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METEOROLOGICAL  
ORGANIZATION

# SERCOM Update Report on Capacity Development

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WMO OMM

# SERCOM input summary

- **Need to enhance collaboration between Capacity Development ETs in the different Standing Committees.**
- At present (likely due to previous separate Commissions) there appears to be little cross-communication between such ETs on this need.
- Capacity development is *not a one-off intervention*, but an on-going improvement process.



# SERCOM (summary)

- *NMHS: Strategic vision for capacity development in NMHS's needs strong visionary leaders.*
- *Placement of the NMHSs within an appropriate government institutional structure important.*
- *Promote NMHS capacity development through “twinning” or “pooling” services.*
- Promote and *support NMHSs* in financing missions of experts from one country to train on-the-job colleagues from a different country.



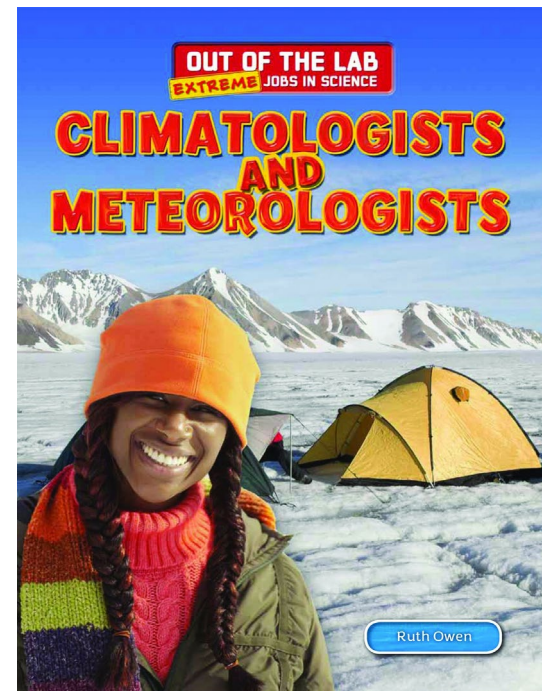
# SERCOM input

- Climate Services: *the process of building human capacity for climate services needs to be adaptive and flexible* - implies a review of needed education qualifications, skills and job training.
- Human capacity for climate information providers requires input from multi-disciplinary personnel (meteorologists, climatologists, engineers, geographers, statisticians etc).



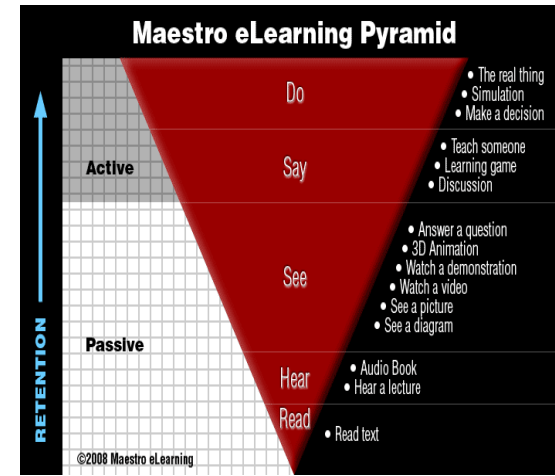
# SERCOM input

- Need to hire new graduates from universities – also allow current staff to attend postgraduate studies (MSc. or Ph.D.).
- Meteorologists/climatologists need to be well trained in both operational weather and climate forecasting.
- Gender equality must be considered at all stages of (climate) service development and delivery.



# SERCOM input

- *The use of distance-learning* and blended-learning techniques, using latest available information technologies should be explored.
- *Develop a Community of Instructors* in order to jointly design the curricula, share teaching material and experiences, and discuss common problems.



# SERCOM input

- Emphasise the *development of partnerships with academic institutions.*
- Need to *promote agricultural meteorological training opportunities, activities from externally funded projects.*



## **SC-MMO update (Sarah Grimes)**

**SC-MMO meeting in Geneva recently where there have been ‘deep discussions’ around marine competency and capacity development.**

**SC-MMO and ETCCD leadership would like to offer the following to your discussion with ETR:**

- **WMO Marine Services Course:**
  - Successful collaboration on the WMO Marine Services Courses, within the Secretariat and also with SERCOM members in terms of contributors. The feeling is that these Courses are shining examples of how training can be delivered to Members.
  - **Importance of the regional course model**, both in terms of engaging Regions and Members as well as from an equity and language perspective. The Course is an example of the successful implementation of this approach.



