ACKNOWLEDGEMENTS

The author is deeply indebted to Dr. M. Anji Reddy, M.Sc., M.Tech., Ph.D (R.S), Centre for Environment, I.P.G.S.R., Jawaharlal Nehru Technological University, Hyderabad for his valuable guidance, suggestions and encouragement throughout the progress of this work.

Grateful thanks are due to Prof. Y. Anjaneeyulu, Head of the department, Centre for Environment and the university authorities as well, for extending facilities.

I am grateful to Prof. K.V.G.K. Gokhale, former Head of the Civil Engineering department, I.I.T., Kanpur, for his precious suggestions, technical advice and help throughout the editing of the thesis.

I would like to express my sincere thanks and gratitude to the Director, N.R.S.A., Balanagar, Hyderabad.

It gives me immense pleasure and pride to acknowledge the help from the Head and all his team of scientists, Integrated Surveys Division, N.R.S.A., for their valuable suggestions and guidance given to me time to time without which this work would not have been successfully completed.

I would like to express my thanks to my class-mates and friends Sri. M. V. Rao, Sri. K.H. Rao and to all the scientists and Junior Research Fellows in general and to Mr. Thota Tilak in particular, Oceanography Division, N.R.S.A, for their affectionate help.

My sincere thanks are due to Dr. K.V. Ramana, Soil Group and to Sri. A. Ravikumar and Sri. K. Venugopal, I.A.I. division, N.R.S.A. I am also thankful to the Librarian, N.R.S.A. Library wing for having providing me access to the rich N.R.S.A. library. I would like to express my thanks to Sri. R. Naga Raja, Land Use division and to Dr. S.V.C. Kameswara Rao, Sri. Y.V.S. Murthy, Dr. J. Ramana Murthy and Sri. G. Hanumantha Rao (I.S.D.), N.R.S.A for their help in the correction of thesis.

I would like to express my sincere thanks to Dr. S.V.G.K. Bhagavan, Director, A.P.S.R.A.C., Hyderabad for having providing me the relevant data and for the valuable suggestions.

Sincere thanks are extended to the Director, Central Ground Water Board, Southern Region, Hyderabad and the Director, State Ground Water Department, Hyderabad and Director, Geological Survey of India, Director, N.I.C., Hyderabad and Director, Directorate of Economics and Statistics and C.P.O. Ongole for according permission to utilise the data in the present work.

I want to express my thanks to Smt. Himabindu, Smt. Vijayalakshmi, Mr. Mohana Vamshi, Mr. A. Shiva Sankar, Mr. S. Pavan Dayakar, Miss. Lina, Miss. Nesa
and Miss. S. Pavani, Centre for Environment, for their assistance and continuous encouragement.

I want to express my appreciation to Sri. T. Shanta Kumar, Sri. G. Sailesh, Sri. Someswara Rao, and Sri. M. Venkat Rao for their administrative support and help in typing the thesis.

I am greatly indebted to the college management, V.R.S & Y.R.N. College, Chirala, The Commissioner, Collegiate Education, Hyderabad, The Joint Secretary, University Grants Commission, S.R.O. Office, Hyderabad, for having providing me this opportunity through Faculty Development Program, U.G.C., IXth plan period.

I wish to express my deep sense of affection to all my family members, who have co-operated at home to undertake the present research work.