

# Executive Council (EC) Capacity Development Panel (CDP)

Report of the 2<sup>nd</sup> Meeting

3 and 4 February 2021 (videoconference)

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#### **EXECUTIVE SUMMARY**

The second meeting of the EC Capacity Development Panel (CDP-2) was held virtually on the 3rd and 4th of February 2021. The meeting inter alia reviewed and deliberated on the reports of the expert and task teams, discussed their future work plans, put together recommendations for EC-73, and agreed on its integrated future activities, including a plan for review of the Capacity Development Strategy.

**Expansion of membership:** Following an expansion of the membership of the Panel, as recommended by EC-72, the meeting was joined by the following additional members representing; the Services Commission (SERCOM), Hydrological Coordination Panel (HCP), Research Board (RB), the WMO-IOC Joint Collaborative Board (JCB), and the Infrastructure Commission (INFCOM). Prior to the second session of CDP, these additional members earlier joined the intersessional work of the various Task and Expert Teams, namely; i) Expert Team on Policy Development and Institutional Matters, ii) Expert Team on Human Resources Development, Education and Training, iii) Expert Team on Capacity Development through WMO Technical Departments, iv) Expert Team on Resource Mobilization, Partnerships and Development Assistance and v) Task Team on Revision of Capacity Development Strategy.

**Observations on matters relating to programme and coordination:** The Panel made observations on various aspects of WMO capacity development activities that are worthy of considering in the course of policy and programme coordination, development and implementation. The key observations are as follows:

- 1) It is necessary to further increase accessibility to documentation, especially through the WMO Community Platform.
- 2) It is important to understand the difference between policy gaps and philosophical differences, as each will have a different solution. Policy gaps are easy to fix.
- 3) It is necessary for the WMO Secretariat to take into account the recommendations of the WMO Global Campus Event "Responding to Challenges Beyond the New Normal" (held online 20-22 January 2020), for the development of the education and training programme and support to the WMO Regional Training Centres (RTCs).
- 4) The Education and Training Programme (ETRP) needs to be strengthened by setting up targeted fellowships programs to address the gaps in training.

- As a way of developing resources for leadership of NMHSs, acknowledge the plan of the Secretariat to prepare a publication on Leadership and Management, based on experience of the training programmes organized by WMO in collaboration with Meteorological Services of Singapore for Regional Associations II and V since 2018.
- 6) To improve the link between RTCs and Education and Training Collaborating Partners with regional projects which have available funds, so that the training component is considered at the early stage of the project.
- 7) There is an overall need for technical personnel in instruments and observations. Particular priorities include the capacity development for the implementation and operation of the Antarctic Network of the Regional Climate Centres (RCCs). The interaction with the Global Ocean Observing System (GOOS) regional alliances and capacity development activities under this framework will be central, since it is one of the pillars of regional action.
- There is a need to ensure the availability of training in various languages. An example of how to address this issue is the collaboration with Global Atmosphere Watch Training & Education Centre (GAWTEC) for the provision of training in Spanish. This example is a good practice to be shared and may be replicated in other regions. Delivering training in the various WMO official languages would cover an important gap in terms of technical capacity and language barrier.
- 9) There is a need to involve more experts from other relevant disciplines in the development of training. Emphasis should be placed on developing partnerships with academic institutions and professional and scientific associations. These should include exchanges of academic staff. The pool of well-trained meteorologists should be supported by other professionals who understand climate and can work with specific climate-sensitive sectors (e.g., agriculture, health). This could be an opportunity to further promote the WMO Global Campus, enhance the WMO LEARN Portal, expand the scope of Train-the-Trainer opportunities and strengthen the relationship with other communities such as CALMet Commons.
- **10)** There is a need to enhance communication of meteorological and climatological information to different stakeholders. Using a narrative structure, images and graphs, is just as important as the language we use to communicate science clearly and effectively.

**11)** Ensure that the assessment of development needs/gaps in each Region feeds into the revised Capacity Development Strategy (2022).

**Recommendations for consideration by the Executive Council:** In furtherance of its future activities, some recommendations have been prepared for consideration by EC-73, in its endeavors to enhance the development and coordination of capacity development policy and activities in the entire WMO through its Panel. In this regard, Council will be requested to task the Panel as follows:

- 1) Collect and assess best practices from the most successful NMHSs in meeting global standards in the delivery of services. This exercise will help in promotion of standards worldwide. To minimize extensive surveys to the agencies, the data could be mined from all available datasets.
- 2) Develop a system of assessing the status of capacity of Members to deliver service, which could complement the ISO certification that some Members are already subjected to.
- Review or update as the case may be, of some of the current competency frameworks, as well as develop new frameworks in areas not yet addressed, in coordination with the Education and Training Office, towards ensuring that they reflect requirements for expected competencies in new or emerging technologies and processes as they reach sustainable operational status.
- **4)** In coordination with the Secretariat departments, work with INFCOM in the development of a capacity development framework to support the implementation of its activities.
- 5) Develop strategies to foster engagement of academics and NMHSs staff at the local and regional levels on research questions and ways in which results could be applied for improved operational delivery.
- enhancement of research-to-operation connection as additional way of strengthening capacity of NMHS, which should among others contain; i) example from research institutions that have made significant contributions to capacity development in climate forecasting, ii) recommendations on how to enhance the involvement of academics in Climate Outlook Forums, iii) advisory on how to promote targeted

training of skilled personnel to access, interpret and translate climate information into decision-relevant products and services, iv) approaches to promotion of capacity development in hydrology, meteorology and climate sciences at regional level through promotion of collaboration and communication between Regional Centres such as RTCs, WIGOS, GTS, WIS, etc.

- **7)** Prepare a report on best practices for NMHSs in terms of working with development partners/Government, with the aim of enhancing knowledge sharing in this area.
- 8) Contribute to the Fourteenth WMO Education and Training Symposium (SYMET-14) which will be held in 2021, as additional input to the development and promotion of education and training activities of the Organization.

**Revision of the WMO Capacity Development Strategy:** The Task Team on the revision of the WMO Capacity Development Strategy is in the planning stages of the project. The team sees that there are several key drivers in revising the strategy. These include: i) WMO governance structure; ii) WMO Strategic plan; iii) Input from the CDP Expert Teams; iv) Input from Technical Commissions, and v) Input from the Regional Associations.

Calendar year 2021 will commence the work of this task team. The following are the tasks to be achieved in order to accomplish the work of this task team:

- a) Seeking additional subject matter experts and task team members.
- **b)** Creating a realistic timeline to create a first draft of the WMO Capacity Development Strategy and Implementation Plan.
- Cross-walking the contents of the existing WMO Capacity Development Strategy and Implementation Plan (WMO-No.1133) with the new WMO Strategic Plan 2020-2023 (WMO-No.1225).
- **d)** Ensure assessment of key development needs/gaps in each Region (including consideration of significant upcoming initiatives under the Technical Commissions and Research Board which may require capacity development support) feed into the revised Capacity Development Strategy (2022).
- e) Assessing the reports and recommendations from the Expert Teams from CDP-2.
- **f)** Seeking input from the appropriate WMO Technical Departments.

**g)** Creating a table of contents and project timeline for the new WMO Capacity Development Strategy and Implementation Plan.

**Future activities:** In terms of its future work, the Panel will continue to work through its Experts and Teams on various aspects of mandate. The Teams have given an indication of their respective activities, details of which are contained in the report of its meeting. It is expected that the outputs form the works of the Teams will form key elements for revision of the WMO Capacity Development Strategy, as well as form critical elements of prospective decisions and resolutions of the Executive Council on capacity development and related endeavors of the Organization.

## **FULL REPORT**

### 1. Opening of CDP-2 and Adoption of the Agenda

The meeting, through videoconferencing, was opened by Dr. Agnes Kijazi, the Chair of the Capacity Development Panel (CDP) at 1200 UTC on 3 February 2021. The agenda was adopted and the workplan was accepted by the Panel as given in Annex-I.

The Chair welcomed nominated five members representing the Services Commission (SERCOM), Hydrological Coordination Panel (HCP), Research Board (RB), the WMO-IOC Joint Collaborative Board (JCB), and the Infrastructure Commission (INFCOM). An updated Membership of Capacity Development Panel (CDP) in Annex-II.

It is noted that the expert and task teams had been discussing actively on the Moodle site since their inception. In addition to these forum discussions, the teams had virtual meetings as follows; the ET on Policy Development and Institutional Matters (CDP-ET-PDIM) met on 23 September 2020, 9 November 2020, and 19 January 2021; the ET on Human Resources Development, Education and Training (CDP-ET-HRDET) met on 15 October 2020; the ET on Capacity Development through WMO Technical Departments (CDP-ET-TDs) met on 23 September 2020, 9 November 2020, and 14 January 2021; and the ET on Resource Mobilization, Partnerships and Development Assistance (CDP-ET-RMPDA) met on 8 October 2020 and 11 January 2021.

