

**Riverbank Erosion-Induced Internally Displaced
Persons: A Comparative Study of Morigaon and
Dibrugarh Districts in Assam**

**A THESIS
SUBMITTED TO THE
SURYA KUMAR BHUYAN SCHOOL OF SOCIAL SCIENCES
KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY
For the Degree of
DOCTOR OF PHILOSOPHY**



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DEPARTMENT OF POLITICAL SCIENCE
KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY
GUWAHATI, ASSAM
2021**



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ACKNOWLEDGEMENT

At the outset, I would like to express my deep sense of gratitude to my supervisor Dr. Bipul Das, Associate Professor, Department of Political Science, Krishna Kanta Handiqui State Open University (KKHSOU), Guwahati, Assam, for his endless and precious guidance regarding my research work. I am obliged to him for rendering enormous help throughout my research work, without which my research would not have been possible. Again, I offer my heartiest gratitude to Prof. Joydeep Brauah, Director, Surya Kumar Bhuyan School of Social Sciences, KKHSOU, Guwahati, for his precious recommendations in my draft thesis and helped me to conclude the work effectively. I again offer my heartfelt gratitude to the honourable Vice-Chancellor, Prof. Kandarpa Das and Ex-Vice Chancellor, Dr. Hitesh Deka, KKHSOU, Guwahati, for giving me the formal opportunity to carry on my doctoral research work. In addition to it, I offer my sincere gratitude to Prof. Arup Jyoti Choudhury, Registrar, Dr. Dibyajyoti Mahanta, Dean (Study Centre) and Dean Academic (i/c) and Dr. Limpon Bora, Deputy Registrar (Academic), KKHSOU, Guwahati, for their continuous supports to carry on my research work.

I feel glad to express my sincere gratitude to Dr. Balendra Kr. Dev Choudhury (Ex-Principal) and all the faculty members of the Department of Political Science of Pub Kamrup College, Baihata Chariali, Kamrup (R), Assam for their commendable help and inspiration in pursuance of my research work.

I also offer special thanks to Mr. Biswajit Kalita, faculty in the Department of English, Suren Das College, Hajo, Dr. Aparna Goswami, former faculty in the

Department of Political Science, Chhaygaon College, Chhaygaon and Dr. Shantanu Chakravarty, faculty in the Department of Political Science, Cotton University, Guwahati, for their constant encouragement and help in conducting my research work.

I would like to offer my gratitude to Mr. Kushal Bora, Mr. Baharul Islam, Mr. Ranjan Gogoi, Mr. Niranjana Sarma, Dr. Prasenjit Das and all the seen and unseen persons providing help to me during my research work. I also like to thank Dr. Gautam Kumar Sarma, Assistant Librarian, KKHSOU, Guwahati, who provided me necessary library help throughout the research work. In addition to it, I am very much grateful to all the faculties and staff of KKHSOU, Guwahati, for their continuous support throughout my research work.

