



WMO scientist Dr Sivakumar received the 2007 International Service in Agronomy Award of ASA

This year's American Society of Agronomy (ASA) International Service in Agronomy Award was conferred upon the Indian Dr Mannava V. K. Sivakumar, Chief of the Agricultural Meteorology Division of the World Meteorological Organization's World Climate Programme (WMO/WCP).



Dr Sivakumar's life-time commitment to agroclimatology and agrometeorology helped advance improvements in our understanding of the climate-agriculture relationship and in using

climate and applications in the agricultural sector. "My main concerns are to promote sustainable agriculture and to alleviate poverty in the developing countries of Asia, Africa and Latin America" says Dr Sivakumar.

As Chief of the Agricultural Meteorology Programme (AgMP) since 1998, he mainly focussed on climate and weather impacts on agriculture world-wide and the beneficial use of forecasts to secure food availability. "There is a need for climate forecasts in light of risk management in rainfed farming, competition for limited water resources, impacts of natural disasters and the multi-dimensional impacts of extreme variability" describes Dr Sivakumar.

The past two decades have seen significant improvements in the forecasting of climate variability, based on advances in our understanding of ocean-atmosphere interactions. Such improvements facilitated the development of applications that predict climate at seasonal to inter-annual timescales, helping the farmers and policy makers dealing with national food security to deal more effectively

with the effects of climate variability. "The accuracy of these climate forecasts needs to be further improved, their usefulness to farmers quantified and their beneficial use further promoted" says Dr Sivakumar.

However, a great challenge is and has been the dissemination and communication of agrometeorological information through WMO Member States' National Meteorological and Hydrological Services. Often, the local farmers do not receive the weather and climate forecasts or do not understand it. "While considerable advances have been made in the collection, archiving and analysis of weather and climate data, their transformation into information that can be readily used by the farm sector has lagged behind, especially in the developing countries where such information needs are the greatest".

To address the above issues of forecast applications in the agricultural sector and the dissemination and communication relevant to local food producers, Dr Sivakumar and his team at the Agricultural Meteorology Division organized over 40 international workshops and expert group meetings including several innovative training seminars, that helped to build capacity in many developing countries. Many of these activities resulted in books and science articles, which were authored or edited by Dr Sivakumar, in total over 200 publications.

A new approach in looking at the relationship between agriculture and climate was recently developed during a Workshop held in Ottawa, Ontario, Canada, September 2004. The impact of agricultural practices and in particular, of land surface changes on the state of climate have become an increasing concern in the context of global warming. Through agriculture (land clearing, cultivation and the grazing of domesticated animals), humans have altered and now manage to varying degrees, the

vegetation (i.e., the physiological and physical properties of the land surface) and the soil moisture over large tracks of land, directly



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via irrigation or drainage and indirectly via cultural practices. "When land use is altered by agriculture, there is a need for a greater appreciation of how land-use change has modified or will modify the biophysical forcing of the atmosphere and in turn, weather and climate" explains Dr Sivakumar.

Dr Sivakumar also spearheaded the development of the Assessment of Natural Disaster Impacts in Agriculture (ANADIA), a global project by the World Climate Programme together with the Disaster Risk Reduction Programme, both WMO programmes, which quantifies the impacts of natural disasters on agriculture, forestry and fisheries. Collaborations with various international and national bodies are essential in Dr Sivakumar's daily work. He is the WMO focal point for such collaborative activities with the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD), and the Secretariats of the United Nations Convention to Combat Desertification (UNCCD) and the Convention on Biological Diversity (CBD). In addition, "I am well aware of the International Agricultural Research System, I worked for the Consultative Group on International Agricultural Research (CGIAR) for over 20 years!" says Dr Sivakumar.

"Winning this Award is a great honour and pleasure for me!" Dr Sivakumar will receive the Award consisting of a certificate and a US\$ 1,000 honorarium during the ASA Awards Programme in November 2007 in New Orleans, USA. In its 40 years of existence, this is the first time the Award is given to a scientist from a United Nations agency. The annual ASA Award recognizes outstanding contributions in research, teaching, extension, or administration made outside of the USA by a currently active agronomist. [c arndt]

References and links

AgMP http://www.wmo.int/pages/prog/wcp/agm/agmp_en.html

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