

## TABLE OF CONTENTS

Chapter No.	Details	Page No.
	Certificate	i
	Preface	ii
	Acknowledgement	iii-iv
	Contents	v-vi
	List of Tables	vii-x
	List of Figures	xi
	Acronyms	xii-xiv
CHAPTER-I	INTRODUCTION	1-17
	1.1 Back Ground of Study	2-6
	1.2 Rationale of Study	6-9
	1.3 Objectives of Study	9-10
	1.4 Scope of Study, Research Design and Sources of Data	10-13
	1.5 Scheme of Chapters	13-15
CHAPTER-II	REVIEW OF LITERATURE	18-69
	2.1 Introduction	20-22
	2.2 History of Road Development and Tolls	22-30
	2.3 Evolution of Road Pricing Theories	30-35
	2.4 International Experience for PSP Programmes in Road Sector	35-41
	2.5 National Highway Development Project (NHDP) and Financing of Indian Highways	41-52
	2.6 Planning and Management of Toll Roads	52-60
	2.7 Willingness to Pay for Toll Roads	60-61
	2.8 Conclusions	61-63
CHAPTER-III	PRIVATE SECTOR PARTICIPATION: DESIGN OF CONCESSION & INTERNATIONAL EXPERIENCE	70-144
	3.1 Introduction	72-73
	3.2 Spectrum of PSP	73-76
	3.3 Public-Private Partnership: A changing delivery system	76-82
	3.4 Public-Private Partnership and Concession Design	82-96
	3.5 International Experience for PSP Programmes- European Innovations in Contracting Practices Untapped In India	96-111
	3.6 International Experience for PSP Programmes on Concessions	111-135
	3.7 Conclusions	135-139
CHAPTER-IV	DEVELOPMENT OF NATIONAL HIGHWAYS IN INDIA: AGENCIES AND PROGRAMME	145-241
	4.1 Introduction	147-148
	4.2 Present Road Network in India	148-151
	4.3 National Highways in India	151-152
	4.4 Qualitative Aspect of Indian National Highways	152-154
	4.5 Genesis of National Highways Development Project (NHDP)	154-164
	4.6 Dedicated Cess Funds For NHDP	164-166
	4.7 Implementation & Financing of NHDP	166-183
	4.8 Twin Suppliers of NH Development & Their Convergence	183-212
	4.9 Use of Model Concession Agreements for PPP in NH	212-224
		***************************************

	Segment and Issues	
	4.10 Approval of PPP Projects by Public Private Partnership Appraisal Committee	224-232
	4.11 Conclusions	232-23
CHAPTER-V	TOLL PROJECTS FOR ROAD SECTOR IN INDIA: CASE STUDIES	242-410
	5.1 Introduction	244
	SECTION-I BACKGROUND FOR CASE STUDIES	
	5.2 Design of Concessions and Bidding Criteria for BOT Projects	245-252
	5.3 Selection of BOT Projects for Case Study	252-25
	SECTION-II DISCUSSION AND ANALYSIS OF CASE STUDIES	
	5.4 CASE-1 Chalthan - Road Over Bridge	254-27
	5.5 CASE-2 NOIDA Bridge	271-32
	5.6 CASE-3 Vadodara –Halol Road	324-36
	5.7 CASE-4 NICE (Narmada Bridge)	362-39
	SECTION-III PRIVATE PROJECT FINANCING ASPECTS	
	5.8 Private Project Financing Aspects in Concession Designs	395-39
***************************************	5.9 Conclusions	398-41
CHAPTER-VI	ROAD PRICING AND WILLINGNESS TO PAY TOLLS	417-47
	6.1 Introduction	419
	SECTION-I THEORETICAL BACKGROUND	
	6.2 Theoretical Aspects of Road Pricing and Willingness to Pay	419-42
	6.3 Issues of Sectoral Taxes on Indian Road Sector	424-42
	6.4 Tolling Legislation in India	428-43
	6.5 BOT Projects and Application of Tolls	431-43
	SECTION-II EMPIRICAL ANALYSIS	<del> </del>
	6.6 Field Survey for Identifying Issues Related To WTP of Road Users	435-47
	6.7 Conclusion	471-47
CHAPTER-VII	CONCLUSIONS AND SUGGESTIONS	480-50
	7.1 CONCLUSIONS AND SUGGESTIONS	481-50
	7.2 SUGGESTION FOR MORE ACCOUNTABLE AND FLEXIBLE CONCESSION AGREEMENT.	504
	BIBLIOGRAPHY	505-51
	APPENDIX – 1	519-52
	APPENDIX – 2	523-52
	APPENDIX – 3	528
	APPENDIX –4	529