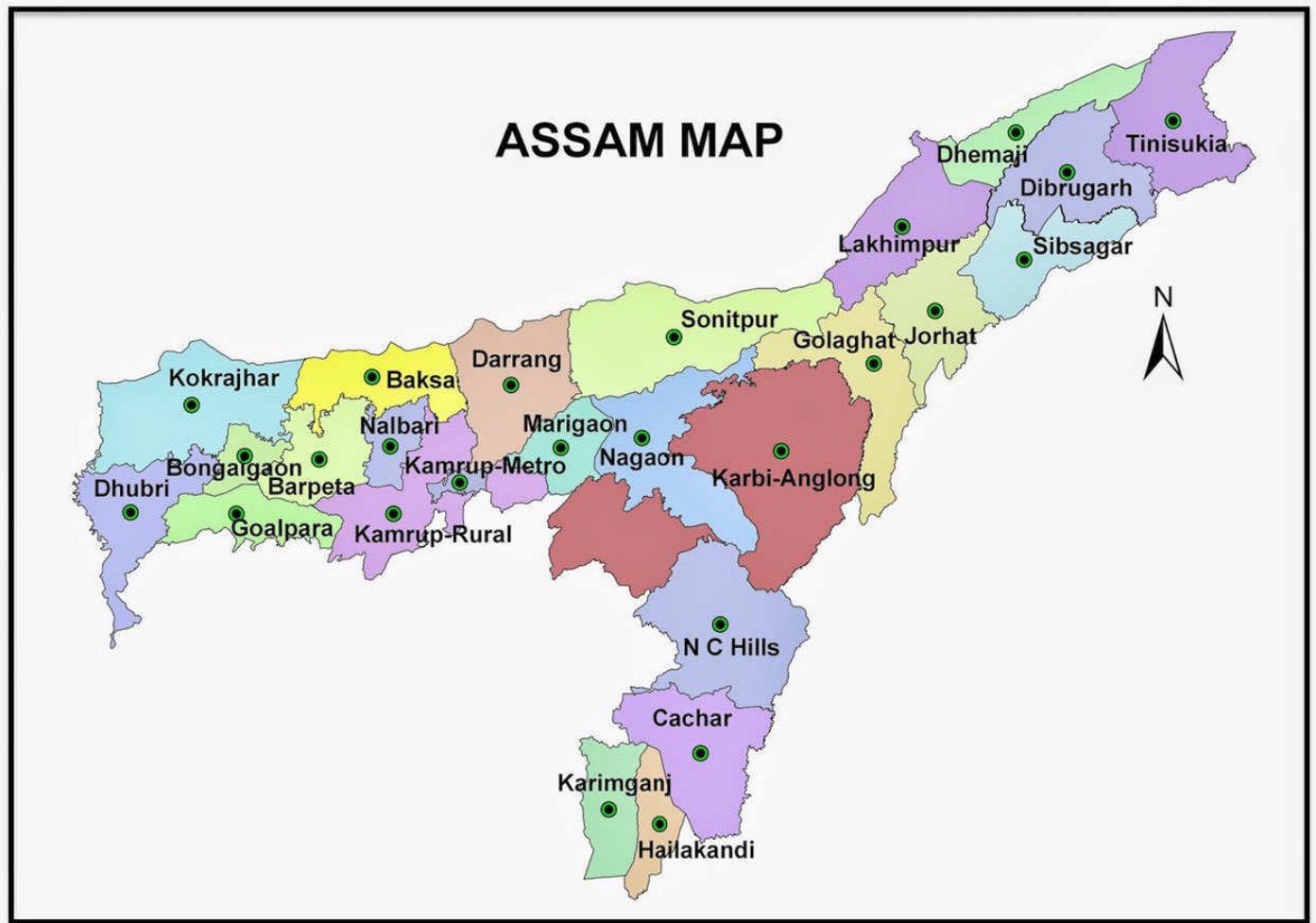
Finally, I offer my thanks to my elder brothers Mr. Ranen Sarma, Mr. Hiten Sarma, brother-in-law Mrs. Rajashree Sarma, my husband Dr. Dipen Tayung, my cousin Miss Nampoli Payeng, two of my little babies-Jyotishmita and Ankushmita and all my family members for constantly encouraging me during the period of this study.

