Acknowledgements

Any Doctoral research work is a long journey that requires help of many people and organizations. A section on acknowledgement provides a wonderful opportunity to express the gratitude towards all those who supports helps and guide during this long journey.

I am indebted to Dr T S Panwar and Dr. Meeta Keswani Mehra, my supervisor and co supervisor, for their guidance. I am thankful to their patience listening and support they provided to complete this work. I am extremely grateful for all the guidance and help provided by both of them. I express my gratitude to my Student Research Committee members Dr Leena Srivastava and Dr. Vidya S Batra for their periodic evaluation and suggestions. I am extremely grateful to Dr.Leena Srivastava for giving me suggestions and guidance since the formulation of this thesis work. Her suggestions have always enlightened me to understand the research problem from every perspective and helped me to improve my skills.

I would like to express my gratitude to Dr R.K. Pachauri, Chancellor, TERI University, Dr P.P. Bhojvaid, Vice Chancellor, TERI University, Dr. Vibha Dhawan and Dr. T P Singh (former Vice chancellors, TERI university), for providing me with infrastructure support. I also acknowledge the financial support provided to me by University Grants Commission (UGC) under the Junior/ Senior Research Fellowship Program in Environmental Sciences during this research.

I would also to express my sincere regards towards my teachers who taught me during my pre-PhD course work Dr S.K. Sarkar, Dr A.R. Sihag, Dr Vishal Narayan, Prof. Subhas Chandra, Dr S. Sreekesh, Dr Akram Javed, Mr Yateendra Joshi, Mr Arvind Seth, and all the faculty members of the TERI University. I am extremely thankful to Dr Prateek Sharma and Dr Arun Kansal, Faculty TERI University (who were my teachers during my M.Sc. program) for their help and guidance.

This work involved collection of data from many organizations. I would like to acknowledge all the help that I received to accomplish this task. I would like to
thank all people in TERI with whom I interacted and received the support. Special thanks to Dr. Alok Adolaya, Dr. Y P Abbi, Dr. Suneel for their help in providing valuable contacts to collect the data. I am thankful to Mr. Gaurav Dwivedi (former collector, Korba), Mr. Anurag Diwan (Mining Officer, Korba), Dr. Anita Yadav (Scientist, Regional Pollution Control Board) for the help provided in data collection at Korba, Chattisgarh. I am also thankful to Mr. G K Nanda (Director, CEA), Mr. Anil K Sachan, Mr. A K Singh (NRLDC), Mr. P K Srivastava (NRLDC), Mr. J S Kamyotra (Member Secretary, CPCB), Dr. Sanjeev Paliwal (Scientist, CPCB), and Dr. Rajinder (Director, Envirotech). I express my special thanks to Mr. Suneel Khare, without his help I would not have been able to collect the data in Korba, Chattisgarh.

I would like to express my thankfulness to all personnel at TERI library, CIT and accounts department. Mr. Baldev Chand, TERI library; Mr. Jagpreet, CIT; Mr. Ehasaan, Mr. Kaushal and Mr. Kesar Singh, Photocopying and dispatch section and Ms. Veena. All of them have always been extremely helpful. I duly acknowledge the help provided by them.

I would also like to thank Mr. Shenoy Mooken for all his help provided during times of need. It would not have been possible to bring it in a good shape at the end without his help in formatting. Administrative support by Mr. Kamal Sharma, Mr. Sunil and Ms. Pratibha is also duly acknowledged.

Now it’s the turn to thanks my seniors, juniors, batch mates and friend’s. I wish to thank Mr. Sarawati Prasad, Dr. Anand Tiwari, Dr. Nirmal Kumar Saha, Dr. Deepak Pant, Ms. Hema Patel, Dr. Nitu Sood, Dr. Ritu Paliwal, Dr. Nishritha Bopana, Rajalakshmi Muralidharan, Dr. Sangeeta Sen, Dr. Sonali Patle, Ms. Susmita Sahu, Ms. Aditi, Dr. Yamini Satyawali, Ms. Deepshikha and Mr. Pawar. I especially thank, Dr. Nirmal Kumar Saha, Ms. Nitu Sood, Ms. Susmita Sahu, Dr. Nishritha Bopana for correcting my publication, their suggestions and patience listening.

I would also like to thank, Mr. Vasudev (worked as JRF at CPCB), Ms. Sadhna Pardanang, Dr. Dawa, Mr. Shiva Kumar Sharma, Mr. Pankaj Jangid and Dr. Shishir Gaur who provided me help and became my friends during my research and. Help from Dr. Kamna Sachdeva and Dr. Amit (Research Scholar, JNU) is duly acknowledged.
Above all, I thank my family (my brother Deepak, my sister Chitra and my parents). I thank my parents for educating me, and for providing me their unconditional support and encouragement to pursue my interests. My father accompanied me during my first field visit to make me comfortable and secure. My brother and sister have always made me cheerful and happy. It would not have been possible to complete this task without their support.

Last, but not least, I thank almighty GOD who blessed me with the strength, support and help of my family, friends and all known and unknown people. I thank all of them.

Nemika Relhan
New Delhi