The Chair highlighted that, as indicated in the agenda, this second meeting would be focusing mainly on concrete plans and recommendations of the teams, essentially, putting together recommendations for the EC-73 including review of the Capacity Development Strategy.

# 2. Review of implementation of recommendations of the first meeting (CDP-1)

In its first meeting, the Panel had decided on 15 recommended actions. The Chair called on the Secretariat to give a brief overview of the actions taken regarding these recommendations. The Secretariat provided a detailed presentation on the actions as given in the table in Annex-III.

# 3. Review of relevant decision of EC-72 and discussion of follow-up actions

It is noted the abridged final report of the seventy-second session of the WMO Executive Council (EC-72) was published on the WMO Library. It was noted that there were a number of resolutions and decisions relevant to the work of the Capacity Development Panel. These

are Resolution 4 (EC-72) "Strengthening Marine Services", Resolution 10 (EC-72) "WMO Regional Training Centres (Reconfirmation)", Resolution 12 (EC-72) "Rules of Procedure for the Non-Constituent Bodies Established by Cg-18 and EC-71", Decision 11 (EC-72) "Scaling up Effective Partnerships and Scope, Scale and Progress of WMO Development Projects", Decision 12 (EC-72) "Recommendations for Revision of the WMO Capacity Development Strategy", Decision 13 (EC-72)"Developing and Sustaining Core Competencies and Expertise", and Decision 15 (EC-72) ""Review of the Membership of Bodies Established by Congress and the Executive Council".

The Chair called upon Secretariat to keep the Panel informed on part of the implementation of the mentioned EC-72 Resolutions and Decisions. A brief introduction was provided by the Secretariat and extracts with related follow-up actions were given in the tables in Annex-IV.

# 4. Report and Recommendations of the Expert Team on Policy Development and Institutional Matters (CDP-ET-PDIM)

#### 4.1. Meetings and other discussions:

During the reported period, the CDP-ET-PDIM has held two virtual meetings (23 September 2020, 9 November 2020, and 19 January 2021), and had many email discussions more focused on cleaning up the project plan and reporting.

#### 4.2. Project details:

- i) Legislative measures, strategic and operating plans, WMO Gender Equality Action Plan.
- ii) Communications, outreach and negotiation needs and skills.
- **iii)** Advocacy efforts to governments, end-users, decision-makers on the socio-economic benefits of investments in NMHSs.
- **iv)** Assistance to NMHSs to incorporate WMO and national requirements into national policy, legislative frameworks and national development plans.
- v) Review the activities of the technical commissions and regional associations aimed at developing, communicating and assisting NMHSs in developing countries to comply with WMO standards and recommended practices.

- **vi)** Review and analyze gaps in the WMO Gender Equality Action Plan and provide guidance regarding WMO efforts in gender equality.
- **vii)** Policy-related gaps in the capacity of NMHSs to exchange data, to deliver adequate services, to comply with WMO Standards and recommended practices, bearing in mind the Geneva Declaration 2019 (Public, Private partnerships included).
- **viii)** Promotion of principles to global meteorology, hydrology and climatology including authoritative voice, common standards, data and product sharing.

#### 4.3. Scope of the work:

- i) Develop strategies and recommendations to increase visibility and sustainability by demonstrating, promoting and communicating the societal-economic value of their weather, climate, water and related environmental observations, research and services.
- ii) Develop and deliver a suite of training products and services that support NMHSs and RTCs to build and enhance their stakeholder communication, outreach and negotiation skills.
- **iii)** Assist NMHSs in the development of advocacy strategies, frameworks and tools to be used to inform governments, end-users and decision-makers of the socio-economic benefits of NMHSs.
- iv) Develop strategies to assist NMHs to implement WMO and national requirements.
- v) Identify the current gaps to the compliance of Members, in particular developing countries, to WMO standards and recommended practices and encourage the establishment of systems between TCs, RAs and the WMO Secretariat for improved capacity development support.
- **vi)** Address gender equality issues with the objective to fully realize the professional and human potential of both women and men through equal employment opportunities and to provide improved environmental services that are responsive and sensitive to women's and men's needs and will make a difference to their lives.
- vii) Identify the policy gaps in capacity of NMHSs to the free exchange of data, delivery of services, to comply (as in project V) to the required standards and recommended practices, (This project needs to work with Project V together for the identification of the gaps in compliance to link it to the policy gaps).

**viii)** Promote the principles for global meteorology, hydrology and climatology including authoritative voice, common standards, data and product sharing.

#### **4.4. Goals:**

- i) Improved institutional and governance arrangements of NMHS aimed at enhanced visibility at the national level as well as increased political awareness. Improved understanding of the needs of LDCs and SIDS and enhanced engagement with the countries directly.
- ii) Identification of the national and regional needs for communication, outreach and negotiations training, and Assessment Report of highlighting the state-of-play and regional needs as well as any gender, demographic and cultural nuances where appropriate that may guide the development and delivery of training programmes. (8 months).
- **iii)** Development of a draft advocacy programme in at least one NMHS in each WMO RA to illustrate the effectiveness of this approach to inform governments, end-users and decision-makers of the socio-economic benefits of NMHSs.
- **iv)** Improved success of implementing WMO requirements institutional and governance arrangements of NMHS in NMHs aimed at enhanced service delivery and capacity.
- v) Improved understanding of the needs of LDCs and SIDS and enhanced engagement with the countries directly.
- **vi)** Mechanism for regular and effective, multi-directional communication between the WMO Secretariat, technical commissions and regional associations to provide assistance to developing countries towards increasing compliance with WMO Standards and Recommended Practices.
- vii) Designation, in each constituent body, of a gender equality focal point with specific terms of reference and work plans, the development of a training module on gender, weather, water, climate and related environmental conditions in cooperation with the RTCs, the organization of regional and sub-regional gender equality conferences, forums and events on the gender-specific dimensions of weather, water and climate to improve awareness, and the identification of strategies and mechanisms to integrate gender mainstreaming into service provision and have them implemented by NMHSs.

- **viii)** Document to list the policy gaps of NMHs in the implementation of the WMO standards and recommended practices and working with project goal V to improve the situation.
- **ix)** Documents to list the policy gaps for free data exchange and service delivery to be able to guide support to the NMHSs, and to identify the status of the authoritative voice and communications within the NMHSs countries with promotion for the establishment of such a communication unit if it is not available.

# 5. Report and Recommendations of the Expert Team on Human Resources Development, Education and Training (CDP-ET-HRDET)

#### 5.1. Meetings and discussions:

The CDP-ET-HRDET has held a virtual kick-off meeting on 15 October 2020. Due to diversity of time zones of ET members, the communication with the CDP-ET-HRDET members and WMO representatives was held mainly through the Moodle Platform. In addition, the facilitator of the ET organized three virtual meetings of the CDP-ET-TDs (23 September 2020, 9 November 2020, and 14 January 2021) and had several discussions with CDP-ET-PDIM and CDP-ET-TDs facilitators to help coordinate actions and avoid duplication of efforts. Finally, on 20 January 2021 the facilitator of the ET presented the summary of CDP-ET-HRDET activities at the WMO Global Campus Event "Responding to Challenges Beyond the New Normal."

## 5.2. Overview of EC-72 decisions relevant to the CDP-ET-HRDET working plan:

Decision 4.4(1)/1 (EC-72) Scaling up effective partnerships and scope, scale and progress of WMO development:

- 4) To request the Capacity Development Panel:
- (a) To identify opportunities and complementarity, while reviewing the WMO Capacity Development Strategy, among all WMO initiatives to strengthen capacity of developing Members avoiding duplication.;
- (b) To develop appropriate guidelines supporting the implementation of the WMO initiatives to strengthen the capacity of developing country Members;

(c) To support the independent evaluation of the WMO Secretariat implemented projects;

Decision 4.4(2)/1 (EC-72) Recommendations for revision of the WMO Capacity Development Strategy:

- 1) To request the EC Capacity Development Panel to:
- (c) Ensure that the strategy takes into account ways in which the WMO Regional Training Centres, WMO training partners and WMO specialized Centres can increase their support to capacity development initiatives and means in view of COVID-19
- (g) Encourage training institutions to embrace online training where possible

  Decision 4.4(3)/1 (EC-72) Developing and Sustaining Core Competencies and Expertise:
- (1) To request the EC Capacity Development Panel to:
- (a) Evaluate and recommend processes for the assessment of impacts of education and training initiatives offered by WMO RTCs, the Secretariat and WMO Education and Training Partners, for selected representative initiatives, to ensure the continuous improvement of education and training initiatives by assessing their value to Members;
- (b) Review and recommend mechanisms for WMO RTCs and other WMO Education and Training Partners to ensure and document that their curricula follow WMO standards, as outlined in WMO-No. 49, WMO-No. 1083, and WMO-No. 1209;
- (c) Review outcomes of the WMO Global Campus initiative and recommend additional outcomes and methods for further achievement of its objectives;
- (d) Finalize the process of reviewing the BIP-M and BIP-MT by evaluating the revision proposals put forward by the Expert Teams and the input on these proposals derived from Members' comments, and that it be submitted to Cg-19 for approval;
- (e) Review the WMO competency frameworks and identify relevant gaps, taking into account the WMO Reform, including competencies in environmental monitoring

## 5.3. Revision of the ToR of the Expert Team and Development of Operating Plan:

Approaches for monitoring and making recommendations in addressing the tasks have been identified in line with the Terms of Reference: i) Efforts to increase training and long-term education for developing countries.

