ACKNOWLEDGEMENT

I wish to take this opportunity to express my sincere gratitude to my supervisor, Prof. V Subramanian, for his keen interest, constructive criticism, constant support and encouragement during the course of this work. I am especially indebted to him for creating a friendly environment that was particularly conducive for research.

I also, owe many thanks to the Dean Prof. J. Subba Rao, the faculty and staff of the School of Environmental Sciences for providing administrative and research facilities, without which completion of this work would have been impossible.

I take this opportunity to thank my friends and colleagues who stood by me, during periods of uncertainty. I shall be forever grateful to: Bharat Raj Meena, Swarna Muthukrishnan, Jagdish Chandra, S. Balachandran, Preet Singh, Anju Malik, Ashima Pandit, Kritika Singh, Vinit Misra, Madan Koirala, and many others from Kenya, India, USA, Canada, Germany and the UK.

I also want to express my appreciation to the special team of lab-mates, without whose support and co-operation, it would have been impossible to successfully complete this work. I owe many thanks to Sujit Bajipayee, Anuradha Verma, Abhay Kumar, C. Chatterjee, Dr D. S. Chatterjee, Dr S. Annadurai, N. Madhavan, M. Tamil Selvan, Manoj Kumar, Dhiraj Kumar Singh, Satyendra Kumar, Shridhar Reddy and Kumar Suranjit. I am especially indebted to Manju Rawat for actively participating and taking a keen interest in the work reported herein.

I wish to extend my sincere appreciation to Benson Agaya, Dr Issa Kipera, Dr Solomon Genet, Jamin Masinde, Dr Paul Chepkuto, Dr Abdisalam Mohamed, J. Miguda-Attyang and Andrew Rasugu Riechi for generating the family atmosphere while away from home. Their support and encouragement made life much more bearable, especially during hard and difficult periods.

I thank the Indian Council for Cultural Relations (ICCR) for financial support. Further, I wish to thank the Director (Dr Harry Kaane) and the staff of the Kenya Industrial Research and Development Institute (KIRDI) for their support during the course of this study programme. I am also grateful to Ambassador L. Amayo, his Deputy Ms Agnes Mandi and the staff of the Kenya High Commission in New Delhi, for their support and encouragement during my stay in India.

I wish to extend my special thanks to my mother (E. Kemunto Moturi), my father (Zuriels Moturi), my brothers (Francis, Joshua and George), my sisters (Jeliah, Eunice, Martha and Alice), my sister-in-laws (Sarange, Zibiah, Ayuma and Willofrica), my brother-in-laws (Omanji, Onyancha, Okiko and Nyambane), my nephew (Thomas Abincha) and other members of the family, for their constant prayers and moral support. Thank you for believing in me.

Finally, I want to express my special appreciation to my wife Alice and the children, Kelvin, Katherine, Michael and Sheila, for standing by me during the entire course of this programme. Without their love, patience, co-operation, prayers, letters of encouragement and moral support, it would have been impossible to accomplish this goal.