



Uniting N.M.Socs of the world to make the whole much bigger than its parts!



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Building Capacity around the world by strengthening National Meteorological Societies & Regional Meteorological Societies and creating Collaborations



Education is simply the soul of a society as it passes from one generation to another.

“Education is the most powerful weapon which you can use to change the world”...Nelson Mandela

Education is a commitment to excellence in Teaching and Learning.

1 INTRODUCTION

This document describes IFMS/AfMS plan for building capacity in Africa through the recently created African Meteorological Society (**AfMS**) for which the value Proposition is available in its website. As a part of our capacity building efforts, we are currently working on two important aspects:

1. Education and Training (**E&T**) and
2. Science and Technology (**S&T**) Collaboration.

Under E&T we are working on two important Programs which are:

- Program 1: Teacher/Student Training Program
- Program 2: Review and potential Upgrade of available Educational Programs.

Under S&T Collaboration we provide means of requesting S&T Collaboration with high quality volunteers. This program also has cooperation with the AMS' Global Partners, the AMS International Academic Volunteer Program.

2 E&T EFFORT OF IFMS/AfMS

2.1 PROGRAM 1: TEACHER TRAINING COURSE

2.1.1 OBJECTIVE

Africa needs assistance in building capacity to protect itself against the adverse effects of Global Warming and Climate Change (**GW&CC**). Since training youngsters is the most effective way of building capacity, we are working on Teacher/Student Training Programs at all levels: Universities, Colleges and Schools. We found volunteers from 6 countries but are still looking for them for the 3 countries shown in red below.

Countries Involved in the Pilot Project: We are starting a Pilot Project in East Africa and Horn of Africa involving the following 9 countries: Kenya, Tanzania, Uganda; **Somalia, Djibouti, Eritrea**, Ethiopia, Sudan and South Sudan.

This Initiative is led by Dr. Sushil Dash: Chair of IFMS Committee on Education and Training.

2.1.2 PLANNED STEPS

1. Formation of E&T Committee for above Countries with at least one, preferably many more, members from each country to execute the following steps.

ACTION REQUIRED: We need Committee Members from each country involved in this pilot project. We will form a committee with these members and others who will eventually develop the training to fill any gaps.

2. *Couple of interactive meetings to finalise the most important climate theme common to these countries such as water availability, disaster handling, etc.*

ACTION REQUIRED: Organize Meetings as soon as persons for #1 have been identified.

3. *Identification of schools/colleges to be part of this programme e. g., establishing weather observatories for educational purposes, conducting of seminars etc.*

ACTION REQUIRED: Representative(s) from each country will do this task by also involving other local volunteers.

4. *Identification of teachers from each of these institutions suitable for undergoing training; mostly with science, mathematics and geography backgrounds.*

ACTION REQUIRED: Representative(s) from each country will do this task.

5. *Preparation of documents for teachers training.*

ACTION REQUIRED: We will Plan this as per collected information, have a meeting and with the Committee members and assign tasks.

6. *Monitoring of weather observations with the help of students.*

ACTION REQUIRED: A part of the job of local members of our committee will be to identify students which will be able to help us in this monitoring.

7. *Involvement of Students in executing small scientific projects using the collected data.*

ACTION REQUIRED: The experts in the Committee will decide the scientific projects to be executed. The required procedures and the students identified above will be asked to conduct those experiments.

8. *Periodic workshops to evaluate the progress and make course corrections.*

ACTION REQUIRED: Organize Meetings as soon as persons for #1 have been identified.

2.1.3 How the courses will be given?

The volunteer teachers will give these courses and also some of us will be involved. Dr. Dash states that he will be happy to join.

We will use Zoom or equivalent to give these courses.

2.1.4 How the courses will be evaluated?

After one year of implementation, we will prepare a questionnaire and conduct a survey to evaluate the result, etc.

2.2 Program 2: Review and potential Upgrade of available Educational Programs

The second Program, **led by Dr. Robert Varley (Retd. CEO of the UK Met Office)**, will support AfMS' E&T program. He has collected a team of meteorologists and trainers who together bring a wealth of experience of scientific research, operational meteorology, professional training and capacity development in Africa. The team comprises:

1. Frank Barrow, former trainer, Met Office College
2. Liz Carlton, former trainer, Met Office College
3. Brian Golding, Met Office Research Fellow
4. Phil Merrett, former trainer, Met Office College
5. Bob Riddaway, former Principal, Met Office College
6. Robert Varley, former Chief Instructor, Met Office College
7. John Ward, former trainer, Met Office College

The following schedule has been proposed:

- **June:** Web search to produce a list of all relevant and available training materials.
- **July-August:** Work through the list, to categorise, document and quality control materials, and produce a catalogue.
- **September:** Build the web portal.
- **October:** Review and approval by AfMS/IFMS.
- **November:** Launch at COP27 in Sharm El-Sheikh, Egypt.

IFMS will assist this group in filling any gaps which they will identify.

3 S&T EFFORT OF IFMS/AfMS

3.1 IFMS S&T COLLABORATION

Under this Program we are providing opportunities for collaboration between the National Meteorology/Hydrology Societies (NMSocs) on joint activities, where appropriate, to advance the science and profession of meteorology. In addition to collaboration between Societies, this collaboration can also be between professionals from different societies arranged through IFMS.

In terms of collaboration, IFMS has provided the Collaboration Tab on its website for interested National and Regional Societies and individuals to request collaboration through the Website link or by filling the form and sending it to:

ifms.collaboration@gmail.com

Depending upon the type of request, we will announce it on our Website and try to find the right collaborator (Volunteer).

We are also partnering with AMS on their Global Partners, the AMS International Academic Volunteer Program which is described in the next section. This program will

be one of the sources of locating right collaborator (Volunteer) for the International Scholars.

3.2 Global Partners, the AMS International Academic Volunteer Program

Global Partners - the AMS International Academic Volunteer - Program, enables AMS members to volunteer their expertise and experience to professionals in academic and nonprofit NGO organizations worldwide and to promote equity, goodwill, and service to the extended atmospheric science community for the benefit of society internationally.

It seeks to connect AMS members who are interested in providing specialized expertise and services to international professionals in academia and nonprofit, non-governmental organizations (NGOs). Services proffered to these international scholars/institutions ("International Scholars") may include but are not limited to assistance in course and curriculum development, research planning and collaboration, public engagement, mentoring and other not-for-profit activities. Such services will typically be provided on a *pro bono* basis except for travel, per diem, communication and other support costs, which could be provided by the International Scholars, their institutions and/or other non-AMS parties. The role of the AMS is limited to functioning as an exchange mechanism that facilitates the matching of those International Scholars seeking relevant services with those AMS member-volunteers desiring to provide them.

4 CONCLUSIONS

The opportunities provided by both E&T as well as S&T Programs of IFMS/AfMS are invaluable. They help both volunteers and beneficiaries of the program. Volunteers get the feeling of being a part of Capacity Building paradigm and the beneficiaries get full benefit of these Programs.

The success of these programs is dependent upon the participation of both Volunteers and Beneficiaries. We urge Professionals from all nations whether "local", "diaspora" or "friends of Africa" and other Least Developed and Developing countries, to participate and create capacity in Africa and rest of the world.

Finally, we also urge all National Meteorological Services, WMO and World Bank to support our efforts as strongly as possible because after all we are assisting them in their effort to create capacity around the world!

5 ACKNOWLEDGEMENT

We profusely thank Prof. Sushil Das, Dr. Robert Varley and Dr. Walter Dabberdt for their generosity in leading these programs. We also sincerely thank all the volunteers who have agreed to assist us in making these programs a great success.