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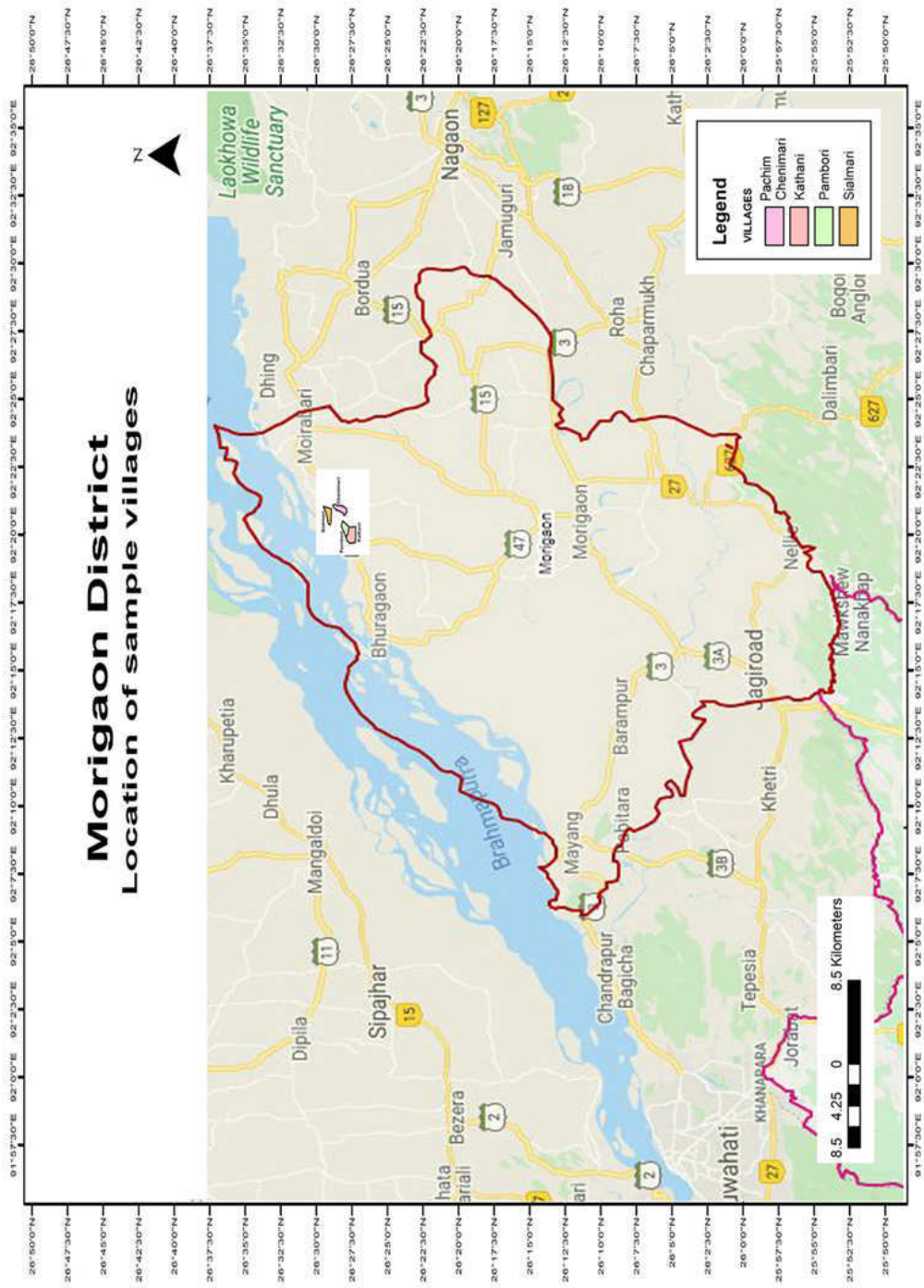
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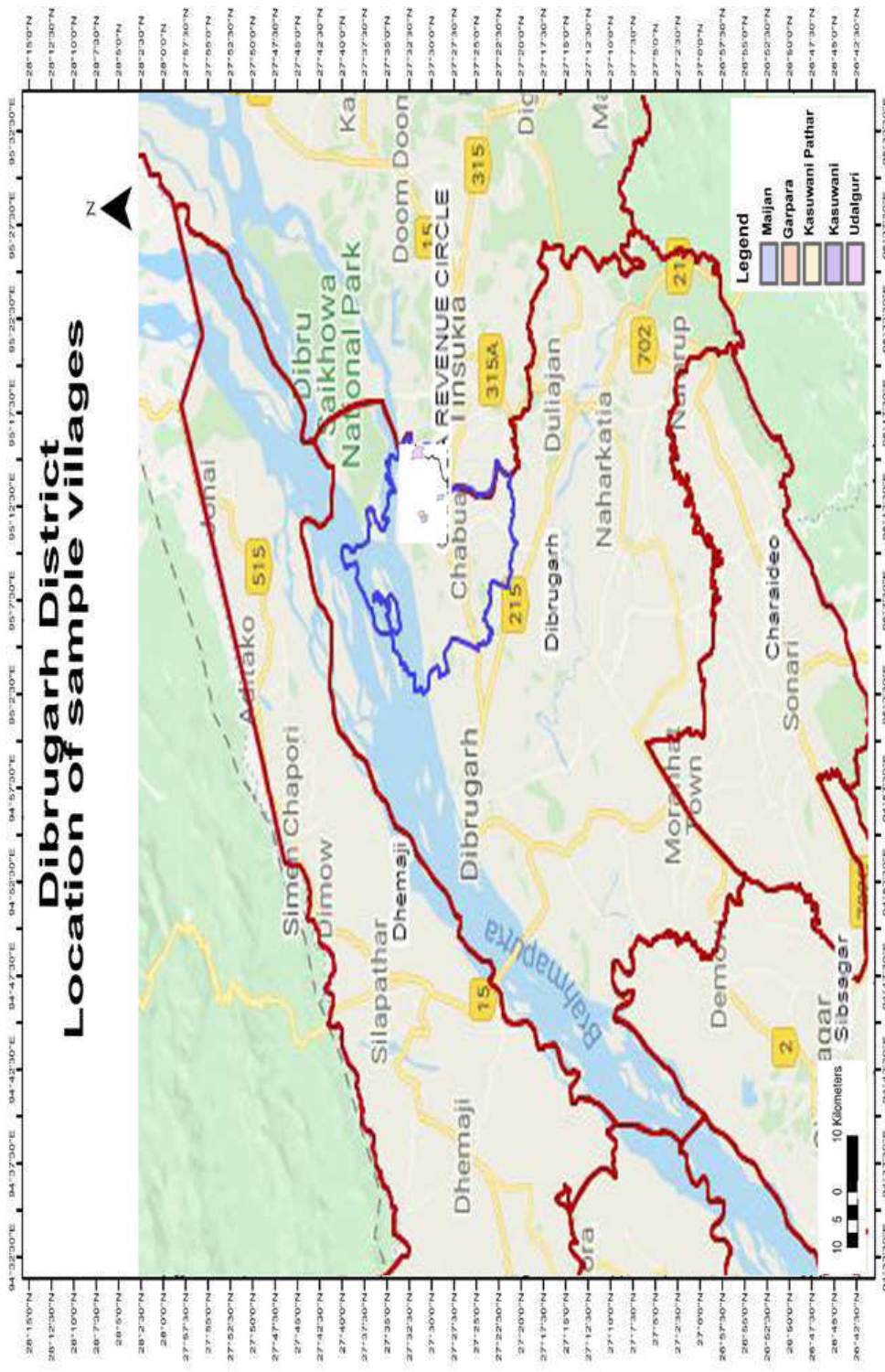
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Source: Assam Disaster Management Authority, <http://sdmassam.nic.in>



