PREFACE

Estuaries are the interface between fresh water and salt water systems, the biological productivity of which are normally very high consequently the population density is also very high resulting many biotic and abiotic problems including pollution aspects. With the increasing concern over the environmental consequences of waste discharges into the aquatic environment it has become necessary if not mandatory to determine the toxic load reaching the aquatic system all over the world. The present study is an attempt to identify and estimate metal pollutants in the sediments and over lying water column in the Cochin harbour area.

The first chapter introduces a comprehensive account on the historical background of the Cochin harbour, significance of metals in aquatic environment, review of pertinent literature and identification of the study area.

The second chapter describes the methodology in detail, and a review of the state of the art of extraction technique.
The third chapter contains the results on the concentration of the dissolved and particulate metals in the water column. Efforts have been made to understand the relation of these metals with salinity during estuarine mixing.

The fourth chapter describes the concentration of metals in sediments and core samples. The quantum of metals to which the biotic constituents are likely to interact have been estimated to assess their bioavailability and toxicity in the system.

The fifth chapter summarises the results and conclusions emanating from the study.

The papers published/presented in the relevant field in National and International journals/seminars have been appended.