SERCOM: Capacity Development issues and recommendations.

The following provides an overview of some highlighted issues and recommendations obtained from the Standing Committees (and their predecessors as Commissions) within SERCOM.

Prof Roger C Stone, Vice President, Commission for Weather, Climate, Water, and Related Environmental Services and Applications.



Acknowledgements: WMO Secretariat, SC Chairs, Mr Lisk, Dr Elena Mateescu.

## WMO OMM

World Meteorological Organization Organisation météorologique mondiale

## SERCOM

Standing Committee on Services for Disaster Risk Reduction and Public Services (SC-DRR)

Standing Committee on Hydrological Services (SC-HYD)

Standing Committee on Marine, Meteorological and Oceanographic Services (SC- MMO)

Standing Committee on Services for Aviation (SC-AVI)

Standing Committee on Climate Services (SC-CLI)

Standing Committee on Services for Agriculture (SC-AGR).







## Summary of key points/Recommendations from SERCOM:

- "Capacity development is not a one-off intervention, but an on-going improvement process with feedback mechanisms, encompassing activities, approaches, strategies and methodologies" (SC-CLI).
- Strategic vision for capacity development in NMHS's *needs strong visionary leaders* who can see the big picture and think strategically to bring about innovative changes to develop institutional and infrastructural capacity and to sustain it.
- Placement of the NMHSs within an appropriate government institutional structure is an important consideration – in order to achieve high visibility of services to enable government policies that will lead to sustained capacity development.
- Note the importance of institutional good governance in management capacity development activities and programmes..



- Suggest promoting NMHS capacity development through "twinning" or "pooling" services, training and support, through regional cooperative entities (eg WMO Regional Centres/WMO Global Data-processing and Forecasting Systems (GDPFS) centres, Regional Climate Centre networks and Regional Agrometeorology Centres), or by partnering with other NMHSs or specialist institutions to share capabilities, skills, data and/or resources.
- Be adaptive and flexible: the process of building human capacity for areas such as "climate services" in the applications domain needs to be adaptive and flexible. This implies a *review of the education qualifications, skills and job training required for groups such as climate specialists,* as well as for groups and specialists covering weather, climate, hydrological and marine services including those in management positions.
- Human capacity for climate information providers requires input from *multidisciplinary personnel* including meteorologists, climatologists, engineers, geographers, statisticians, mathematicians, economists, sociologists, etc.





- There is a need to hire new graduates from universities *allow current staff to attend postgraduate studies* (MSc. or Ph.D.) in areas such as climate science.
- Meteorologists and climatologists need to be well trained in both operational weather <u>and climate forecasting</u>, from short-range through to sub-seasonal, seasonal and inter-annual timescales. A pool of well-trained meteorologists must be supplemented by another *interdisciplinary* pool of professionals who understand climate and can work with specific climate-sensitive sectors (eg ag, health).
- Capacity-building and education and training activities supported by WMO should, in principle, be demand-driven. The requirements will be determined on the basis of the inputs from the Members, regional association working groups, and surveys undertaken by the WMO Secretariat.





- "Particular emphasis to be placed on *developing partnerships* with academic institutions and professional and scientific associations, including exchanges of academic staff" (SC-HYD).
- Some SCs have a strong focus on capacity building for *user agencies* (eg within SC-AGR emphasis on training external agricultural extension officers) (as distinct from the training of agrometeorologists within NMHS's).
- the need to promote agricultural meteorological training opportunities/activities from *externally funded projects* (eg: 17 out of the 53 identified ag-met training programmes in RAIII are from externally funded projects).





- Enhance access to new outputs in supplementary guidance, case studies, tools or such-like which will help Members/met service providers when a staff member is found to be 'not yet competent' after a competency assessment has taken place (SC-AVI). (Within the SC-AVI's Expert Team on Education, Training and Competency)..
- Regional co-operation: Promote and support NMHSs *of the same region* in specific topics, especially in such aspects as financing missions of experts from one country to train on-the-job colleagues from a different country.
- "Emphasis needs to be put on activities of *short duration, low cost, and great potential impact with regard to number of beneficiaries,* without compromising quality. Some attention to be given to train-the-trainer and roving seminar programs including certification awards associated with lectures" (SC-HYD).
- Enhance the *use of distance-learning and blended-learning techniques,* using latest available information technologies should be explored. In doing so, inclusion of Regional Training Centres and academic institutions should be made to provide increased outreach.



- Gender equality must be considered (at all stages of climate service development and delivery) including promotion of gender equality for those producing, communicating. Engagement and training activities should not exclude or favour men or women.
- It is recommended that closer collaborations are encouraged between *external funding agencies* and NMHSs in the regions towards achieving the desired increase in capacity development (SC-AGR).
- Develop a Community of Instructors in order to jointly design the curricula, share teaching material and experiences, and discuss common problems. The Community of Instructors will also constitute a pool of trainers.
- Enhance collaboration between Capacity Development ETs in the different Standing Committees. At present (suggest, due to previous separate Commissions) there appears to be little cross-communication between such ETs.





Final Summary:

- A strategic focus on the need for appropriate government placements and settings for NMHSs, need for government leadership in capacity development.
- Need for emphasis on twinning, partnership, pooling, sharing, communities of instructors, and *regional co-operations* - in order to achieve effective outcomes in capacity development and institutional cooperation.
- Focus on need to enhance the inclusion of multi-disciplinary personnel, *enhance staff progression*, qualifications, use of supplementary guidance, and use of case studies.
- Focus on *enhancing gender equality* and developing those in management positions.
- The value of user training, user agency training, " train-the trainer", distance learning, blended learning, needs to be explored.

Need to enhance collaboration between the Capacity Development ETs in the different Standing Committees (of SERCOM). WEATHER CLIMATE WATER TEMPS CLIMAT EAU





## WMO OMM

World Meteorological Organization Organisation météorologique mondiale