Source: Assam Disaster Management Authority, <http://sdmassam.nic.in>

GLOSSARY

Alluvial soil	:	Alluvium is loose, unconsolidated soil or sediment that has been eroded, reshaped by water in some form and re-deposited in a non-marine setting.
Amphibolites	:	Granular metamorphic rock consisting mainly of hornblende and plagioclase.
Aquifer	:	An aquifer is an underground layer of water-bearing permeable rock, rock features or unconsolidated materials (gravel, sand or silt).
Archaean period	:	It is one of the four geologic eons of earth's history, occurring 3875 to 2750 million years ago.
Bank	:	In geography, a bank is the land alongside a body of water.
Bar	:	It is a relatively long, evenly shaped piece of some solid substance, as sand, or other earth particles etc.
Beels	:	A lake-like wetland.
Biotile gneiss	:	This rock is mostly composed of creamy-white feldspar and quartz, together with dark minerals, of which the most abundant is the dark mica biotite.
Braided river or braided channel	:	It consists of a network of river channels separated by small, often temporary, islands called braid bars.
Bund	:	An embankment used especially to control flow of water.
Channel	:	In physical geography, a channel is a type of landform consisting of the outline of a path of relatively shallow and narrow body of fluid, most commonly the confine of a river, river delta or strait.

Char and chaporis	:	A char is a floating island while Chaporis are low-lying flood prone riverbanks.
Circle Office	:	Revenue Circle Office, an administrative unit.
Concave banks	:	The outer bank of a curved stream, with the center of the curve toward the channel.
Confluence	:	The juncture of two rivers, especially rivers of approximately equal width.
Deciduous	:	In reference to trees, shedding its leaves annually.
Degradation	:	Degradation refers to the lowering of a fluvial surface, such as a stream bed or floodplain, through erosional processes.
Deltaic plain	:	A deltaic plain consists of active or abandoned deltas, which are either overlapping or contiguous to one another.
Demographic	:	It is related to the study of human populations-their size, composition and distribution across space-and the process through which populations change.
Denudation	:	In geology, denudation involves the processes that cause the wearing away of the Earth's surface by moving water, by ice, by wind, and by waves, leading to a reduction in elevation and in relief of landforms and of landscapes.
Depression	:	A depression is a weather term meaning an area of low pressure, wind, cloud and usually rain.
Drainage	:	The way how a river or stream drains water, sediments and other materials during its flow.
Drenched	:	To wet through and through; soak.
Dyke	:	A long wall or embankment built to prevent flooding.

Elongated	:	It means long in relation to width, specially unusually so.
Embankment	:	A raised structure used especially to hold back water or to carry a roadway.
Ephemeral bars	:	Temporary bars, lasting for a very short period.
Evergreen	:	Having foliage that remains green and functional through more than one growing season.
Fine loams	:	Loam is soil composed of sand and smaller amount of clay. In a fine loamy type soil a loamy particle size that has 15% or more of fine sand and has 18-35% clay are found.
Flood	:	An overflow of water on normally dry ground.
Floodplain Area	:	An area of low-lying ground adjacent to a river, formed mainly of river sediments and subject to flooding.
Flood prone area:		Any land susceptible to being inundated by water from any source.
Gaon	:	Village.
Gaon Burah	:	The person who is the leader of the Assamese village or gaon. The role of the gaon burahs in Assamese gaons that are under mouzas are limited, since mouzadars take the responsibility of the gaon burah. For gaons that are far from district heads or major cities, gaon burahs still play definitive roles.
Geo bag	:	Geo-bags are called a Geotextile Sand Containers (GSC) which is a low cost, soft and reversible solution for shore protection structures or protect the devastative waves of the river.
Geology	:	It is an earth science concerned with the solid earth.

