

FOREWORD

A common essential requirement for the production of both food and energy is water. An absolute pre-requisite for the green revolution has been and will continue to be a reliable control system. Without an efficient water management system, it is not possible to continue horizontal expansion of agriculture and overall yields in any significant manner. In India almost 75% of water is used for agricultural purposes. Similarly, for large scale energy generation, water is an equally essential component, irrespective of whether such generation processes use hydro, thermal or nuclear power plants.

It is no longer acceptable for hydrologists to claim that they are only interested in studying water but not in its use. The hydrologist must ask himself - water for what? We study water not because we are fond of carrying out hydrological studies but because it is an important means to an equally important end: use of water for human survival and improving the well being of people through food and energy self sufficiency. Hence hydrologists have important role in reaching towards the twin goals of national and energy self sufficiency. Other important role of hydrologists is to ensure that hydrological activities do not contribute to environmental degradation. Similarly third issue where hydrologists can significantly contribute is the climatic changes. Apart from these the conventional role of hydrologists in design, component processes etc. are well recognised.

All the above issues call for a strong research and development effort. However, before any such effort is attempted it would be worthwhile to take stock of situation and know where have we been, where are we and where do we want to go. That is where the importance of identifying the thrust areas of research comes into picture. It is, therefore, felt desirable to take a quick look at the status of R & D in hydrology and water resources in India vis - a - vis the global trends. By the very nature of this, the two days National Workshop shall provide an overview of R & D and hence bring out thrust areas of research in hydrology which need short and long term attention.

The background material in the form of review and overview has been contributed by experts from Central Water Commission, India Meteorological Department, Central Ground Water Board, National Institute of Hydrology, educational institutes and some selected State Governments. I am sure that this background material shall provide an excellent food for thought for this Two Days National Workshop and the outcome of this workshop shall go a long way in channelising the financial resources allocated for R & D in hydrology sector.

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