To improve the coverage of training and long-term education in a pandemic situation and the development of the information society in general, it is worth focusing with due regards to the following aspects on the development of distance learning:

- For a smooth transition from a complete physical mode training to a full virtual mode training new tools, methods and approaches are required, for example, for assessing the learning outcomes;
- it is necessary to determine the level of preparedness of different Members for the distance/virtual learning mode. Relevant amendments have been suggested to the WMO Annual Survey on the Promotion of Training Opportunities to identify that;
- the potential of international platforms such as the WMO Global Campus should be used for developing joint training programs to create content with an optimal quality / price ratio.
- **ii)** Address gaps, qualification standards and competency implementation, WMO Regional Training Centres, education and training collaborators and implementation of education and training activities, WMO Global Campus initiative and opportunities.

This is an extremely broad point covering the most important topics. During the associated discussion, the opinion was expressed that the gaps should be first identified, and this requires training of experts to assess general status of human resources development at NMHSs and their staff compliance with the competency frameworks suggested by WMO; other interventions could be analysis of RTC programs and their compliance with the WMO recommendations in education and competency frameworks; the development of the Global Campus as a tool to promote modern standards. RTCs could take the lead in capacity development to address gaps.

**iii)** Review education and training policies, qualification and competency standards, Regional Training Centre assessment practices, and WMO Global Campus activities.

In the context of WMO governance reform and the transition to Earth system services, we need to determine how fully the existing competency frameworks and qualifications cover all the working functions existing at NMHSs. It is worth drawing up a plan for the preparation of either additions to existing documents (such as BIP-M), or the development of new ones. This, in turn, will require the development of recommendations for the implementation of the new qualification framework.

RTC external assessment procedure is currently extremely labor-intensive and we may try to simplify it. There are approaches and procedures for assessing the aviation units by trained assessors. It might be worth trying to apply these approaches to RTC assessment by making it simpler.

Many RTCs are still not quite active in promoting their training events through the Global Campus calendar or their training resources through the Global Campus library. For any new training resources, there should be an established regular advertising procedure that meets the standards and objectives of the WMO Global Campus. In addition, organizations willing to participate should be trained in how to transform their course advertisements into Global Campus descriptors, how to work with intellectual property rights to develop and reuse materials, how to design a program that will focus on developing certain competencies to a certain level. We need to share best practices from the organizations most active in the Global Campus, and we may need some training on how to effectively use the calendar and the library. A proposal was also made on the need for developing the basic programs for various job functions, consisting of two parts, "academic" (BIP-M based) and competency-based ones.

**iv)** Identify training needs and give guidance on how to strengthen the capacity of training institutions, as well as recommend training activities to address gaps in formal and continuing education.

During the discussion, an essential stage of the training needs analysis through consumer surveys was recognized, and the dissemination of best practices in this area and the development of unified approaches to the quality system and training assessment were suggested. A collection of papers on the best practices in training needs analysis can be called from RTCs and training partners, and the course similar to the WMO Global Campus Innovations course can be suggested to train RTC staff in training needs analysis.

#### **v)** Leadership and management issues.

It was suggested to consider an international orientation program for newly appointed PRs, RTC directors or senior NMHS management. Naturally, such programs for representatives of several countries will allow establishing multilateral contacts, Hydromet Alliance representatives can also be invited to such trainings to establish public-private partnerships. Such trainings could be conducted in conjunction with WMO Congresses / Executive Councils, which would reduce their costs for NMHSs.

With the activity of EC Panel of experts on education and training being terminated under the new WMO management structure, it was proposed to add the following two elements to CDP-ET-HRDET ToR:

- **vi)** Former Panel of experts ToR No (4) To provide the Executive Council with advice on actions for monitoring, strengthening and enhancing the WMO ETRP including the designation of suitable training institutions such as WMO Regional Training Centres;
- **vii)** Former Panel of experts ToR No (5) To provide the Executive Council with advice on actions to improve the effectiveness of the Fellowship programme based on an ongoing review and evaluation of the programme.

# 6. Report and Recommendations of the Expert Team on Capacity Development through WMO Technical Departments (CDP-ET-TDs)

#### 6.1. Meetings:

During the reported period, the CDP-ET-TDs held three virtual meetings (23 September 2020, 9 November 2020, and 14 January 2021). The facilitator, Dr. Carla Gulizia, attended a joint meeting with members of the SERCOM and the WMO Services Department on October 5th, 2020. She had also met virtually with the Research Board representative, Prof. Dr. Mary Scholes, on January 8th, 2021. The facilitators of CDP-ET-TDs and the ET on Resource Mobilization, Partnerships and Development Assistance (CDP-ET-RMPDA) have closely interacted by email exchange to coordinate actions and avoid duplication of efforts. Communication with the CDP-ET-TDs members and representatives of the WMO Bodies and Technical Commissions was held mainly through the Moodle site, though some communication through personal emails was also addressed for further engagement.

### 6.2. Interaction with WMO Technical Departments in the Secretariat:

The reports of the CDP-ET-TDs meetings were shared, on a regular basis, not only with the members of the CDP-ET-TDs (through the Moodle site) but also with the WMO Technical Departments by personal email correspondence. The motivation for this, in line with the ToR v ("work in close collaboration with the appropriate departments in the Secretariat"), was that they could be aware of the work of the ET as well as contribute if they identify any thing that has an implication on their programme, so they can quickly react. In addition, the Services Department has provided up-to-date information on how the Technical Department is working to support Member capacity development (EC-72 SG

presentation, Concept note for a meeting on Implementation Arrangements, State of Climate Services Reports (2019, 2020), and portfolio monitoring – extra-budgetary projects list). The facilitators of the CDP-ET-RMPDA and CDP-ET-TDs were invited to the Twinning Arrangements Meeting which is tentative to occur in early February 2021. The Science and Innovation Department has facilitated a preliminary list of initiatives and courses. The Senior Scientific Officer from the Water and Cryosphere Coordination has informed the priorities established by the HCP which refer to updating of the existing Strategy on Capacity Building in Hydrology and Water Resources 2017-2020 adopted by the Commission for Hydrology in 2016 and endorsed by Executive Council. The final report of the HCP latest meeting in 2020 was also shared through the Moodle site for consideration.

## 6.3. Revision of the ToR of the Expert Team and Development of Operating Plan:

The Terms of Reference (ToRs) of the CDP-ET-TDs were revised. Suggestion for expansion on the ToR item v. and addition of item vi. is proposed taking into account the ongoing interaction with the WMO Bodies and Technical Commissions representatives, as well as with the rest of the CDP-ETs facilitators. Below the full list of the CDP-ET-TDs ToRs is listed with the suggested adjustment highlighted in red:

#### Monitor and make recommendations on the following:

- i. Capacity Development of technological infrastructure
- ii. Capacity development in Services delivery
- iii. Capacity development in hydrology and water resources
- iv. Capacity development in research, science and innovations
- v. Work in close collaboration with the appropriate departments in the Secretariat as well as with WMO Bodies and Technical Commissions
- vi. Work in close collaboration with the rest of the CDP-ETs identifying possible interactions based on the contributions received by the CDP-ET-TDs invited members
- vii. Promotion of existing strategies on capacity development in various areas of services delivery, hydrology and water resources, by way of providing advisory on how to support least developed and developing countries
- viii. Promotion of existing strategies in the areas of research, science and innovation.

An Operating Plan for internal organization within the CDP-ET-TDs was developed and revised over the three held ET's virtual meetings. A copy of the latest version can be access <a href="https://doi.org/10.2016/nc.

# 6.4. Interaction with WMO Bodies and Technical Commissions through communication with representative members in the CDP-ET-TDs:

Nominations for the representatives of WMO Bodies and Technical Commissions have been approved in the course of the second semester of 2020, though several of them were implemented by the end of the 2020. Thus, interactions with some of them could not be fully completed and consequently the corresponding contributions will be encouraged for the next intersessional period. The representatives from the Research Board, INFCOM, SERCOM, HCP, and RTCs have provided relevant information which will be synthesized below. Full reports addressing priorities, needs, recommendations and issues to be considered on capacity development aspects from each of them are available within the working files folder designated for the use of the CDP-ET-TDs in the <u>WMO Moodle site</u>.