- Geomorphology** : It is the study of landforms, their processes, form and sediments at the surface of the Earth.
- Granite** : A very hard, granular, crystalline, igneous rock consisting mainly of quartz, mica, and feldspar and often used as a building stone.
- Granule** : A small compact particle of a substance.
- Gravel** : A loose aggregation of small water-worn or pounded stones.
- Ha.** : Hectare is a non-SI metric unit of area equal to a square with 100-metre sides and primarily used in at the measurement of land.
- Hillock** : A small hill or mound.
- Hollowing out** : To remove the inside of (something) or to make an empty space in (something).
- Humid** : Marked by a relatively high level of water vapour in the atmosphere.
- Hydro-geomorphic force:** A force that focuses on the interaction and linkage of hydrological processes with landforms or earth materials and the interaction of geomorphic processes with surface and subsurface water in temporal and spatial dimensions.
- Impoverishment risks:** A terminology used by Micheal M.Cernea referring a situation of homelessness, joblessness, landlessness, social and community disarticulation and associated aspects that push people to situations of more poverty.
- Incipient** : Beginning to happen or develop.
- Internally Displaced Persons (IDPs):** Persons who are forcefully displaced from their original habitat and never crossed an international border.

- Inselberg** : An isolated hill or mountain rising abruptly from a plain.
- Hornblende** : It is a complex inosilicate series of mineral. Hornblende has a hardness of 5-6, a specific gravity of 2.9-3.4 and is typically an opaque green, greenish-brown, brown or black colour.
- Kacha house** : A kind of house, where walls are made up of bamboo, mud, grass, reed, straw etc. It provides semi-permanent or temporary settlement.
- Land locked** : Almost or entirely surrounded by land.
- Lateritic soils** : Laterite is both a soil and rock type rich in iron and aluminum and is commonly considered to have formed in hot and wet tropical areas.
- Levee deposition** : Deposition of levee is a natural consequence of the flooding of meandering rivers which carry high proportions of suspended sediment in the form of fine sands, silts and muds.
- Low gradient river** : Low gradient river has wider and less rugged valleys, with a tendency for the river to meander.
- Main worker** : Those workers who had worked for the major part of the reference period, i.e. 6 month or more.
- Marginal worker** : Those workers who had not worked for the major part of the reference period i.e. less than 6 months.
- Marshy** : Marshy things are squishy, wet, and soft, like a marsh of a bog.
- Meander** : A meander is one of a series of regular sinuous curves, bends, loops, turns, or windings in the channel of a river, stream, or other watercourse.

Mesozoic	:	The Mesozoic era is an interval of geological time from about 252 to 66 million years ago.
Monadnock	:	It is an isolated rock hill, knob, ridge, or small mountain that rises abruptly from a gently sloping or virtually level surrounding plain.
Mouza	:	A revenue collection unit under Assam government.
Ojha or Bej	:	Local health consultants or Witch-doctor or ojha practicing magical tricks.
Orographic	:	Relating to mountains, especially as regards to their position and form.
Oxbow lake	:	A curved lake formed from a horseshoe bend in a river where the main stream has cut across the narrow end and no longer flows around the loop of the bend.
Patch	:	A part of something marked out from the rest by a particular characteristic.
Patta land	:	Having legal record of ownership of land.
Pegmatite	:	It is an igneous rock, formed underground, with interlocking crystals usually larger than 2.5 cm in size.
Perennial	:	Lasting or existing for a long or apparently infinite time; enduring or continually recurring.
Phyllite	:	A fine-grained metamorphic rock with a well-developed laminar structure, intermediate between state and schist.
Physiography	:	Physical geography that studies physical patterns and processes of the earth.
Piedmont soils	:	It is generally clay-like (ultisols) and moderately fertile soil.
Plateau	:	An area of fairly level high ground.

