PREFACE

Water is essential for the existence of the biotic world including human beings. It is required nearly for all activities of humankind. The supply of usable water is however limited and can be depleted or made unusable by excessive utilization, pollution or careless management. Further, it is not available in the same quantity everywhere. There is surplus water at one place and shortage at the other. Under such conditions, coordination between demand and supply as well as between different sources of water resources is imperative. The gap between demand and supply of safe drinking water is increasing every where and the hilly areas are the worst sufferers in-spite of having relatively higher annual rainfall. With the growth of civilization, the issues of water quantity as well as quality are becoming very important for sustainable development. The water crisis is about the management of these competing needs - the vast rural economies, which need water for their food, livelihood, security and the newer growth economies of modern and industrial India. This water competition is leading to conflicts between different users. Thus, issue of water is not only about scarcity but about its careful use and about its equitable and distributed access with acceptable quality.

Himachal Pradesh is one of the states of India included in the Hydrology Project Phase II. In this connection, a PDS entitled "Impact of sewage effluent on drinking water sources of Shimla city and suggesting ameliorative measures" has been awarded to the Institute under HP-II, keeping in view the mass level jaundice as witnessed in a part of Shimla City in the recent past years due to entry of bacteria/pollutants into the drinking water supply system. Thereafter, various field and lab investigations under PDS are in progress in collaboration with I&PHE Dept., Shimla. Subsequently, it is proposed to organize a 3 days training course on "Water Quality and Its Management" at Shimla for the Junior/Middle level Officials of I&PHE Dept. (H.P.). In this training, Er. R.K. Sharma (Engineer-in-Chief), Chief Engineer, SE/Nodal Officer (HP-II), Er. Sanjiv Kaul (EE), Er. Ashish Rana (AE) and other officers of I&PHE Dept., Shimla were associated from very beginning to coordinate/facilitate for organizing the present training course at Himachal Pradesh Institute of Public Administration (HIPA), Shimla.

The training course material has been compiled by Dr. V.K. Choubey, Scientist F; Shri Omkar Singh, Scientist E2, Dr. M.K. Sharma, Scientist C, and Dr. Rajesh Singh, Scientist B, NIH, Roorkee. The course material would be useful to the trainees in particular and other concerned individuals/authorities in general who are engaged in the areas of water resource development & management. Rg Deva Singh (R.D. Singh)

Director, NIH

Place: Roorkee

Dated: 1st September, 2011