The representative of the Research Board, Prof. Dr. Mary Scholes, provided several recommendations and issues on capacity development gaps according to each region, mainly focused on developing countries. The emphasis was put on recommending targeting programmes taking into account what kind of capacity development is needed, for whom and by whom. It is relevant to gather this information in a database. In addition, capacity development for Early Career Researchers (ECRs) needs to be addressed independently of the region of origin. Connection between WMO Programmes and ECRs networks, potential integration of ECRs community with international high-level panels, are possible ways of bridging this capacity gap. Finally, there is a need to change the paradigm and think not only in terms of capacity development but also in capacity recognition. This would erase the stigma of the geographical region of origin, if from a developed or a developing country. The latest version of the Concept Note "Innovation in Regions" that the Research Board is preparing was also shared.

The representative of the SERCOM, Prof. Dr. Roger Stone, has gathered and synthesized relevant information regarding capacity developments issues and recommendations based on several Standing Committees feedback. This documentation was uploaded into the Moodle site and discussed with the ET-TDs members who attended the third meeting of CDP-ET-TDs. Dr. Carla Gulizia have extracted particular issues and recommendations that were more aligned with the ToRs of other CDP-ETs and shared these with the respective facilitators.

The representative of the INFCOM, Jennifer Milton, has provided a report and overview of the identification and monitoring of Capacity Development activities supporting the implementation of new or modified technological systems, observations and infrastructure supporting weather, water, climate and the environment.

The representative of the HCP, Prof. Dr. Christophe Cudennec, has informed on the principles and recently-launched process of updating the Strategy on Capacity Building in Hydrology and Water Resources.

The representative of the RTCs, Prof. Dr. Odjugo Peter, has gathered and synthesized information provided by several RTCs worldwide addressing three main issues: successes, priorities/gaps and recommendations/suggestions. The individual RTCs questionnaire's responses as well as the consolidated final summary report provide relevant insights that could be useful for distributing among the RTCs, as well as with Education and Training Collaborating Partners, for sharing of good practices and fostering collaborations among regions.

# 7. Report and Recommendations of the Expert Team on Resource Mobilization, Partnerships and Development Assistance (CDP-ET-RMPDA)

#### 7.1. Meetings and wider input:

Since the first CDP virtual meeting in August 2020, the CDP-ET-RMPDA has held two virtual meetings (8 October 2020 and 11 January 2021). In addition, the facilitator, Karen McCourt, has had several discussions with members of the WMO Secretariat around the proposed outputs outlined below, and further discussions are planned following feedback from the second meet on the 11th January. The facilitators of CDP-ET-TDs and the CDP-ET-RMPDA have also closely interacted by email exchange, and attendance at ET meetings, to help coordinate actions and avoid duplication of efforts.

### 7.2. Drivers for proposed outputs:

The virtual ET meetings have centred around determining potential outputs under the current ET Terms of Reference, with a focus on making sure any activities:

**a)** Add value to the work of WMO – with a greater focus on providing feedback/guidance as opposed to practical implementation of specific capacity development activities (much of which is being done elsewhere across WMO, and by Members);

- **b)** Assist with the effective coordination of capacity development across WMO, which is believed to be central to the TORs of the wider Panel;
- c) In line with b), feed into work on the revised Capacity Development Strategy;
- d) Complement, rather than duplicate, any other work in the CDP-ETs and across WMO;
- **e)** Recognises the busy schedules of all team members and contributors to the ET, so ensuring that we are prioritising those activities that will add most value as per a); and
- **f)** Consider feedback from EC-72 held virtually in September 2020.

Relevant feedback from EC72:

EC-72 Paper 4.4(1):

- "(4) To request the Capacity Development Panel:
- (a) To identify opportunities and complementarity between all WMO initiatives to strengthen capacity of developing Members when reviewing the WMO Capacity Development Strategy;
- (b) To develop appropriate guidelines supporting the implementation of the WMO initiatives to strengthen the capacity of developing country Members;
- (c) To support the independent evaluation of the WMO Secretariat implemented projects;"

Point (c) is also related to:

The Executive Council Decides (1) (f) To base the decision on scope and scale of future development projects implemented by the WMO Secretariat on a strategy that needs to be informed by an independent evaluation of relevance, effectiveness, efficiency and fiduciary risks of the current approach.

The TORs - and associated proposed outputs (9.4) remain initial proposals for the first year of the CDP-ET-RMPDA, so may be adjusted/added to over time.

# 8. Report and Recommendations of the Task Team on Revision of WMO Capacity Development Strategy (CDP-TT-WCDS)

The overarching goal of this Task Team is to ultimately revise the WMO Capacity Development Strategy Plan (2015) WMO-No.1133 in light of the reform and new direction of the WMO on capacity development. The two most significant changes are the WMO Strategic Plan 2020-2023 and the creation of the Capacity Development Panel (CDP). The Panel consists of four Expert Teams and one Task Team. They are as follows:

- 1. Expert Team on Policy Development and Institutional Matters
- 2. Expert Team on Human Resources Development, Education and Training
- **3.** Expert Team on Development through MCO Technical Departments
- 4. Expert Team on Resource Mobilization, Partnerships and Development Assistance
- 5. Task Team on Revision of WMO Capacity Development Strategy

The work of the Expert Teams will drive the majority of the content in the revised strategy and implementation plan.

Thus far the Task Team has been monitoring the discussions and outputs of the Expert Teams as well as reviewing the previous WMO Capacity Development Strategy and Implementation Plan and WMO Strategic Plan 2020-2023.

## 9. Future work programme of the Panel and the next meeting (CDP-3)

#### 9.1. Future work plan of CDP-ET-PDIM

1. Assess number of countries with Legislation/Strategic plans and analyse best practices of successful LDSs and SIDS. Analyse and collect best management practices. Identify barriers to providing input to database.

Strengthen managerial planning and policy development skills by identifying PRs/Directors with strategic legislative plans, analyse and collect best management practices and share them and train PRs/Directors in managerial training and policy skills.

Identify IDC and SIDS not in the country profile database. Identify the barriers to providing input to the database, create and communicate benefits and training to increase participation to be able to increase country profile database by end 2023.

2. Conduct a desktop needs assessment to identify the national and regional needs for communication and outreach training and training in negotiations that will be supported by the following actions (i) survey of members to assess the demand for such training programmes and their timetable for implementing the benefits of such training - the survey will also identify those institutions that already have the core skills described, how the skills were acquired and the benefits derived from utilizing these skills; and (ii) update the WMO Country Profile Database with the survey results.

Prepare a report of the assessment and its findings highlighting the state-of-play and regional needs as well as any gender, demographic and cultural nuances where appropriate that may guide the development and delivery of training programmes. (8 months)

**3.** Encourage WMO Secretariat to work with Regional Associations and stakeholders to design and deliver at least one targeted training course in each region based on the identified priority for the region. (8 months)

Identify and assess advocacy approaches currently used by NMHSs and other industries, through a desktop study, to demonstrate the socio-economic benefits of their products and services - successes and failures. This activity will involve an indepth literature review and the circulation of survey forms to NMHSs and other industries globally. The survey should identify how many NMHSs have conducted socio-economic benefit studies. Specific deliverable will be a report that synthesizes the findings of the study and specifically outlines the factors driving the success and failures of advocacy efforts. The study should explore industry specific factors, regional setting, national and regional circumstance, demographic and gender factors, cultural factors and economic factors. (6-month consultancy)

- **4.** Assess number of NMHs meeting WMO requirements, analyse best practices of successful NMHs and create a template for NMHSs to implement the WMO and national requirements.
- **5.** Identify documentation containing the WMO Standards and Recommended Practices and ensure that all are accessible to the technical commissions and regional associations, identify relevant aspects of work plans of RAs and TCs that address the

development of NMHSs in developing countries, assisting them to comply with standards and recommended practices.

Establish system to track compliance of developing countries with standards and recommended practices through RAs for benefit of TCs and WMO Secretariat.

Identify and communicate priority issues to address compliance with standards and recommendations, identify possible resources to be made available to developing counties to address capacity gaps to compliance.

Develop guidance document for RAs to assist members, especially developing countries to meet the standards and recommended practices.

- 6. Secretariat inviting CB to nominate the gender equality FP, Secretariat and WMO ETR to consult the directors of RTC and other members of the technical commissions on gender related issues, investigating the development of a training module on gender, weather, water, climate and related environmental conditions via regional and subregional conferences, training modules adopted. Strategies and mechanisms implemented by NMHSs.
- **7.** Identify policy gaps for the implementation of WMO Standards and Recommended Practices by working with Regional Associations and create a document listing perceived gaps.
- **8.** Establish the gaps in the data exchange in the different regional associations.

Identify policy gaps for the fostering of Pubic Private partnerships by NMHSs by working with the regional associations.

Identify relevant aspects of service delivery in the different regional associations to gauge the gaps in service delivery and afterwards the forecasting services.