- Popular struggle** : Peoples' struggle or movement against or for any activity on important social issues.
- Pre-Cambrian period:** The Pre-Cambrian is the earliest part of the Earth's history, set before the current Phanerozoic Eon. Occurred 4,600 million years ago-541(+/-) million years ago.
- Pucca house** : Solid and permanent house built up with materials like stone, brick, cement, concrete or timber.
- Quartzite** : Quartzite is a hard, non-foliated metamorphic rock which was originally pure quartz sandstone.
- Quaternary periods** : It is the current and most recent of the three periods of the Cenozoic Era in the geological time scale. It follows the Neogene period and spans from 2.588 ± 0.005 million years ago to the present. The Quaternary Period is divided into two epochs: the Pleistocene (2.588 million years ago to 11.7 thousand years ago) and the Holocene (11.7 thousand years ago to today).
- Rain drenched** : Completely wet; soaked by rain.
- Reach** : A reach is a length of a stream, river, or arm of the sea extending up into the land, usually suggesting a straight, level, uninterrupted stretch.
- Reconstructed** : Constructed again may be after devastation or deterioration
- Rehabilitation** : Offering means to restore livelihood.
- Remnant** : A small piece or amount of something that is left from a larger original piece or amount.
- Resettlement** : Resettlement refers physical resettlement. It means that people lost land and against that government is offering land to them for resettlement.

Revetment	:	A retaining wall or a facing (as of stones, sandbags, etc. to protect an embankment.
Ridge	:	A ridge or a mountain ridge is a geographical feature consisting of a chain of mountains or hills. A ridge is a long, narrow, elevated strip of land or any raised strip or band.
Riparian	:	It is relating to or living or located on the bank of a natural watercourse. It is relating to or situated on the banks of a river. Riparian is also a person who owns land on a riverbank.
River	:	A natural flowing watercourse, usually fresh water flowing towards an ocean, sea, lake or another river.
Riverbank erosion	:	Erosion of bank land caused by the river.
Schist	:	A coarse-grained metamorphic rock which consists of layers of different minerals and can be split into thin irregular plates.
Sediment load	:	Solid particles produced by weathering and transported through a channel by stream flow.
Seismology	:	Seismology is the study of earthquakes and seismic waves on and around the earth.
Severity	:	The fact or condition of being severe.
Shale	:	Shale is a fine-grained, classic sedimentary rock, composed of mud that is a mix of flakes of clay minerals and tiny fragments (silt-sized particles of other minerals, especially quartz and calcite.
Shingle and sand bars:		Bars containing pebbles or small-to-medium-sized cobbles and sand.
Shoals	:	A shoal is a natural submerged ridge, bank, or bar that consists of, or is covered by, sand or other

		unconsolidated material, and rises from the bed of a body of water to near the surface.
Sluggish	:	Slow moving or inactive.
Social justice	:	Fair treatment by addressing the point of equity.
Spatial	:	Related to occupying or heaving the character of space.
Spurs	:	Spurs are the structures constructed on the riverbank normal to the dominant flow direction or at an angle pointing upstream or downstream.
Square kilometer	:	1 square kilometer is equal to 100 hectares (ha.). It is the SI unit of area or surface area.
Steep slopes	:	Steep slopes are legally defined as hillsides having a 15 foot, or greater, vertical rise over 100 feet of horizontal run, or 15% slope.
Straddling a river	:	If something straddles a river, it stretches across it or exists on both sides of it.
Stream	:	A stream is a body of water with surface water flowing within the bed and banks of a channel.
Sub-tropical	:	Sub-tropical climates are often characterized by hot summers and mild winters with infrequent frost.
Survival	:	The state or fact of continuing to live or exist, typically in spite of an accident, ordeal, or difficult circumstances.
Swamp	:	An area of low-lying, uncultivated ground where water collects; a bog or marsh.
Tectonic	:	It is relating to the structure of the surface of the earth and the way it is formed, changed and other earth surface features.

- Terrace** : It is a step-like landform.
- Tertiary** : Tertiary is a widely used term for the geologic period from 66 million to 2.6 million years ago. It is relating to or denoting the first period of the Cenezoic era, between the Cretaceous and Quaternary periods, and comprising the Palaeogene and Neogene sub-periods.
- Topography** : The arrangement of the natural and artificial physical features of an area.
- Tropical monsoon climate:** Tropical monsoon climates have monthly mean temperatures above 18 degree calcious in every month of the year and a dry season.
- Trough** : A channel used to convey a liquid.
- Undulating hills** : Having a wavy form or appearance.
- Veins** : A fracture in rock containing a deposit of minerals or ore and typically having an extensive course underground.
- Westerly direction** : Moving, directed, or situated toward the west. A westerly direction is to the west or towards the west.

