



PREFACE

Groundwater is an important source of water for drinking as well as irrigation in our country, especially in rural areas. With the increased exploitation of groundwater resources and growing impact of human activities on aquifer systems, groundwater problems are also on the increase. Even though ground water is a renewable resource, few aquifers can withstand enormous extraction rates. Similarly, all activities carried out on the land surface have a potential to pollute ground water. Therefore, genesis of all groundwater problems can be attributed either to contamination or overexploitation.

The need of the hour is sustainable management of groundwater resources. In other words, there should be a sustainable balance between groundwater development and utilisation without contaminating the aquifer systems. Scientific understanding facilitates well-informed planning and effective implementation. Understanding the nature and extent of groundwater regimes and problems, as well as preventive measures based on process information forms an important aspect. Knowledge of groundwater management strategies aided by state of the art tools like groundwater modelling will certainly helps to achieve the objectives of groundwater management and protection.

In view of the importance of the above issues, the National Institute of Hydrology has decided to organize a short training workshop on the topic "Ground Water Resources Management" as part of the Hydrology Project (Phase II) activities during December 11-13, 2013. This volume of lecture notes forms part of the training course material. The lecture notes are prepared by the scientists of the Institute. I hope that the Training Workshop would be of great benefit for the participants from various States and Central Organizations to gain a better understanding in the subject area. I wish success to the Workshop.

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