Make relevant information available to other working groups to assist NMHSs to address the perceived policy gaps as they become available.

- **9.** Update the data base for focal points for communications within Regional associations and NMHSs.
- **10.** Identify the communication strategies within the NMHSs by liaising with the relevant personnel responsible for communications within the NMHSs.

Communicate with the relevant authorities around the use of acceptable methods to establish what is the authoritative voice within the host countries of the NMHSs.

Assist the different communication sections to promote the actions within the NMHSs by documenting and promoting success stories. Continuously.

Identify and promote the benefits of data sharing and products.

#### 9.2. Future work plan of CDP-ET-HRDET

It was agreed to focus CDP-ET-HRDET activities in the following inter-congressional period on the following issues:

- **1.** To develop recommendations to RTCs on sustainability of education and training under COVID19 pandemic;
- 2. To continue work on revised and updated BIP-M and BIP-MT;
- 3. To outline a roadmap for developing competencies in relevant areas;
- 4. To recommend the mechanisms for WMO Regional Training Centres and other WMO Education and Training Partners to ensure and document that their curricula follow WMO standards;
- **5.** To develop the Global Campus roadmap for further achievement of its objectives.

#### 9.3. Future work plan of CDP-ET-TDs

- 1. Continuous communication and interaction with CDP-ETs members, representatives from RB, HCP, JCB, SERCOM and INFCOM, as well as with Technical Departments Directors at a regular basis for continuous improvement of coordination and delivery of WMO capacity development activities.
- **2.** In the short-term, closely interact with the HCP representative, Prof. Dr. Christophe Cudennec, to enhance collaboration from the CDP in the revision of the Strategy on CD in HWR undertaken by HCP.
- 3. During this first intersessional period, the CDP-ET-TDs mainly focused in addressing what has been done and what were the priorities and needs identified by each of the WMO Bodies and Technical Commissions, based on the contributions received so far. Technical Departments in the Secretariat had also provided some recommendations and further information on their expected activities. The future plan will be focused in assessing the connection between these priorities and identified needs and how

the CDP may be instrumental in connecting those with the work that is being done at the regional level. The latter should be focused taking into account not only the specific needs provided by the INFCOM and SERCOM but also considering the global framework towards CD institutional recognition, presented by the RB representative.

**4.** Local/regional consultations from each of the ET members will be encouraged towards the promotion and sharing of good practices among WMO Members. This will also help in providing case studies to be included in the updated version of the CD Strategy and Implementation Plan (WMO. No. 1133), to be finished by 2022.

#### 9.4. Future work plan of CDP-ET-RMPDA

- **1.** Assessment of key development needs/gaps in each Region.
- **2.** Review of current data collection platforms and methodologies and providing recommendations on how best to manage/streamline.
- 3. Review of/guidance on, initiatives (as discussed at EC72) and feedback to EC e.g. Country Hydromet Diagnostics tool, SOFF, othersTBD in discussion with relevant WMO departments/programmes. May need to request further feedback from EC for direction on this, and initiatives that it would be helpful for the CDP, and ET-RMPDA, to provide review and guidance on.
- **4.** Support of the independent evaluation of WMO projects.

This links to feedback from EC-72 around support to this proposed evaluation.

- **5.** Input into guidance/recommendations on the facilitation of twinning arrangements and other innovative modes of bilateral cooperation, and best practise for taking forward.
- **6.** Review and document recommendations on best practise in terms of working with development partners/Government (to enhance knowledge sharing in this area).
- 7. As per tasks from Res 8.3/1(Cg-18), ensure that WMO activities that support capacity development, including the Country Support Initiative and VCP, as well as WMO-related CREWS activities, are complementary and take into consideration the unique national context of Members. Reviewing how these (and other similar) initiatives can fit together and complement/benefit each other.

#### 9.5. Future work plan of CDP-ET-WCDS

In terms of its future work, the Panel will continue to work through its Experts and Teams on various aspects of mandate. The Teams have given an indication of their respective activities, details of which are contained in the report of its meeting. It is expected that the outputs form the works of the Teams will form key elements for revision of the WMO Capacity Development Strategy, as well as form critical elements of prospective decisions and resolutions of the Executive Council on capacity development and related endeavors of the Organization.

Calendar year 2021 will commence the work of this task team. The following are the tasks to be achieved in order to accomplish the work of this task team.

- 1. Seeking additional subject matter experts and task team members.
- **2.** Create a realistic timeline to create a first draft of the WMO Capacity Development Strategy and Implementation Plan.
- 3. Cross-walking the contents of the existing WMO Capacity Development Strategy and Implementation Plan (WMO 1133) with the new WMO Strategic Plan 2020-2023 (WMO 1225).
- **4.** Assess the reports and recommendations from the CDP Expert Teams from CDP-2
- **5.** Seek input from the appropriate Technical Departments
- **6.** Create a table of contents and project timeline for the new WMO Capacity Development Strategy and Implementation Plan.
- **7.** Once the contents and timeline are approved, appropriate task team members will begin drafting the new document.

### 10. Any other Business

## 10.1. Observations on matters relating to programme and coordination:

The Panel made various observations on aspects of WMO capacity development activities that are worthy of considering in the course of policy and programme coordination, development and implementation. The key observations are as follows:

1) It is necessary to further increase accessibility to documentation, especially through the WMO Community Platform.

- 2) It is important to understand the difference between policy gaps and philosophical differences, as each will have a different solution. Policy gaps are easy to fix.
- 3) It is necessary for the WMO Secretariat to take into account the recommendations of the WMO Global Campus Event "Responding to Challenges Beyond the New Normal" (held online 20-22 January 2020), for the development of the education and training programme and support to the WMO Regional Training Centres (RTCs).
- 4) The Education and Training Programme (ETRP) needs to be strengthened by setting up targeted fellowships programs to address the gaps in training.
- 5) As a way of developing resources for leadership of NMHSs, acknowledge the plan of the Secretariat to prepare a publication on Leadership and Management, based on experience of the training programmes organized by WMO in collaboration with Meteorological Services of Singapore for Regional Associations II and V since 2018.
- 6) To improve the link between RTCs and Education and Training Collaborating Partners with regional projects which have available funds, so that the training component is considered at the early stage of the project.
- 7) There is an overall need for technical personnel in instruments and observations. Particular priorities include the capacity development for the implementation and operation of the Antarctic Network of the Regional Climate Centres (RCCs). The interaction with the Global Ocean Observing System (GOOS) regional alliances and capacity development activities under this framework will be central, since it is one of the pillars of regional action.
- There is a need to ensure the availability of training in various languages. An example of how to address this issue is the collaboration with Global Atmosphere Watch Training & Education Centre (GAWTEC) for the provision of training in Spanish. This example is a good practice to be shared and may be replicated in other regions. Delivering training in the various WMO official languages would cover an important gap in terms of technical capacity and language barrier.
- **9)** There is a need to involve more experts from other relevant disciplines in the development of training. Emphasis should be placed on developing partnerships with academic institutions and professional and scientific associations. These should

include exchanges of academic staff. The pool of well-trained meteorologists should be supported by other professionals who understand climate and can work with specific climate-sensitive sectors (e.g., agriculture, health). This could be an opportunity to further promote the WMO Global Campus, enhance the WMO LEARN Portal, expand the scope of Train-the-Trainer opportunities and strengthen the relationship with other communities such as CALMet Commons.

- 10) There is a need to enhance communication of meteorological and climatological information to different stakeholders. Using a narrative structure, images and graphs, is just as important as the language we use to communicate science clearly and effectively.
- **11)** Ensure that the assessment of development needs/gaps in each Region feeds into the revised Capacity Development Strategy (2022).

#### **10.2.** Recommendations for consideration by the Executive Council:

In furtherance of its future activities, some recommendations have been prepared for consideration by EC-73, in its endeavors to enhance the development and coordination of capacity development policy and activities in the entire WMO through its Panel. In this regard, Council will be requested to task the Panel as follows:

- 1) Collect and assess best practices from the most successful NMHSs in meeting global standards in the delivery of services. This exercise will help in promotion of standards worldwide. To minimize extensive surveys to the agencies, the data could be mined from all available datasets.
- 2) Develop a system of assessing the status of capacity of Members to deliver service, which could complement the ISO certification that some Members are already subjected to.
- 3) Review or update as the case may be, of some of the current competency frameworks, as well as develop new frameworks in areas not yet addressed, in coordination with the Education and Training Office, towards ensuring that they reflect requirements for expected competencies in new or emerging technologies and processes as they reach sustainable operational status.