- Continued and additional support will be required to reach all regions for both Phases of the Marine Services Course. Need to consider another cycle of courses, with potential modifications, after a number of years.
- **The Marine Forecasting Competency Implementation** will require further education and training opportunities to complement the competency assessment initiative being rolled out
- **SCMMO would like collaboration with WMO ETR** to host learning resources for addressing competency development needs
- **Impacts-based forecasting as it relates to marine services--more guidance and training will be needed for this service innovation**
- MHEWS as it relates to marine services: more guidance and training, CIFI is a successful model



- GDPFS (WIPPS): improving awareness and skills in using new regional/global products that are becoming available to Members
- **SCMMO would like help to raise awareness of the process with NMHS, and to encourage NMHS to communicate results to the WMO; with a view to support training needs. (thanks to Sarah Grimes).**



**Capacity Development Plan (CDP)  
for the  
WMO Study Group on Integrated Energy Services (SG-ENE)**

**2023-27 (thanks to Roberta Boscolo)**

## SG-ENE

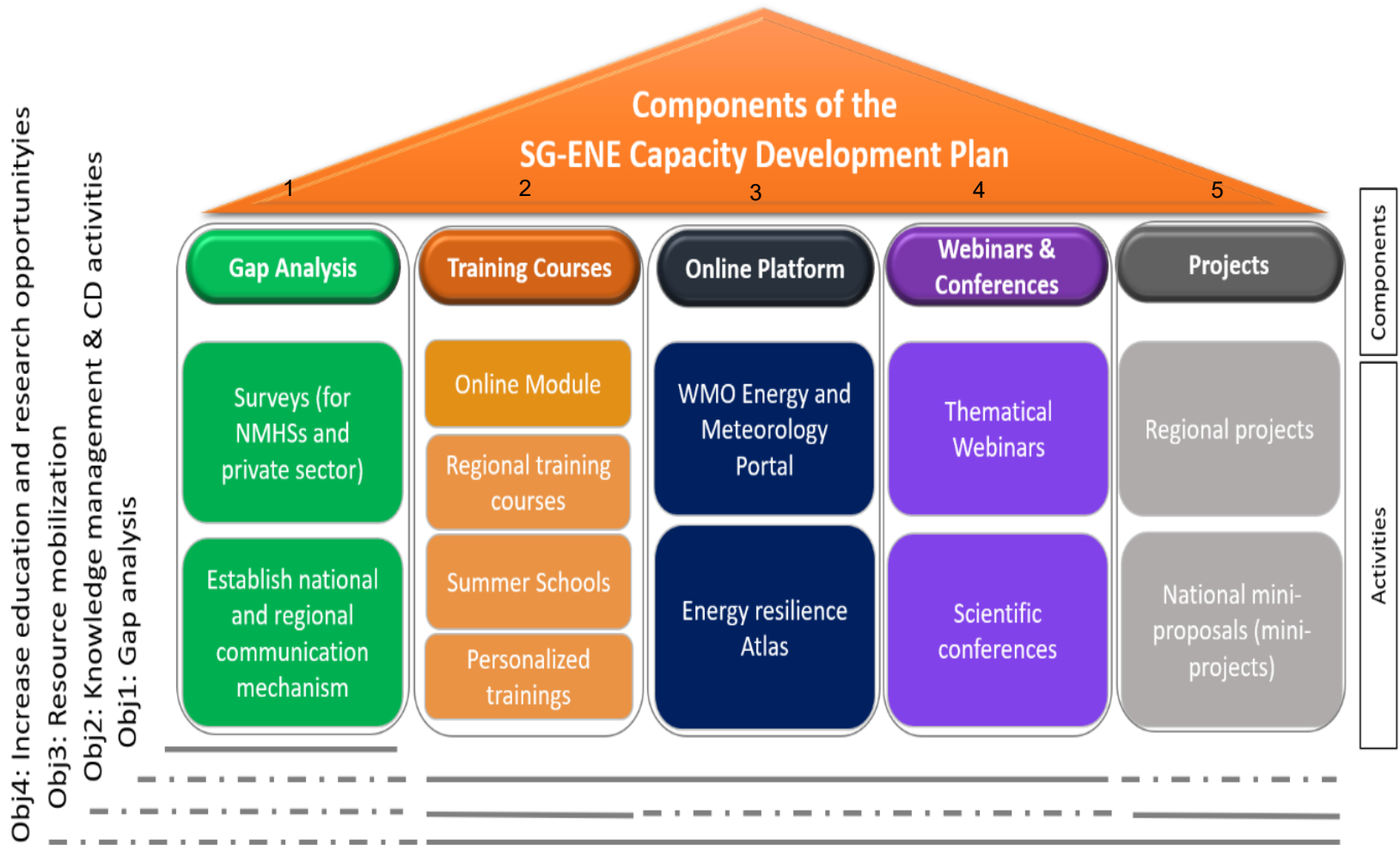
Under the Commission for Weather, Climate, Water, and Related Environmental Services and Application (SERCOM), the SG-ENE is supporting weather and climate services for the energy sector through different activities, including capacity development.

