

## LIST OF FIGURES

Sl No.	Title	Page No.
1.1	Location map of the study area (Udalguri district)	3
1.2	Methodological approach flow chart for the work	8
2.1	Contours, micro relief areas and base lines for profiles of Udalguri district	23
2.2	(A) Longitudinal profiles along selected base lines, Udalguri district	24
	(B) Horizontal (cross sectional) profiles along selected base lines, Udalguri district	25
2.3	Relief zones, Udalguri district	26
2.4	3D view, Udalguri district	26
2.5	Relative relief, Udalguri district	28
2.6	Spatial variation of slope in Udalguri district (based on GIS technique)	33
2.7	Dissection index, Udalguri district	35
2.8	Spatial distribution of rainfall and temperature in Udalguri district	38
2.9	Area share under different rainfall ranges in Udalguri district	38
2.10	Spatial distribution of vegetation in Udalguri district, 2005-06	40
2.11	Circle-wise share of forest coverage, Udalguri district, 2005-06	43
2.12	Spatial distribution of population in Udalguri district, 2011	45
2.13	Circle-wise distribution of population in Udalguri district, 2001&2011	45
2.14	Spatial distribution of ST population in Udalguri district	46
2.15	(A) Circle-wise percentage of ST population to total population in Udalguri district	46
	(B) Circle-wise distribution of ST population in Udalguri district (in %)	46
2.16	Spatial distribution of SC population in Udalguri district, 2011	47
2.17	Circle-wise distribution of SC population in Udalguri district, 2011 (in %)	47
2.18	(A) Spatial distribution of population below six years of age in Udalguri district, 2011	48
	(B) Circle-wise distribution populations below six years of age in Udalguri district, 2001 and 2011	48

3.1	Spatial pattern of land use and land cover in Udalguri district, 2005-06	56
3.2	Spatial distribution of soils in Udalguri district	77
3.3	Area under soil types in Udalguri district (in %)	77
3.4	River streams, drainage density and stream frequency of Udalguri district	85
3.5	Circle-wise distribution of area (in km <sup>2</sup> ), streams length (in km.) and drainage density (in km./km <sup>2</sup> )	86
3.6	Flood hazard area map, Udalguri district, 1998-2007	87
3.7	Irrigation canals, Udalguri district	88
3.8	Circle-wise distribution of irrigation canal (in km.) and irrigation canal density (km./sq.km.)	89
3.9	Spatial distribution of ponds/tanks, Udalguri district	91
3.10	Ground water hydrology and ground water potential, Udalguri district	93
3.11	Ground water potential (yield in liter/second) in Udalguri district (area in %)	94
3.12	Distribution of rocks in Udalguri district	97
3.13	Spatial distribution of literate population in Udalguri district, 2011	110
3.14	Circle-wise distribution of literate population in Udalguri district (2001&2011)	110
4.1	Spatial concentration of selected natural resources, Udalguri district	117
4.2	Highest resource concentrated area showing in circle wise area (in%)	118
4.3	Circle wise variation of resource in Udalguri district	119
4.4	Types of LULC on different types of soils in Udalguri district	121
4.5	Types of LULC on different circles in Udalguri district	122
4.6	Agricultural types on different types of soils in Udalguri district	124
4.7	Roads and railway in Udalguri district	128
4.8	Spatial distribution of roads in Udalguri district	129
4.9	Circle wise development based on selected indicators (using GIS raster integration) in Udalguri district	133
4.10	Spatial distribution of workers in Udalguri district, 2011	135
4.11	Relation between resource and development in Udalguri district	137
5.1	Location of the sample villages	146
5.2	Selected sample villages on resource index map, Udalguri district	147

6.1	Circle wise linear regression between resource and development in Udalguri district	165
6.2	Circle wise linear regression between literacy and development in Udalguri district	167
6.3	Circle wise linear regression between SC & ST population and development	168

## LIST OF TABLES

Sl. no	Title	Page No.
2.1	(A) Spatial distribution of relative relief in Udalguri district	29
	(B) Relative relief categories of Udalguri district	31
2.2	Distribution of slope in Udalguri district	34
2.3	(A) Circle-wise dissection indices	36
	(B) Circle-wise dissection indices and their mean, SD & CV	36
2.4	Circle-wise population distribution in Udalguri district	50
2.5	Circle-wise ST, SC and general population in Udalguri district, 2011	51
3.1	Pattern of landuse and land cover in Udalguri district, 2005-2006	57
3.2	Circle-wise LULC and percentage area of LULC in Udalguri district, 2005-06	66
3.3	Circle-wise distribution of soils in Udalguri district	80
3.4	Spatial distribution of streams lengths and drainage density in Udalguri district	83
3.5	Circle-wise stream frequency in Udalguri district	86
3.6	Circle-wise distribution of ponds/tanks in Udalguri district	91
3.7	Projected levels of the life expectancy at birth, 2001-2025	108
3.8	Infant mortality rate	109
4.1	Levels of selected Infrastructure development in the Udalguri district and Assam	127
4.2	Estimates of gross district domestic product (GDDP) of Udalguri district and Assam, at factor cost by industry of origin at current prices, 2009-10	132
4.3	Distribution of workers and non workers in Udalguri district, Assam, 2011	134
4.4	Financial abstract of 11th 5 years action plan of Udalguri district under the project RKVY (2009-10 to 2011-12)	143
5.1	(A) Population characteristics of sample villages	155
	(B) Parametric characteristics of population in the sample villages	156
5.2	Kinds of workers in sampled villages	157
5.3	Distribution of land use, irrigation and production of sample villages, Udalguri district	158

6.1	Correlation between resource and development Index	165
6.2	Correlation between development index and literate population 2011	166
6.3	Correlation between development index and ST & SC population	168