

Process for preparing and implementing Capacity Development Plans

The first requirement for well functional National Meteorological and Hydrological Services (NMHS), is to have sufficient number of staff with the capacity to understand and operate their current and future hydrometeorological systems. However, globalization and continuous innovation of technology result in a constantly evolving business environment, and difficulty in retaining the skilled, trained and talent staff. Phenomena such as social media and mobile adaptability have revolutionized the business of weather-, climate- and water-related services, and the effect of this is an ever-increasing need for development, and creation of incentives to retain the staff. The growth in technology also has the secondary effect of increasing the availability, and therefore the accountability, of knowledge. Easily accessible information has resulted in unprecedented scrutiny from stakeholders and the media, and thus increased pressure for the delivery of high-quality services by NMHSs, which requires high qualified staff.

With the business environment experiencing so much development, the NMHSs must also learn to become comfortable with capacity development. Therefore, the ability to develop, manage and adapt is an essential requirement in the workplace today. Capacity development supports this organizational change. It can entail change of knowledge, skills, work processes, career paths, tools, systems, authority patterns, and management style.

Methodology and Process

The starting point of capacity development implementation in NMHSs is obviously their staff. In order for the development agencies to support the delivery of the appropriate training and advisory services (including coaching and mentoring) specifically related to NMHS strategic objectives, a 6 step-approach is necessary¹:

1. Analyze functions and core competencies to be in place at the NMHSs in order for them to be able to deliver according to their mission. These need to be aligned with the WMO Competency Framework² and their hydrometeorological systems.
2. Assess the NMHSs' staff capacity against the core competencies: the *Baseline Assessment*. A list of questions based on the competency framework is used to assess the NMHS staff capacities (see list of questions at WB/GFDRR, 2020¹). This assessment is carried out through a series of interviews of all staff, self-assessments by staff in the headquarters, main, regional, and provincial offices, followed by written assessments by their respective supervisors, and analyses of job descriptions and any other available human resource documentation. Once all staff are assessed (ranging from 1 for very poor to 10 for excellent level), their respective supervisors will validate the self-assessment results, and adjust as per their assessment of the level of the staff as well as the level the staff should or need to be at the end of the project

¹ 'Road Mapping and Capacity Development Planning for NMHSs – A Guidebook' (WB/GFDRR, 2020) - <http://documents1.worldbank.org/curated/en/570671605083362138/pdf/Road-Mapping-and-Capacity-Development-Planning-for-National-Meteorological-and-Hydrological-Services-A-Guidebook.pdf>

² WMO Guide to Competency (WMO 2018), https://library.wmo.int/doc_num.php?explnum_id=4237

(or a defined date), according to the mission and vision of the NMHS. These assessments are done for all levels of employees up to the Director General. Results of these assessments are calculated as the average for each core competency. These results establish the baseline or the capacity at the time of the interviews, and define the level of training (which is basic up to level 3, intermediate for levels 4–7, and advanced for levels 8–10) required to achieve the identified capacity levels at the end of the project (or a defined date).

3. Review and document the NMHSs' procedures and processes – a Quality Management System (QMS). This step contributes to identification of areas that require capacity building among NMHSs' staff. Job descriptions would be reviewed/revised or developed, in case they do not exist. At this stage, a career path would be defined and established, including the related grades and salary scales, for meteorologists, meteorological technicians, hydrologists, and hydrological technicians, following the WMO guidelines. This also includes the process for progression in the career, as well as salary scales upgrade/update, based on the business cases that would be prepared and presented to the respective Ministries of Finance in each country.
4. Identified gaps and areas for improvement. The results of the baseline assessment against the required competencies for each type of personnel as well as the introduction of a QMS reveal existing gaps that need to be addressed in the capacity development process, including incentives for promotion of staff.
5. Prepare a Capacity Development Plan to close the gap. This plan is to fill in the knowledge and competency gaps, and enhance NMHSs' staff skills in line with their organizational needs and the relevant WMO Technical Regulations. At the same time, it creates opportunities for staff progression in the career.
6. Implement the Capacity Development Plan to enhance NMHSs' skills to the next level, ensure continuity of services, and contribute to retaining trained, skilled and talent staff. The proposed approaches for capacity development are:
 - a. a “learning by doing” process, that includes the following components:
 - ✓ “Training” – academic type of courses using well-established hydromet material of internationally-accepted standards and a well-structured syllabus, to develop scientific, technical, and soft skills³. This type of training should be based on the actual needs of NMHS personnel and follow a systematic approach as opposed to ad-hoc training on different subjects. Sufficient time should be dedicated to the training to ensure all relevant staff reach the required level of knowledge and expertise. In order to be effective and beneficial to all relevant staff, these types of training must primarily be conducted in country.
 - ✓ “Experience” – practical sessions of exercises and practice on the job, with hydromet colleagues, under supervision of trainers or other well-trained and experienced staff. For sustainability of training investments, NMHS should seek to retain staff in the positions for which they have been trained, and in case of staff rotation within the Service, ensure that a proper hand-over protocols are in place.

³ Soft skills refer to those such as service delivery, user focus, communication, consultation, relationships building with users and stakeholders, media skills, presentation skills, management, etc.

- ✓ “Exposure” – field and benchmark visits to other NMHSs to allow the staff to witness the operations of other organizations, especially those within the region that are going through a modernization process. This will help staff understand how such a process has impacted positively other NMHSs. In addition to visits, attachments of longer duration to these and other more advanced NMHSs and/or regional institutions (such as RIMES) give opportunities for staff to gain a deeper understanding and improve their skill level by following the daily operational routine at those organizations and sharing lessons learnt with their colleagues upon return to their country. These twinning arrangements aimed at providing practical guidance and answers to questions, are another way of building the confidence of staff and improving their practical skills and knowledge.
- b. Training of Trainers to ensure continuity. The Training of Trainers model is intended to engage master trainers in coaching new trainers that are less experienced with a particular topic or skill, or with training overall. It can build a pool of competent instructors (especially within a region) who can then teach the material to other people.

End.