

## FOREWORD

Groundwater is a vital resource for communities and ecosystems in coastal zones. In many coastal regions, groundwater is the primary or sole source of drinking water supply and irrigation. Groundwater sustains the flow of coastal streams and rivers and is a source of freshwater to coastal ponds, wetlands, and other coastal ecosystems.

Because of a growing awareness of the critical role of groundwater in sustaining coastal populations, economies, and ecosystems, it is the right time to review some of the important water-management issues and scientific principles related to groundwater in the coastal zones, and to identify the scientific and management challenges that lie ahead.

As coastal populations and groundwater use increase, new monitoring and research efforts are needed to characterize the occurrence and movement of saline groundwater in different types of coastal terrains and to better understand linkages between groundwater discharge and quality and the health of coastal zones.

Being aware of the threat of saltwater intrusion, the central and state agencies have intensified coastal groundwater monitoring and assessment projects, and increased the coastal aquifer management efforts.

The aim of the proposed training course is to impart a 5-day training for officials from Groundwater Departments of Gujarat on conducting hydrological monitoring and investigations in coastal regions, data analysis, and sustainable groundwater development and management of water supply in coastal regions of Gujarat.

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