

PREFACE

The water is one of the important natural resources available to mankind. Due to its multiple benefits and the problems created by its excesses, shortages and quality deterioration, the water has a unique role as a resource and deserves special attention of development and planners. With the growth of human civilization, man's requirement of water have increased considerably to meet demands for irrigation, power generation, navigation, industries, recreation etc. apart from domestic supplies. With the increasing pressure of rising population, there is growing need for finding, developing and maintaining suitable source of water supply and for proper management of this natural resource.

Water resources has been a relatively neglected subject in the education curricula in the developing countries especially at the secondary school and undergraduate level. A survey conducted by UNESCO secretariat revealed that the fields in which a general hydrology course is offered in developing countries are usually Civil Engineering, Agricultural Engineering, Geology and Geography. Most institutions concentrate on scientific education leaving application of the knowledge to be learnt during the course of employment. A comprehensive programme of education in water resources is therefore essential. It may be noted that no amount of training can substitute a well planned education programme. The post graduate education and training in Hydrology and Water Resources in India has progressed remarkably well. However, due to somewhat uncertain career prospects for hydrology as a profession in the country, the undergraduate education currently gives varying levels of coverage/ emphasis to hydrology subjects in Civil and Agricultural Engineering areas.

In order to meet the needs of short term and long term plans for water resources development in the country, creation of suitable mechanism for education and training of hydrologists is not only necessary at degree and post graduate level but also at junior levels, viz overseer, technician, observer, etc. Adequate trained manpower is necessary to improve the capabilities of operational organisations in the centre and in the states in regard to observation as well as primary and secondary processing of hydrological data. Though there is no regular course for technician training in hydrology, meteorology and other related fields, various organisations like Central Water Commission, India Meteorological Deptt., Central Ground Water Board, State Irrigation Departments, etc. dealing with subjects related to hydrologic cycle have created facilities for on the job and in-service training of personnel. There is, however, no formal training programme for technicians and observers.

This special issue of Jalvigyan Sameeksha is devoted to the theme of "Education & Training" and nine invited papers by experts have been published covering various aspects of Education and Training in hydrology and water resources. The views expressed in these papers would be useful for those involved in teaching and training working in the area of hydrology & water resources as well as development planners.



(S M SETHI)

DIRECTOR