- **4)** In coordination with the Secretariat departments, work with INFCOM in the development of a capacity development framework to support the implementation of its activities.
- 5) Develop strategies to foster engagement of academics and NMHSs staff at the local and regional levels on research questions and ways in which results could be applied for improved operational delivery.
- enhancement of research-to-operation connection as additional way of strengthening capacity of NMHS, which should among others contain; i) example from research institutions that have made significant contributions to capacity development in climate forecasting, ii) recommendations on how to enhance the involvement of academics in Climate Outlook Forums, iii) advisory on how to promote targeted training of skilled personnel to access, interpret and translate climate information into decision-relevant products and services, iv) approaches to promotion of capacity development in hydrology, meteorology and climate sciences at regional level through promotion of collaboration and communication between Regional Centres such as RTCs, WIGOS, GTS, WIS, etc.
- **7)** Prepare a report on best practices for NMHSs in terms of working with development partners/Government, with the aim of enhancing knowledge sharing in this area.
- 8) Contribute to the Fourteenth WMO Education and Training Symposium (SYMET-14) which will be held in 2021, as additional input to the development and promotion of education and training activities of the Organization.

### 10.3. Revision of the WMO Capacity Development Strategy:

The Task Team on the revision of the WMO Capacity Development Strategy is in the planning stages of the project. The team sees that there are several key drivers in revising the strategy. These include: i) WMO governance structure; ii) WMO Strategic plan; iii) Input from the CDP Expert Teams; iv) Input from Technical Commissions, and v) Input from the Regional Associations.

Calendar year 2021 will commence the work of this task team. The following are the tasks to be achieved in order to accomplish the work of this task team:

a) Seeking additional subject matter experts and task team members.

- **b)** Creating a realistic timeline to create a first draft of the WMO Capacity Development Strategy and Implementation Plan.
- c) Cross-walking the contents of the existing WMO Capacity Development Strategy and Implementation Plan (WMO-No.1133) with the new WMO Strategic Plan 2020-2023 (WMO-No.1225).
- **d)** Ensure assessment of key development needs/gaps in each Region (including consideration of significant upcoming initiatives under the Technical Commissions and Research Board which may require capacity development support) feed into the revised Capacity Development Strategy (2022).
- **e)** Assessing the reports and recommendations from the Expert Teams from CDP-2.
- **f)** Seeking input from the appropriate WMO Technical Departments.
- **g)** Creating a table of contents and project timeline for the new WMO Capacity Development Strategy and Implementation Plan.

Once the contents and timeline are approved, appropriate task team members will begin drafting the new document.

### 11. Wrap-up and Closure of CDP-2

It is noted that the Panel has achieved a lot during the short time that it has worked after its inaugurations. This is mainly due to the commitment of its members and the support provided by the Secretariat. The Chair expressed that she looks forward to the continued support to the work of this Panel by all stakeholders.

The Chair declared the meeting closed at 15:00 UTC on 4 February 2020.

## **ANNEXES**

### Annex-I: Agenda and Workplan of the 2<sup>nd</sup> Meeting of the CDP

Day-1 (3 February 2021)

Agenda Item	Title	Document(s)	Lead/Presenter(s)	Time (UTC)	Duration
1	Opening of CDP-2 and Adoption of the Agenda	Doc.1.1_rev01	Chair	12:00 – 12:10	10′
2	Review of implementation of recommendations of the first meeting (CDP-1)	Doc.2.1	Chair & Secretariat	12:10 – 12:25	15'
3	Review of relevant decision of EC-72 and discussion of follow-up actions	Doc.3.1	Chair & Secretariat	12:25 – 12:40	15′
4	Report and Recommendations of the Expert Team on Policy Development and Institutional Matters (CDP-ET-PDIM)	Doc.4.1 & Doc.5.1	Chair & Winifred Jordaan	12:40 – 13:00	20′
	Remarks of the Secretary-General of WMO	n/a	Chair & Prof. Petteri Taalas	13:00 – 13:10	10′
	Short Break			13:10 – 13:20	10'
4	Report and Recommendations of the Expert Team on Policy Development and Institutional Matters (CDP-ET-PDIM) (cont.)	Doc.4.1 & Doc.5.1	Chair & Winifred Jordaan	13:20 – 13:40	20′
5	Report and Recommendations of the Expert Team on Human Resources Development, Education and Training (CDP-ET-HRDET)	Doc.4.2 & Doc.5.2	Chair & Anna Timofeeva	13:40 – 14:20	40′
6	Report and Recommendations of the Expert Team on Capacity Development through WMO Technical Departments (CDP-ET-TDs)	Doc.4.3 & Doc.5.3	Chair & Carla Gulizia	14:20 – 15:00	40′

Day-2 (4 February 2021)

Agenda Item	Title	Document(s)	Lead/Presenter(s)	Time (UTC)	Duration
7	Report and Recommendations of the Expert Team on Resource Mobilization, Partnerships and Development Assistance (CDP-ET-RMPDA)	Doc.4.4 & Doc.5.4	Chair & Karen McCourt	12:00 – 12:40	40′
8	Report and Recommendations of the Task Team on Revision of WMO Capacity Development Strategy (CDP-TT-WCDS)	Doc.4.5 & Doc.5.5	Chair & John Ogren and David Farrell	12:40 – 13:20	40′
	Short Break			13:20 – 13:30	10'
9	Future work programme of the Panel and the next meeting (CDP-3)	n/a	Chair & Secretariat	13:30 – 14:00	30'
10	Any other Business	n/a	Chair	14:00 – 14:40	40'
11	Wrap-up and Closure of CDP-2	n/a	Chair	14:40 – 15:00	20'

# Annex-II: List of participants in attendance and Members of the WMO Executive Council (EC) Capacity Development Panel (CDP)

#### Chair

**Dr. Agnes L. KIJAZI** (advised by Wilbert Muruke, wilbert.muruke@meteo.go.tz)

Director General, Tanzania Meteorological Authority (TMA) 3<sup>rd</sup> Vice-President of WMO agnes.kijazi@meteo.go.tz

#### Vice-Chair

**John OGREN** (advised by Elizabeth Page, <a href="mailto:epage@comet.ucar.edu">epage@comet.ucar.edu</a>) Chief Learning Office, U.S. National Weather Service USA <a href="mailto:john.ogren@noaa.gov">john.ogren@noaa.gov</a>

#### **Regional Association I**

#### **Dr. Winifred JORDAAN**

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#### Raholijao NIRIVOLOLONA

Director General of Meteo Madagascar Madagascar niriraholijao@gmail.com

#### **Regional Association II**

#### **Dr. Somenath DUTTA**

Scientist-F & Head of Meteorological Training Institute (MTI) India dutta.drsomenath@gmail.com

**Dr. Zhiqiang WANG** (advised by Meihua WANG, wangmh@cma.gov.cn) Deputy Director General China Meteorological Administration Training Centre (CMATC) China wzq@cma.gov.cn

#### **Regional Association III**

#### Dr. Carla GULIZIA

Assistant Researcher, Universidad de Buenos Aires (UBA) Argentina qulizia@cima.fcen.uba.ar

#### **Regional Association IV**

#### **Dr. David FARRELL**

Principal, Caribbean Institute for Meteorlogy and Hydrology (CIMH) British Caribbean Territories dfarrell@cimh.edu.bb

#### Regional Association V

**Prof. Dr. Dwikorita KARNAWATI** (advised by Anni ARUMSARI, anni.arumsari@bmkg.go.id)

Head, Indonesia Agency for Meteorology, Climatology and Geophysics (BMKG)

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#### **Regional Association VI**

#### **Karen McCOURT**

Chair of the WMO VCP Informal Planning Meeting (IPM), MetOffice United Kingdom karen.mccourt@metoffice.gov.uk

#### Dr. Anna TIMOFEEVA

Executive Director of the WMO RTC in the Russian Federation Russian Federation <a href="mailto:ipkfin@yandex.ru">ipkfin@yandex.ru</a>

### Representative of the Presidents of the WMO Regional Associations (RAs)

#### **Evan THOMPSON**

PR of Jamaican Meteorological Services and President of RA-IV Jamaica e.thompson@metservice.gov.jm

#### Representative of the WMO Regional Training Centres (RTCs)

#### Prof. Dr. Peter ODJUGO

Professor, Director of RTC Nigeria Nigeria paoodjugo@yahoo.com

#### Representative of the Services Commission (SERCOM)

#### **Prof. Dr. Roger Stone**

Director (Centre for Applied Climate Sciences) University of Southern Queensland Australia Roger.Stone@usq.edu.au

#### Representative of the Hydrological Coordination Panel (HCP)

#### **Prof. Dr. Christophe CUDENNEC**

Professeur, L'institut Agro, Agrocampus Ouest, IAHS France cudennec@agrocampus-ouest.fr

#### Representative of the Research Board (RB)

#### **Prof. Dr. Mary Scholes**

Professor, University of the Witwatersrand, Johannesburg South Africa <a href="mary.scholes@wits.ac.za">mary.scholes@wits.ac.za</a>

#### Representative of the WMO-IOC Joint Collaborative Board (JCB)

#### **Omar CHAFKI**

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#### Representative of the Infrastructure Commission (INFCOM)