LIST OF ACRONYMS

AASU	:	All Assam Students' Union
AATTSA	:	All Assam Tea Tribes Students' Association
AATASU	:	All Assam Tai Ahom Students Union
ADB	:	Asian Development Bank
AISF	:	All India Students Federation
AJYCP	:	Asom Jatiyatabadi Yuba Chatra Parishad
A.P.	:	Annual Patta
ASYO	:	Assam Students Youth Organization
BNBPM	:	Brihat Nadi Bandh Pratirodh Mancha
BPL	:	Below poverty line
BRGF	:	Backward Regions Grant Fund
CRPF	:	Central Reserve Police Force.
CWC	:	Central Water Commission
CWPRS	:	Central Water and Power Research Station
DRDA	:	District Rural Development Agency
DTBKPM	:	Dibrugarh Tinisukia Ban Khahoniya Protirodhi Mancha
Fa.	:	Family
GSM	:	Gono Samonnay Mancha
GSS	:	Gramin Sramik Santha
HIV/AIDS	:	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome.
H.S.	:	Higher Secondary.
H.S.L.C.	:	High School Leaving Certificate Examination

IAY	:	Indira Awaas Yojana
IHHL	:	Individual Household Latrine
KMSS	:	Krishak Mukti Sangram Samity
OCHA	:	United Nations Office for the Coordination of Humanitarian Affairs
OIL	:	Oil India Limited
SC	:	Scheduled Caste
ST	:	Scheduled Tribe
L.P.	:	Lower Primary
MGNREGA	:	Mahatma Gandhi National Rural Employment Guarantee Act
MYCS	:	Motok Yuva Chatra Sammilan
NESAC	:	North Eastern Space Applications Centre
PHC	:	Primary Health Centre
P.M.	:	Prime Minister
PMGAY	:	Pradhan Mantri Gramin Awaas Yojana
P.P.	:	Periodic Patta
PSU	:	Public Sector Undertakings
RGKPM	:	Rohmoria Gora Khahoniya Protirodhi Mancha
RLRBBPS	:	Rohmoria Lahoal Rongapara Bokdung Baan Protirodh Samity
RKBPS	:	Rohmoria Khahoniya o Baan Protirodh Samity
SABKPSS	:	Sadau Asom Baan Khahoniya Protirodh Sangram Mancha
SANDRP	:	South Asian Network on Dams, Rivers and People

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Chapter I

Introduction

This introductory chapter of our study contains three sections. *Section I* includes an introduction of our research work, statement of the problem, universe of our study and reasons behind selecting the universe. Research questions as well as objectives of our study and methodology to carry on the research work along with the theoretical landscape is the *section II* of this chapter. The concluding *section III* of this chapter covers the points of available literature review, significance and limitations of our research study.

Section-I

1.1 Introduction

Riverbank erosion is a major ecological problem that affects a large number of people in Assam. The lives and patterns of living of the people in the banks of the river Brahmaputra and its all active tributaries are adversely affected by riverbank erosion. Mainly because of the fertile soil that are suitable for agricultural production, easy access to water and easy ways of transportation, usually, people prefer to settle down in the riverbanks. Consequently, they face both its positive and adverse affects. Some rivers are vulnerable to bank erosion. Again, considering the physical characteristics, it is obvious that “Assam with its vast network of rivers is prone to natural disasters like flood and erosion” (<https://waterresources.assam.gov.in/portlets/flood-erosion-problems>). Riverbank erosion cause severe affects on lives and livelihood of the people living in its bank. Highlighting the

government records, the Assam Human Development Report, 2014 revealed “the average annual damage since 1954 has been over INR124 crore and the estimated average annual erosion rate has been 8000 hectares, which have affected lakhs of families spread over 2,534 villages”(Assam Human Development Report, 2014, p.3). Riverbank erosion resulted in the emergence of a large number of IDPs and they are forcefully displaced by the process of erosion. Actually, erosion pushes them to the situation of landlessness as well as homelessness and forced them to move to other places within the country for living as well as sustenance. Thus, we witness a huge amount of involuntary displacement due to riverbank erosion in Assam. According to United Nations High Commissioner on Human Rights, IDPs are among the most vulnerable people in the world (<https://www.unhcr.org/internally-displaced-people.html>). Regarding the riverbank erosion-induced Internally Displaced Persons (IDPs) in Assam, practically, they consist of a marginalized section of the society. And obviously they expect a responsive role from the State towards mitigating their sufferings. Considering all these issues, the present study looks at the affect of riverbank erosion, which causes involuntary displacement. Here, comes the relationship between the State and its citizens to the fore. The researcher scrutinizes this relationship through the prism of social justice and accountability of the State. Besides, the researcher evaluates the aftermath of riverbank erosion and the questions of survival, resettlement and rehabilitation of the affected persons.

