ACKNOWLEDGEMENTS

It is with highest gratitude to express my sincere thanks to my supervisor Dr. M.L. Khan, Professor and Co-supervisor Dr. L.B. Singha, Assistant Professor, Department of Forestry, North Eastern Regional Institute of Science and Technology; for their guidance and assistance, consistent encouragement, critical comments and corrections in the manuscript that enabled me to complete my research work.

I would also like to express my sincere thanks to my Doctoral Committee members Prof. C.L. Sharma, Chairman DC, and Dr. O. P. Tripathi, Dr. P.R. Gajurel and Dr. L.B. Singha, DC Members, Department of Forestry, NERIST for their valuable and critical suggestion for the progress of my research work.

I am grateful to Prof. C.L. Sharma, Head, Department of Forestry, for his enormous support, all laboratory facilities provided and valuable advice during the entire period of my work. I am also thankful to the Director and Deans, NERIST, for providing all facilities during the progress of my work.

I am gratefully indebted to the faculty members of the department- Prof. P. Rethy, Prof. B. Singh, Dr. M. Sharma, Dr. P.P. Mary, Dr. K. Srivastava, Dr. S.S. Singh, Dr. A. Kumar and Mr. G. Pangging for their kind support, help and encouragement.

Thanks are due to Dr. Ksh. Raseshowri Devi, Ch. Sadananda Singh, Binita Medak and Bullo Omang, for their aid and constant encouragement despite of their busy schedule. I also acknowledge Kh. Ronald, P. Shivakanta, Y. Bijoy, Robert Panmei, Kh. Kennedy Singh, Y. Romeo Singh, T. Pamei, N. Jackson, W. Bailo, Dr. Yumnam Jimmy Yebzeny, Dr. K. Ratan, N. Shobaharani, Ksh. Tayal, S. Lenin, Soyala Kashung, W. Deepanita Devi, N. Ingocha Singh, Wungsim Zimik, Salam Babool, Namdev Salam, Momo, P. Saratchandra Sharma, Bala Subramanyam, Anup K. Das, Murli Khrishna, Parimal Ray, B. Rubul, Kuladip Sharma, Amal Bawri, L. Tashi, Kabuk Lego, Biranjoy Basumatary, Birjit Basumatary and others who supported me directly or indirectly during my PhD work.
I am also thankful to my friends Mr. K. James (Asst. Prof. Department of Civil Engineering), Mr. Rusnik Mangang (Asst. Prof. Department of Electronics), Mr. Ghanashyam (Asst. Prof. Department of Chemistry) for their endless encouragement. I am also thankful to the Department of Agriculture, Arunachal Pradesh and Mizoram for their support and interest during the field studies. I also acknowledge Regional Meteorological Centre, Guwahati for sharing their valuable meteorological data.

It is my responsibility to thank all the people of Arunachal Pradesh and Mizoram for their warm welcome during my field visit and their endurance in helping me. To name a few Mr. Gumin Tamuk, Mr. P. Payum (Assistant Professor, J.N. College, Pasighat), Mr. Kashok Halley (Range Forest Officer, Arunachal Pradesh), Mr. Lalkhuma and Mr. M.S (Research Scholar, Mizoram University), Mr. Basanti, Mr. Ksh. Kanto and others who help me directly or indirectly are duly acknowledged.

Last but not the least, it will be impossible to accomplish my work without the support, love and endurance of my family. Their encouragements and believes are my driving force to venture beyond the limits and therefore, I am very grateful and thankful to my beloved family members.

Date: 06th December 2014
Place: NERIST

(Salam Dilip)