#### Jennifer MILTON

Retired Director, Canadian Meteorological Centre Operations Division, MSC Canada

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## Annex-III: Review of implementation of recommendations of the first meeting (CDP-1)

No	Recommendations by CDP-1	Follow-up Actions
1	Propose during EC for expansion of membership of with inclusion of the following, because of the crosscutting nature of capacity development and the need for seamless and effective coordination across the organization: i) one representative of Hydrological Coordination Panel (HCP), ii) one representative of INFCOM, iii) one representative of SERCOM, iv) one representative of Research Board, and v) one representative of JCB	Proposal to EC approved
2	Ensure that up-to-date information on activities of constituent bodies are made available to the Panel on a regular basis, through formal reports of their meetings.	This is being done through the official WMO channels.
3	Ensure that there is regular update by Secretariat on policy and programme activities prior to each meeting	Outcome of EC –72 to be reported during the meeting. Other necessary updates are given through the Expert Teams, whose facilitators are in close contact with the Secretariat
4	Take into account decisions and actions of constituent bodies as they relate to capacity development.	This is being done through the work of the Expert Teams
5	The issues identified could form part of recommendations to EC. However, Expert Teams and the Task Team may need to take a further look at the issues identified as part of their assignments before forwarding any recommendation.	Report on the outcome of the first meeting was presented to EC-72.
6	The issues identified could form part of the core of the terms of assignments of the Expert Teams and the Task Team.	The terms of Reference of the Expert and Task Teams have been modified to accommodate the relevant issues identified
7	Avail some of the recommendations to the Secretariat for consideration in their programme development and implementation.	Report of the meeting circulated to Secretariat departments for use as appropriate

No	Recommendations by CDP-1	Follow-up Actions
8	Confirm terms of reference and memberships of the Expert Teams and the Task Team.	This was done, while the Teams are to further elaborate as they get into business
9	Expert Teams and the Task Team to review the suggested list of invited experts and make recommendations to the Chair for any possible changes. Any nominated invited expert should be cleared with the Permanent Representative of the nominating country. Invited experts will be considered taking into account regional and gender balance.	This is recurrent activity
10	Expert Teams and the Task Team to set timetables for their work, with the target of getting outputs in good time for deliberations ahead of next meeting of the Panel.	Teams to report on this to the Second Session of the Panel
11	Expert Teams and the Task Team to interact continuously with the WMO Secretariat during their assignments.	This has commenced and going on well.
12	The report to EC-72 should contain the recommendation for the expansion of the core membership of the Panel as highlighted in the report on agenda item 4.	Done, and EC-72 approved the recommendations
13	Revised Capacity Development Strategy to be delivered by year 2022 in time for consideration by EC for recommendation to Cg19. Task Team to begin work immediately and submit a timetable for its work along with an outline by the next meeting of the Panel. As a matter of priority, the Panel to aim at recommendations to EC-73 on how it plans to deliver its work with an extended outline of the content.	Facilitators of the Task Team to report on this
14	Expert Teams to commence work immediately and agree on a timetable for their activities by October 2020. Some of the work of the Expert Teams could serve as contributions to the new Capacity Development Strategy.	Expert Teams commenced work and they are due to report on this during the Second meeting of the Panel
15	Expert Teams to propose relevant recommendations on capacity development in WMO for consideration by the Panel, as proposal for inclusion in the EC73 document, which will be prepared by the Secretariat.	Expert Teams to report on this to the Second meeting of the Panel

## Annex-IV: Review of relevant decision of EC-72 and discussion of follow-up actions

No	Extracts from Relevant Decisions of EC- 72	Follow-up Actions
Resolution 4	STRENGTHENING MARINE SERVICES	
(EC-72)	Decides: (2) To work closely with NMHSs, WMO Regional Training Centres, appropriate nautical training institutes, and other relevant bodies, in collaboration with SC-MMO and the WMO Capacity Development Panel, to assist with the requested training and capacity development for metocean professionals (including forecasters) to better deliver marine weather forecasts, products and services, and for stakeholders to better understand and use the information from such forecasts, products and services;	The SC-MMO has been established, and a new Expert Team on Capacity Development and Competencies (ET-CCD) will focus on the work to support the implementation of competencies and the marine services online course. Finally, the WMO RTCs in RAIII and regional academic institutions, along with IOC RTCs are in discussion on how to strengthen collaboration in marine education and training.
	Requests:  (2) Regional associations, the technical commissions, the Research Board, the Capacity Development Panel and the Joint WMO-IOC Collaborative Board:  (a) To contribute advice or expertise, when requested, on matters discussed at the Symposium, when relevant to their mandates, including providing comments and recommendations on any requested information;	In 2020, the Chair of the WMO CD Panel participated in the WMO-IOC JCB, and as well, the IOC Group of Experts for Capacity Development. Furthermore, the JCB has appointed one of their Members (PR, Morrocco) to be a formal link to the WMO CD Panel.
	(b) To ensure effective coordination of information to meet needs at the regional level and appropriate technical responses by the Organization;	Expert and task teams to take these into account
	(c) To contribute to the technical expertise and advice (guided by SC-MMO), and regional assistance required to facilitate and support closing the gap in stakeholder awareness and training, which includes the provision of technical experts to assist the WMO course 'Enhancing Marine Weather Forecasting Services', thereby enhancing marine weather competencies for Members;	The SC-MMO has been established, and a new Expert Team on Capacity Development and Competencies (ET-CCD) will focus on the work to support the implementation of competencies and the marine services online course. The Nautical Institute is also a partner that has offered to further support the work of WMO Marine Services CD.

#### **Decision 11** SCALING UP EFFECTIVE PARTNERSHIPS AND SCOPE, SCALE AND PROGRESS OF WMO DEVELOPMENT (EC-72) The Executive Council decides: (4) To request the Capacity Development Panel: (a) To identify opportunities and complementarity between all WMO initiatives to strengthen capacity of developing Members when reviewing the WMO Capacity Development Strategy; (b) To develop appropriate guidelines supporting the WMO is developing a booklet to provide an overview of some implementation of the WMO initiatives to dedicated funding sources for climate financing. This booklet will strengthen the capacity of developing country also provide some basic Members; information on how to access these funds. (c) To support the independent evaluation of the Discussions have started at PMB-29 which took place December WMO Secretariat implemented projects; 2020. It is envisaged that IOO would perform the evaluation, noting that they are an independent entity and familiar with WMO processes. (5) To request the Secretary-General: Discussions have started at PMB-29 which took place December 2020. It is envisaged that IOO (f) To support the Capacity Development Panel in its would perform the evaluation, in particular assessing the current work by commissioning an independent external approach to the projects evaluation to assess the current approach to the implemented by the WMO Secretariat. projects implemented by the WMO Secretariat, and based on this evaluation prepare a strategy for approval by the Extraordinary session of the World Meteorological Congress in 2021 on future scope and scale of WMO projects.

Decision 12 (EC-72)	RECOMMENDATIONS FOR REVISION OF THE WMO CAPACITY DEVELOPMENT  STRATEGY  The Executive Council decides:  (1) To request the EC Capacity Development Panel to:  (a) Review the WMO Capacity Development  Strategy, 2015 (WMO-No. 1133), in coordination  with the technical commissions, the Research Board,  the Joint WMO-IOC Collaborative Board, Regional  Associations and other relevant bodies, taking into  consideration the WMO reform, regional priorities  emerging needs and trends in delivery or support;	The JCB Member (PR Morocco) for the WMO CD Panel will contribute to this exercise.
	(b) Take into account the WMO Community  Platform for coordination of information and cooperation to better understand the capacity development needs of NMHS in all areas of service delivery;	A Data Collection campaign will start in March-April in order to update the information contained from Members and be able to better analyse the needs of NMHS. Migration of the different Service Delivery Surveys issued recently is being analysed and will be incorporated to the Member Profiles during 2021.
	(c) Ensure that the strategy takes into account ways in which the WMO Regional Training Centres, WMO training partners and WMO specialized Centres can increase their support to capacity development initiatives and means in view of COVID-19 effects;	Task team to take tis into account
	(d) Co-opt other experts from WMO and development partners in support of its activities;  (e) Work towards a conclusion of this exercise and	The WMO-IMO-IOC-IHO-IALA Capacity Development Group meets annually, and is a pool of expertise from which to collaborate on joint marine activities.
	prepare a report for consideration by the EC-74;	To be noted by the Task Team

