



Caribbean
Institute
for Meteorology
and Hydrology

Improving Agrometeorological Bulletins



Proceedings of the Inter-Regional Workshop

15-19 October 2001
Bridgetown, Barbados



AGM-5

World Meteorological Organization

WMO/TD No. 1108

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EDITOR

M.V.K. Sivakumar

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**AGM-5
WMO/TD No. 1108
World Meteorological Organization (WMO),
7bis, Avenue de la Paix
1211 Geneva 2,
Switzerland**

2002

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Citation: M.V.K. Sivakumar (Ed.). 2002. Improving Agrometeorological Bulletins, Proceedings of an Inter-Regional Workshop held in Bridgetown, Barbados, 15-19 October 2002. Geneva, Switzerland: World Meteorological Organization.

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FOREWORD

The global demand for cereals has been continuously increasing due to the growing population growth and world's farmers will have to produce 40 percent more grain in 2020 to meet the nutritional needs of the global population which estimated to reach 7.5 billion by that time. Much of this population growth will occur in the developing world where the farming community is comprised mainly of small farmers with limited means. These farmers lack the financial resources need for investing in inputs such as improved seeds and fertilizers and hence the yield levels in their farms have remained either stagnant or have been declining.

In much of the tropics, especially in the semi-arid tropics, farming systems are mainly rainfed and are affected by inter-annual as well as intraseasonal climate variability. Farmers had to adapt to the range and frequency of shocks that climate variability brings and they have tried to use the available knowledge and information to develop their coping strategies. Farmers urgently need weather and climate information for operational decisions and there is convincing evidence available from different parts of the world that judicious application of meteorological, climatological and hydrological knowledge and information, including long-range forecasts, greatly assists the agricultural community to develop and operate sustainable agricultural systems and increase production in an environmentally sustainable manner. Also the growing concerns with the need for achieving greater efficiency in the natural resource use while conserving the environment are placing a much greater emphasis on understanding and exploiting climatic resources for the benefit of agriculture and forestry.

The importance of the type of weather information needed for a decision making process depends upon the nature of the decision itself. For example, present weather and short-term forecasts are used in making daily operational decisions, while the analyses of past climate data are especially useful for planning decisions. Predictions of yield and the incidence of disease and pest potential are usually based on current and past weather conditions in a specific agricultural area and crop type. Medium and long range forecasts, coupled with past climatological data, are valuable for long-term planning decisions related to crop decisions. The need for reorienting and recasting meteorological information, fine tuning of climatic analysis and presentation in forms suitable for agricultural decision making and insulation of marginal farmers with small holdings from the adverse impacts of weather vagaries has become more pressing.

It is indeed gratifying that through the technological advances in the past decade in the domain of information dissemination and exchange

such as the developments in communications and electronic media, in particular the ever expanding cyberspace linkages through internet and World Wide Web, we are now have improved methodologies and tools to reach the faming community. The enhanced computing power that is available today is making data manipulation much easier than ever before. We need to take advantage of the new opportunities to obtain and provide information to the users in a cost-effective way.

The Twelfth Session of the Commission for Agricultural Meteorology (CAgM-XII) of WMO considered the need to improve agrometeorological services to improve agricultural production and to conserve the environment. It emphasized the importance of timely provision of agrometeorological information in a user-friendly format.

In order to discuss a number of the above issues, WMO, the National Oceanic and Atmospheric Administration (NOAA) and the Caribbean Institute of Meteorology and Hydrology (CIMH) organized an Inter-Regional Workshop on Improving Agrometeorological Bulletins in Bridgetown, Barbados, from 15 to 19 October 2001. The purpose of the workshop was to assess the current status of preparation of agrometeorological bulletins in the six Regions of WMO and determine the different ways and means to improve the contents of these bulletins to facilitate timely and efficient on-farm operational decision-making that relies on agrometeorological information. Twenty-five participants from twenty-one countries, including several from the Caribbean region, attended the Inter-Regional Workshop. All Regional Associations were represented.

I am pleased to note that the Inter-Regional Workshop addressed a number of important topics mentioned above relating to improving the agrometeorological bulletins including the challenges and the regional and technological perspectives. Brainstorming sessions during the workshop helped the participants in bringing out the major issues in improving agrometeorological bulletins and in prioritization them and also in developing a number of recommendations for future action. I hope that the papers presented in this volume will serve as a very valuable source of information for all users and providers of agrometeorological information.

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