EXPLORING LAND USE DYNAMICS AND FOREST CARBON STORAGE IN INDIA

Dissertation submitted in the partial fulfilment of the requirements for the award of the degree of

MASTER OF SCIENCE

Submitted by

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LIST OF ABBREVIATIONS

BLE - Broadleaved Evergreen

ABG - Above-ground biomass

AVHRR - Advanced Very-High-Resolution Radiometer

BGB - Below ground biomass

BLD - Broad-leaved deciduous

C3S - Copernicus Climate Change Service

CA - Cellular automata

CARS - CA model based on Multi-Type Random Patch Seeds

CD - Change detection

CLUE - Conversion of land use and its effects

CSV - Comma Separated Values

DEM - Digital Elevation Model

ESA CCI - European Space Agency

FAO - Food and Agriculture Organisation

FLUS - Future land use simulation

FSI - Forest Survey of India

GHGs - Greenhouse gases

GIS - Geographical information system

GL/SL - Grassland and Shrubs

Gtc - Giga Tonne Carbon

InVEST - Integrated valuation of ecosystem services and trade-offs

IPCC - International Panel on Climate Change

ISFR - India state of forest report

LC - Land Cover

LCCS - Land Cover Classification System

LCM - Land Change Modeler

LEAS - Land Expansion Analysis Strategy

LULC - Land Use/Land Cover

LULCC - Land Use Land Cover Change

LULUCF - Land Use Land Use Change and Forestry

MERIS - Medium Imaging Spectrometer

MLP-MC - Multi-layer Perceptron-Markov chain

MT - Million tonne

NASA - National aeronautics and space administration.

Net CDF - Network Common Data Form

NFI - National Forest Inventory

Pg - Peta grams

PLUS - Patch-generating Land Use Simulation

PROBA-V - PROBA-Vegetation

RS - Remote sensing

SNC - Second National Communication

SOC - Soil organic carbon

SPOT-VGT - SPOT-Vegetation

Sq. km - Square Kilometres

TOF - Trees Outside Forest

TCD - Total carbon density

Tg C - Tetra grams of carbon

UN FAO - United Nations Food and Agriculture Organization

UNFCCC - Nations Framework Convention on Climate Change

LIST OF FIGURES

Figure 1: Map showing the location of the study area on the global map and
land use land cover of India
Figure 2: Paradigm of the study – major steps followed
Figure 3: LULC maps for years 1992, 2000, 2010 and 2020
Figure 4: Land Use/Land Cover change for 5 classes, for the years 1992-2000
40
Figure 5: Land Use/Land Cover change for 5 classes, for the years 2000-2010
40
Figure 6: Land Use/Land Cover change for 5 classes, for the years 2010-2020
41
Figure 7: Land Use/Land Cover change for 5 classes, for the years 1992-202.41
Figure 8: Map showing Land Use/Land Cover change Intensity (1992-2000) 44
Figure 9: Map showing Land Use/Land Cover change Intensity (2000-2010)
45
Figure 10: Map showing Land Use/Land Cover change Intensity (2000-2010)
46
Figure 11: Map showing Land Use/Land Cover change intensity (1992-2020)
47
Figure 12: Distribution of Above Groung Biomass (AGB) across forest cover for
1992, 2000, 2010 and 202050
Figure 13: Distribution of Below Ground Biomass (BGB) across forest cover for
years 1992, 2000, 2010 and 202051
Figure 14. Distribution of Soil Organic Carbon (SOC) across forest area for years
1992, 2000, 2010 and 2020
Figure 15. Distribution of Litter Carbon across forest area for years 1992, 2000,
2010 and 202053
Figure 16. Distribution of Total Carbon Density across forest area for years
1992, 2000, 2010 and 2020
Figure 17. Simulated LULC map for 2050 and 2080 and distribution of Total

LIST OF TABLES

Table 1: Driving factors years, source, and resolution
Table 2: Distribution of LULC area (sq. km) statistics for years 1992, 2000, 2010
and 2020
Table 3: Distribution of LULC change analysis of 14 classes for time period
(1992-2000, 2000-2010, 2010-2020, 1992-2020) (area in sq. km)
Table 4: Distribution of LULC area (sq. km) statistics, 5 classes for years 1992,
2000, 2010, 2020
Table 5: Change matrix of different LULC classes (area in sq. km) from 1992-
2000
Table 6: Change matrix of different LULC classes (area in sq. km) from 2000-
2010
Table 7: Change matrix of different LULC classes (area in sq. km) from 2010-20
42
Table 8: Change matrix of different LULC classes (area in sq. km) from 1992-
2020
Table 9: Distribution of predicted LULC statistics for the years 2030 and 2040

TABLE OF CONTENTS

CERTIFICATE	2
ACKNOWLEDGEMENT	3-4
LIST OF ABBREVIATIONS	5-6
LIST OF FIGURES	7
LIST OF TABLES	8
CHAPTER 1	11
INTRODUCTION	11-16
CHAPTER 2	17
LITERATURE REVIEW	17-23
2.1. LULUCF and Forestry	17-18
2.2. Change Detection	18-20
2.3. Carbon Storage	20-22
2.4. Land Use Land Cover Simulation	22-23
2.5. Objectives and Research Questions	23
CHAPTER 3	24
STUDY AREA	24-25
CHAPTER 4	26
MATERIALS AND METHODS	26-35
4.1 Software	26-28
4.2 Data Sources	28-30
4.3 Land Use Land Cover Change Dynamics	30
4.4 Land Use Prediction	33-33
4.5. Carbon Storage Dynamics	34-35

CHAPTER 5	36
RESULT AND DISCUSSION	36-59
5.1. LULC Change Analysis	36-47
5.2. Carbon Storage in 4 Pools	47-54
5.3. Land Use Land Cover Prediction and Carbon Storage	54-56
CHAPTER 6	57
6. CONCLUSION	57-58
7. REFERENCES	59-69
8. ANNEXURES	70-72







Last Page

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