LIST OF FIGURES

No.	Figures	Page No.
1.1	Location map of study area	8
1.2	Physiography of Gujarat state	10
1.3	Geology of Gujarat state	11
1.4	Coastal segment map of Cambay basin	12
1.5	Isohytes of Gujarat state for year 2011	14
1.6	Average tidal level at Dahej, Bharuch District	15
1.7	Current pattern in Gulf of Cambay	16
1.8	Drainage pattern of Gujarat state	18
4.1	Graphical representation of methodology	68
4.2	Graphical representation of remote sensing part	69
4.3	Characteristics of oil wells and brick kilns in satellite image	79
4.4	Overview of the field survey	90
4.5	Graphical representation of PCQM method	92
5.1	Area covered by barren mudflats in Jambusar	104
5.2	Area covered by different barren mudflat categories in Jambusar	104
5.3	Areal extent of mangrove in Jambusar	104
5.4	Areal extent of salt marsh vegetation in Jambusar	104
5.5	Areal extent of algae in Jambusar	105
5.6	Areal extent of scrub in Jambusar	105
5.7	Area covered by different types of water bodies in Jambusar	105
5.8	Area of barren land in Jambusar	105
5.9	Area of habitation in Jambusar	106
5.10	Area occupied by various industries in Jambusar	106
5.11	Area of agricultural land in Jambusar	106
5.12	Conversion of categories "From-To" observed in the present study	108
5.13	Categories converted to saltpan industry during 1978-2000	109
5.14	Categories converted to saltpan industry during 2000-2012	109
5.15	Categories converted to oil well during 1978-2000	115
5.16	Categories converted to oil well during 2000-2012	115
5.17	Area of mudflat in Vagra	126
5.18	Areal extent of different barren mudflat categories in Vagra	126
5.19	Areal extent of mangrove in Vagra	127
5.20	Areal extent of salt marsh vegetation in Vagra	127
5.21	Areal extent of algae in Vagra	127
5.22	Areal extent of scrub in Vagra	127
5.23	Areal extent of various types of water bodies in Vagra	128
5.24	Areal extent of barren land in Vagra	128
5.25	Area of habitation in Vagra	129
5.26	Area occupied by various types of industries in Vagra	129
5.27	Area of agricultural land in Vagra	130
5.28	Area of forest in Vagra	130
5.29	Categories converted to saltpan industry during 1978-2001	132
5.30	Categories converted to saltpan industry during 2001-2012	132
5.31	Categories converted to oil well during 1978-2001	138
5.32	Categories converted to oil well during 2001-2012	138
5.33	Area covered by mudflat category in Hansot	146

Figures

5.34	Area covered by different barren mudflat categories in Hansot	146
5.35	Areal extent of mangrove in Hansot	147
5.36	Areal extent of salt marsh vegetation in Hansot	147
5.37	Areal extent of algae in Hansot	147
5.38	Areal extent of Porteresia coarctata in Hansot	147
5.39	Area covered by scrub in Hansot	148
5.40	Area of different types of water bodies in Hansot	148
5.41	Area of barren land in Hansot	148
5.42	Area of habitation in Hansot	148
5.43	Area occupied by different industries in Hansot	149
5.44	Area of agricultural land in Hansot	149
5.45	Categories converted to aquaculture industry during 1978-1997	151
5.46	Categories converted to aquaculture industry during 1997-2012	151
5.47	Categories converted to saltpan industry during 1978-1997	157
5.48	Categories converted to saltpan industry during 1997-2012	157
5.49	Categories converted to oil well during 1978-1997	157
5.50	Categories converted to oil well during 1997-2012	157
5.51	Area covered by mudflat in Aliabet	167
5.52	Area covered by different barren mudflat categories in Aliabet	167
5.53	Areal extent of mangrove in Aliabet	167
5.54	Areal extent of mangrove in Anabet Areal extent of salt marsh vegetation in Aliabet	168
5.55	Areal extent of algae in Aliabet	168
5.56	Areal extent of <i>Porteresia coarctata</i> in Aliabet	168
5.50	Areal extent of <i>roheresta coarctata</i> in Anabet Areal extent of scrub in Aliabet	168
		169
5.58	Areal extent of different types of water bodies in Aliabet	
5.59	Area of barren land in Aliabet	169
5.60	Area occupied by industries in Aliabet	169
5.61	Area of road in Aliabet	170
5.62	Area of agricultural land in Aliabet	170
5.63	Categories converted to aquaculture industry during 2001-2012	171
5.64	Categories converted to oil well industry during 2001-2012	171
5.65	Destruction of mangroves in Hansot taluka	179
5.66	Trend in population and workers in (a) Jambusar, (b) Vagra and	181
	(c) Hansot talukas	
5.67	Hydrocarbon bearing fields in Ankleshwar asset (south Cambay	184
	basin)	
5.68	District wise projects under implementation in Gujarat	186
5.69	Map showing sites selected for the study of coastal vegetation	190
5.70	Distribution of diversity across different families	205
5.71	Variation in different structural attributes of mangrove across five	208
	different sites	
5.72	Change in the course of Kim river	212
5.73	Comparison of mangrove cover	213
5.74	Rainfall pattern across different talukas of Bharuch district from	214
	2003-2013	
5.75	Location map showing sites of sediment collection	217
5.76	Triangular diagram showing textural characteristics of coastal	218
	sediments	

No.	Figures	Page No.
5.77	Graphical representation of percentage of various grain size indicating (a) unimodal and (b) bimodal nature of sediments	219
5.78	Graphical representation of mean size for the coastal talukas	220
5.79	Graphical representation of standard deviation for the coastal talukas	221
5.80	Graphical representation of skewness for the coastal talukas	221
5.81	Graphical representation of Kurtosis for the coastal talukas	222
5.82	Scatter plot of Mean size vs Standard deviation	225
5.83	Scatter plot of Mean size vs Skewness	226
5.84	Scatter plot of Skewness vs Standard deviation	226
5.85	Scatter plot of Skewness vs Kurtosis	227
5.86	Variation in (a) pH, (b) electrical conductivity, (c) salinity and (d) organic carbon across three coastal talukas	230
5.87	Variation in (a) pH, (b) electrical conductivity (EC), (c) salinity and (d) organic carbon (OC) for area covered by mangrove and salt marsh vegetation and open/barren mudflat area	231