**The SG-ENE Capacity Development Plan (SG-ENE CDP) provides a 5-year implementation plan to address respective regional and national gaps and needs across the sector.**

**The SG-ENE CDP has, at its core, the WMO's definition of capacity development, namely “the process of strengthening the abilities or capacities of individuals, organizations and societies to solve problems and meet their objectives on a sustainable basis” ([WMO-No.1133, 2015](#)).**

- The first component is **Gap analysis**, aiming to identify key points that require further actions.
- The second component includes different types of training courses, such as **Online course**, **Regional Course**, **Summer School**, and **Expert Training**.
- The third component presents an **Online Platform**, which facilitates access to actionable knowledge on W&CS in the energy sector and promotes networking between energy actors and W&CS providers.
- **The platform also hosts different materials and activities of other components, such as survey results, training courses, webinar, etc.** An important feature of the portal is the *Global Energy Resilience Atlas*, a newly developed open-access tool, which will allow users from any part of the world to freely explore and download energy-resilience information for different renewable resources.

- The fourth component includes Energy and Meteorology **Conferences** and joint **Webinars** with external partners in response to the energy sector's needs for weather and climate services.
- Finally, the fifth component is **Projects**, under which a wide range of technical advisory will be provided to support energy activities in ongoing regional projects and new project proposals will be developed.
- **This component will also address the specific needs of NMHS through small-scale national mini-proposals.** Figure 1 shows the components with respective activities of the SG-ENE CDP by associating related objectives (Obj) to each component through solid lines.



*Figure 1: Structure and components of the current WMO SG-ENE Capacity Development Plan*

## SC-AGR update

- **Agrometeorological training modules for farmers and extension agents** being used in training events and WMO RTCs courses.
- All done in conjunction with the Global Centres of Research and Excellence in AgroMeteorology (GCREAMs) and other institutions that offer education and training in agricultural meteorology (i.e. universities) –
- This all planned for 2023...key issue is funding.

## SC-AVI

‘Nothing further to raise at this point in time’.

AVI Division and the ETR Office convene bilateral coordination meetings about once every 6-months to discuss any cap dev/education and training issues-of-the-day.



- \* **SC-HYD** activities linked with Capacity development.
- **Activity #2 developing Training material (PPT and videos) to assist in the Assessment guidelines for End-to-End Flood forecasting and Early Warning Systems** (both external, as well as self-assessment).
- **Activity #3 Training materials on the Interoperable flood forecasting models and platforms** included in the inventory.
- **Activity #9 developing training materials for the Dynamic Water resources Assessment Tool.**
- **The hydrological community under the lead of HCP prepared the WMO Plan of Action for Hydrology**, approved by Cg-Ext(2021). For each CD activity present in the plan, a leading responsibility was assigned, and was approved by EC 76. SC-HYD is implementing the activities according to its role defined in the plan. [WMO Plan of Action for Hydrology 2022-2030](#)
- **The ‘training of trainers’ activity on the guidelines on the “Assessment on National Needs and Capabilities in End-to-End Early Warning Systems for Floods”**, (Santa Fe, Argentina, September 2023), is a first cooperation activity between CDP and HCP as well as a pilot project of the implementation of WCDS.