Contribution of Dr. MVK Sivakumar for Capacity Building in Agrometeorology

By
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A friend of Dr MVK Sivakumar

I had a Privilege to work with MVK in various capacities including

HE	Me
Scientist ICRISAT	Meteorologist IMD
Chief WMO Agromet	Chief Agromet NCMRWF
Chief WMO Agromet	Vice President CAgM
Director WMO Climate Prediction and Adaptation Branch	PR of India with WMO & Member EC WMO
Consultant WMO UNDP consultancy The World Bank consultancy INSAM activities	Chair IBCS UNDP consultancy The World Bank consultancy INSAM activities

Preparing strategy on “Capacity Building in Agromet Services through Roving Seminars”

- At the 14th Session of the CAgM held in New Delhi in 2006, I was elected as Vice President CAgM and worked together with MVK & Prof. Stigter

- The Fifteenth Session of CAgM (CAgM-15) held in Brazil in 2010, acknowledged the work of MVK & Prof Kees Stigter for Policy Support in Capacity-Building

His specific contribution on capacity building for following areas through various activities;

- Agrometeorological applications and services in agriculture, forestry, rangelands and fisheries
- Application of seasonal to interannual climate predictions in agriculture for better risk management
- Microclimate management or manipulation
- Establishment of measures to reduce the impacts and mitigate the consequences of weather- and climate-related natural disasters for agricultural production
- Monitoring and early warning
- Development and validation of adaptation strategies to deal with increasing climate variability and climate change
- Application of crop models ranging from the field level to the country level

Identify needs of Farming Community

- He contributed to enhance the level of education and skills of farmers, especially in developing countries, by training intermediaries who are to assist the farming community

- He also contributed to augment education and training in agricultural meteorology at PG level to ensure a continuous stream of well-informed man power for agromet services

Defining Needs and Perspectives for Agricultural Meteorology in the 21st Century

- In February 1999, as the Chief of the Agricultural Meteorology in WMO, he organized the “International Workshop on Agrometeorology in the Twenty-first Century: Needs and Perspectives”, in co-sponsorship with a number of national, regional and international organizations, which was held in Accra, Ghana.
- Prof. Kees Stigter and others (2000) summarized the needs and perspectives for agricultural meteorology in the twenty-first century under two major headings:
- Agrometeorological services for agricultural production;
- Agrometeorological support systems for such services:
- Data
- Research
- Policies
- Education/training

Defining Need for Education and Training

- There was need to review the curricula in Agromet at UG and PG levels to ensure that the curricula meet the emerging issues, and prepare relevant education and training material to serve the revised curricula

- As the Chief of the Agricultural Meteorology Division in WMO, he organized the Expert Meeting on Review of Curriculum in Agricultural Meteorology in March 2007 in collaboration with the American society of Agronomy, the Accademia dei georgofili of Italy and the National Academy of Agricultural sciences of India, to develop a revised curriculum as well as recommendations for its effective implementation.

- Sixteen experts from Austria, Brazil, Canada, India, Indonesia, Italy, the Netherlands, the United states of America and Zimbabwe attended the meeting.

Curriculum Review

- In the Opening Session of this meeting, welcome addresses were given by the representatives of the four co-sponsors of the Meeting: myself from WMO; Dr J.L. Hatfield, President of the American society of Agronomy; Dr S. Orlandini from the Accademia dei georgofili of Italy; and Dr V.P. Gupta from the National Academy of Agricultural sciences of India.
- The first technical session reviewed the developments made in agricultural meteorology over the years with presentations on agricultural meteorology at the global level by myself and on agricultural meteorology over the years and new priorities and consequences for curricula by Prof Kees Stigter.
- In the next session on the Current Status of Agricultural Meteorology, seven presentations were made by experts from Zimbabwe, Brazil, USA, Canada, Indonesia, Austria, and Italy.
- Presentations were made on the Agricultural meteorology programmes for masters and doctoral degrees that are offered at the following five universities in India:
- Tamil Nadu Agricultural University (TNAU);
- Punjab Agricultural University (PAU);
- Anand Agricultural University (AAU);
- Acharya N.G. Ranga Agricultural University (ANgRAU);
- Indian Agricultural Research Institute (IARI).

Proposed Courses

The meeting proposed agricultural meteorology courses for UG & PG programs

The following courses are proposed for the UG level:

- Introductory agricultural meteorology
- Climate change and its impacts on society

The following courses are proposed for PG level;

- Fundamentals of meteorology and climatology
- Weather, climate and crops
- Weather, climate and livestock
- Meteorological hazards in agriculture
- Agrometeorological measurements and instrumentation
- Micrometeorology
- Analytical tools and methods for agricultural meteorology

Proposed Courses

Applied courses proposed for PG level

- Strategic use of climate information;
- Coping with climate variability and climate change;
- Coping with extreme meteorological events;
- Tactical decision-making based on weather information;
- Development of risk management strategies.

Training Intermediaries

- An agricultural meteorology related syllabus for the in-service training of AEIAs (A-Domain Agrometeorological Extension Intermediaries);
- An agricultural meteorology-related syllabus for the in-service training of AEIBs (B-Domain Agrometeorological Extension Intermediaries).
- The meeting discussed the detailed syllabuses and the core competencies for the different courses and finalized the syllabuses and core competencies.

Identifying Training needs for User Communities

- Agrometeorological Training for user communities covering spectrum from institutions and governments to farmers
- He advocated that the in-service training plays a significant role in updating the NMHS personnel with recent technologies and methods and in refreshing the knowledge and methods gained by agromet personnel
- Played catalytical role in developing methods, procedures and techniques for disseminating agrometeorological information to cooperative extension services and other users

Identified Training Modules such as;

- Data management tools
- Mapping tools
- Climate Drought Indices
- Remote Sensing
- Yield Forecasting
- Bulletin Design & Layout
- Internet/web technology

Organizing Roving Seminars

- The objective of Roving Seminars is to make farmers become more self-reliant in dealing with weather and climate issues that affect agricultural production on their farms.
- Typically, the Roving Seminars are of one-day duration and bring together farmers from a group of villages to a centralized location in any given region. The programme for the Seminars consists of two parts:
- Part I – Weather and Climate of the Farming Region, Climate Change and Farming Risks
- Part II – Farmer Perception of Weather and Climate Information Provision and Feedback

He supported Prof. Stigter to organiz Four-year pilot project from 2008 to 2011 in West Africa

- Involved 15 countries and organized over 140 seminars
- 5,700 farmers participated in these Roving Seminars including 1,000 rural women.
- 3,000 rain gauges were distributed to 2,800 villages in West Africa

Conclusion

- He made immense contribution in capacity building of farmers, scientists and service providers
- He improved communication with farmers and policymakers to enhance applications at the field level
- He forged strong links among agrometeorologists at national and international level
- Developed strong bridge between INSAM and CAgM developing a global fraternity

Thanks