	(f) Taking into account the concepts of Hydromet	
	Alliance, CSI, SOFF initiatives for their	
	implementation.	
	(g) Encourage training institutions to embrace online	This is being done
	training where possible	
	(2) To invite Members to:	
	(a) Continue to support all capacity development	
	initiatives of WMO;	
	(b) Enable their relevant experts and institutions, to	Participation of expert nominated
	contribute to WMO activities on capacity	to support different WMO activities
	development;	
	(c) Avail of resources, financial and in-kind, in support of capacity devlopment activities;	Through experts' participation and possibly deployment of institutional resources to support
	(3) To request the Secretary-General to assist the Panel in	the process
	coordinating its work, particularly with UN agencies and development partners.	Being done through Secretariat support
Decision 13	DEVELOPING AND SUSTAINING CORE COMPETENCIES AND	In the 2024 week are grown a
(EC-72)	EXPERTISE	In the 2021 work programme
	The Executive Council decides:	
	(1) To request the EC Capacity Development Panel to:	
	(a) Evaluate and recommend processes for the	
	assessment of impacts of education and training	
	initiatives offered by WMO Regional Training Centres,	
	the Secretariat and WMO Education and Training	
	Partners, for selected representative initiatives, to	
	ensure the continuous improvement of education and	
	training initiatives by assessing their value to	
	Members;	

Regional Training Centres and other WMO Education and Training Partners to ensure and document that their curricula follow WMO standards, as outlined in Technical Regulations, Volume I – General Meteorological Standards and Recommended Practices (WMO-No. 49), regarding implementation of WMO Basic Instructional Packages (BIPs) and competency frameworks, as further detailed in the Guide to the Implementation of Education and Training Standards in Meteorology and Hydrology, volume I – Meteorology (WMO-No. 1083), and the Compendium of WMO Competency Frameworks (WMO-No. 1209);  (c) Review outcomes of the WMO Global Campus initiative and recommend additional outcomes and methods for further achievement of its objectives;  (d) Finalize the process of reviewing the Basic Instructional Package for Meteorologists (BIP-M) and Basic Instructional Package for Meteoro	#N	
and Training Partners to ensure and document that their curricula follow WMO standards, as outlined in Technical Regulations, Volume I – General Meteorological Standards and Recommended Practices (WMO-No. 49), regarding implementation of WMO Basic Instructional Packages (BIPs) and competency frameworks, as further detailed in the Guide to the Implementation of Education and Training Standards in Meteorology and Hydrology, volume I – Meteorology (WMO-No. 1083), and the Compendium of WMO Competency Frameworks (WMO-No. 1209);  (c) Review outcomes of the WMO Global Campus initiative and recommend additional outcomes and methods for further achievement of its objectives;  (d) Finalize the process of reviewing the Basic Instructional Package for Meteorologists (BIP-M) and Basic Instructional Package for Meteorologistal Technicians (BIP-MT) by evaluating the revision proposals put forward by the Expert Teams and the input on these proposals derived from Members' comments, and that it be submitted to Cg-19 for approval  (e) Review the WMO competency frameworks and identify relevant gaps, taking into account the WMO Reform, including competencies in environmental	(b) Review and recommend mechanisms for WMO	In 2021 work programme
their curricula follow WMO standards, as outlined in Technical Regulations, Volume I – General Meteorological Standards and Recommended Practices (WMO-No. 49), regarding implementation of WMO Basic Instructional Packages (BIPs) and competency frameworks, as further detailed in the Guide to the Implementation of Education and Training Standards in Meteorology and Hydrology, volume I – Meteorology (WMO-No. 1083), and the Compendium of WMO Competency Frameworks (WMO-No. 1209);  (c) Review outcomes of the WMO Global Campus initiative and recommend additional outcomes and methods for further achievement of its objectives;  (d) Finalize the process of reviewing the Basic Instructional Package for Meteorologists (BIP-M) and Basic Instructional Package for Meteorological Technicians (BIP-MT) by evaluating the revision proposals put forward by the Expert Teams and the input on these proposals derived from Members' comments, and that it be submitted to Cg-19 for approval  (e) Review the WMO competency frameworks and identify relevant gaps, taking into account the WMO Reform, including competencies in environmental		
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(c) Review outcomes of the WMO Global Campus initiative and recommend additional outcomes and methods for further achievement of its objectives;  (d) Finalize the process of reviewing the Basic Instructional Package for Meteorologists (BIP-M) and Basic Instructional Package for Meteorological Technicians (BIP-MT) by evaluating the revision proposals put forward by the Expert Teams and the input on these proposals derived from Members' comments, and that it be submitted to Cg-19 for approval  (e) Review the WMO competency frameworks and identify relevant gaps, taking into account the WMO Reform, including competencies in environmental	volume I – Meteorology (WMO-No. 1083), and the	
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Instructional Package for Meteorologists (BIP-M) and Basic Instructional Package for Meteorological Technicians (BIP-MT) by evaluating the revision proposals put forward by the Expert Teams and the input on these proposals derived from Members' comments, and that it be submitted to Cg-19 for approval  (e) Review the WMO competency frameworks and identify relevant gaps, taking into account the WMO Reform, including competencies in environmental	methods for further achievement of its objectives;	
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Technicians (BIP-MT) by evaluating the revision proposals put forward by the Expert Teams and the input on these proposals derived from Members' comments, and that it be submitted to Cg-19 for approval  (e) Review the WMO competency frameworks and identify relevant gaps, taking into account the WMO Reform, including competencies in environmental	Instructional Package for Meteorologists (BIP-M) and	
proposals put forward by the Expert Teams and the input on these proposals derived from Members' comments, and that it be submitted to Cg-19 for approval  (e) Review the WMO competency frameworks and identify relevant gaps, taking into account the WMO Reform, including competencies in environmental	Basic Instructional Package for Meteorological	
input on these proposals derived from Members' comments, and that it be submitted to Cg-19 for approval  (e) Review the WMO competency frameworks and identify relevant gaps, taking into account the WMO Reform, including competencies in environmental	Technicians (BIP-MT) by evaluating the revision	
comments, and that it be submitted to Cg-19 for approval  (e) Review the WMO competency frameworks and identify relevant gaps, taking into account the WMO Reform, including competencies in environmental	proposals put forward by the Expert Teams and the	
(e) Review the WMO competency frameworks and identify relevant gaps, taking into account the WMO Reform, including competencies in environmental	input on these proposals derived from Members'	
(e) Review the WMO competency frameworks and identify relevant gaps, taking into account the WMO Reform, including competencies in environmental	comments, and that it be submitted to Cg-19 for	
identify relevant gaps, taking into account the WMO  Reform, including competencies in environmental	approval	
identify relevant gaps, taking into account the WMO  Reform, including competencies in environmental	(e) Review the WMO competency frameworks and	In 2021 work programme
Reform, including competencies in environmental		, -
HIGHICOTHS	monitoring	

Resolution 10	WMO REGIONAL TRAINING CENTRES (RECONFIRMATION)	This has tall as afficient Contificulty
(EC-72)	THE EXECUTIVE COUNCIL,	This has taken effect. Certificates are being issued to some of the
	<b>Taking note</b> that the WMO RTCs in Costa Rica, India, and Russian Federation are currently being reviewed,	institutions
	Considering that the WMO RTCs in Egypt, Madagascar, Philippines, Qatar, South Africa and Uzbekistan have been reviewed and reconfirmation of their status was recommended by the EC Panel of Experts on Education and Training,	
	<b>Decides</b> to reconfirm the status of the WMO RTCs in Egypt, Madagascar, Philippines, Qatar, South Africa and Uzbekistan.	
Decision 15	REVIEW OF THE MEMBERSHIP OF BODIES ESTABLISHED BY	
(EC-72)	CONGRESS AND THE EXECUTIVE COUNCIL	The JCB have appointed one their Members (PR Morocco) to represent them on the WMO CD
	Capacity Development Panel	Panel.
	(Resolution 7 (EC-71) — Capacity Development Panel)	
	On the recommendation of the Panel (EC-72/INF. 2.5(8)):	
	Mr. J. Ogren (USA) appointed as Vice-chair of the Panel.	
	Include in the membership of the Panel: (a) one representative of the Hydrological Coordination Panel, (b) one representative of INFCOM, (c) one representative of SERCOM, and (d) representative of the Research Board, and (e) one representative of JCB.	
Resolution 12	Annex 3 to Resolution 12 (EC-72) RULES OF PROCEDURE FOR	Dana
(EC-72)	THE PANELS REPORTING TO THE EXECUTIVE COUNCIL	Done
	Capacity Development Panel	
	2bis. Membership	
	(overall numbering to be updated)	
	<b>2bis.1</b> In addition to the Chair, the Panel will consist of a maximum of twelve core members, each of whom will sit in a personal capacity and will serve for a period of four years.	

<b>2bis.2</b> The remaining ten core members will be appointed by	
the Executive Council, based on the nominations of	Done
Permanent Representatives, on the basis of their professional	
expertise in institutional infrastructure, procedural and	
human resources capacity development in the fields of	
meteorology, climatology, hydrology, institutional, legal and	
education and training matters, taking into account the need	
for the Panel to be balanced across the different components	
of capacity development to have an appropriate technical,	
geographical and gender balance in considering the most	
highly qualified candidates.	
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