## TABLE OF CONTENTS

Chapters	Titles	Page nos
1	INTRODUCTION	1-6
	References	7-18
2	REVIEW OF LITERATURE	
2.1	CO <sub>2</sub> emission a global problem	19
2.2	CO <sub>2</sub> as greenhouse gas	19-20
2.3	Greenhouse gases and climate change	20
2.4	Sources and sinks of CO <sub>2</sub>	20-23
2.5	CO <sub>2</sub> flux measurement by eddy covariance	23-24
2.6	Global CO <sub>2</sub> flux studies	24-26
2.7	Indian study on CO <sub>2</sub> flux	26-27
2.8	Different factors affecting the CO <sub>2</sub> flux	27-34
2.9	Partitioning of NEE	34-38
	References	39-71
3	MATERIALS AND METHODS	
3.1	Forest ecosystem of the study (Kaziranga National	72
	Park)	
3.2	Location of the flux tower inside the forest	72-73
3.3	Eddy Covariance method	73-74
3.4	Instrumentation on the tower	74-79
3.5	Processing of EC data	79-81
3.6	Measurement of leaf area index	82
3.7	Partitioning of net ecosystem exchange	82-84
3.8	Soil sample analysis	84-91
	Figures and Tables	92-95
	References	96-99
4	RESULTS	
4.1	Results under objective 1	100-106
4.2	Results under objective 2	107-124
4.3	Results under objective 3	125-130
4.4	Results under objective 4	130-140

5	DISCUSSSION	
5.1	Objective 1	141-142
5.2	Objective 2	142-147
5.3	Objective 3	147-150
5.4	Objective 4	150-152
	References	153-160
6	SUMMARY AND CONCLUSION	161-166
	APPENDIX	xviii