1.2 Statement of the Problem

Riverbank erosion is one of the major problems of the floodplains in Assam. It is not only a problem of Assam or West-Bengal in Indian context, but it is also a serious

problem for Bangladesh in the context of South East Asia (Islam & Rashid, 2011). According to the Water Resources Department of Government of Assam, the river Brahmaputra and its tributaries since 1950 eroded away 7.40% area of the State. The annual average loss of land is nearly 8000 hectare and between the years 2001 to 2006, it affected 1,19,203 persons and a property of Rs. 22,990.79 Lakh (<https://waterresources.assam.gov.in/portlets/flood-erosion-problems>). Therefore, it is obvious that riverbank erosion is one of the serious issues for the people of Assam. It disrupts the socio-economic, geographic, community and environmental life of the affected people. It is directly affected the lives and livelihood of the people who bear the burnt of erosion, i.e. displacement. While riverbank erosion causes massive displacement of population, subsequent problems like landlessness, loss of livelihood, poverty, poor health care services and poor educational facilities carry non-traditional security threats for the IDPs. Empirically, it snatches almost all the material assets of the life, living and livelihood of the displaced persons and pushes them to *impoverishment risks* (Cernea, 2000). Throne (1992, as cited in Sarma, 2007) also says that erosion affected 600 to 700 million hectares of total land area throughout the world and pushed a large number of people to the situations of impoverishment.

Considering these issues, the present research examines the politics of survival, resettlement and rehabilitation of the riverbank erosion-induced IDPs and tries to situate State's response thereto. Riverbank erosion-induced displaced persons constitute a significant portion of the large army of IDPs in Assam. Riverbank erosion pushes them to situations of landlessness. Accordingly, that affects their livelihood and dignified socio-economic subsistence. They construct a sizeable mass

identity, which is the identity of the displaced and they have no chance to go back to their original land. They lost their land to the river. At this juncture, the role of the State more specifically in mitigating the loss of land to ensure better living and livelihood to the IDPs appears as an important aspect for discussion. Available policy measures for resettlement and rehabilitation of the riverbank erosion-induced IDPs and their execution becomes vital here. While assessing the role of the State, it is found that the State has taken up “only immediate and short term measures” to check riverbank erosion in Assam (<https://waterresources.assam.gov.in/portlets/flood-management>). Again, adequate resettlement and rehabilitation policies are not at all functioning equally in irrespective of affected areas and population. The State is offering land against the loss of homestead land of the IDPs in certain pockets. That implies answer to the point of physical resettlement to homeless IDPs. But along with homestead land, IDPs generally loss their cultivable land too. As the livelihoods of the people are mostly dependent on agriculture, now after displacement, they have also lost their avenues for livelihood. Here, the issue of rehabilitation appears in the forefront. But, this rehabilitation was kept as an untouched issue by the State machinery rather they used the term rehabilitation to address the aspect of resettlement only through its available policy measures and resources. As a result, the issues of assuring social justice and dignified living for all sections of IDPs have not attained required height in the policies and actions of the State. Considering the above discussed aspects, this research work evaluates the vulnerability of the affected persons, their adaptability and the government sponsored resettlement and rehabilitation schemes to reduce their sufferings and analyses the question of social justice and State-citizenship relationship.

At the macro level, the present research studies the problems and consequences of riverbank erosion in Assam as a whole. Then the researcher moves to the micro level and studies the Morigaon and the Dibrugarh district as both the districts situated in the South bank of the River Brahmaputra have been severely affected by erosion. Hence, the researcher carries out a comparative evaluation of vulnerability of the riverbank erosion-induced IDPs in the Morigaon district of lower Assam and the Dibrugarh district of upper Assam.

Practically, Assam has witnessed severe riverbank erosion since the great earthquake of 1950. Considerably, while Morigaon has continuously experienced riverbank erosion since 1970s, for Dibrugarh, it is a continuous phenomenon since 1950s. By examining the affects of riverbank erosion upon the lives and livelihood of the IDPs in the Morigaon and the Dibrugarh district, their survival strategy, and the resettlement and rehabilitation packages implemented by the State towards them, the researcher studies the history of riverbank erosion in both the districts. The study has taken up these two different districts, because Morigaon is an economically underdeveloped and geographically fourth smallest district of Assam, whereas the Dibrugarh district is economically affluent and geographically large in size (Employment and Livelihood Quality Index for Districts, as cited in Assam Human Development Report, 2014 and Administrative Atlas, Assam, Census of India Report, 2011). Again, Dibrugarh is one of the first sites wherein the government for the first time conducted scientific experiments to combat erosion (built embankments in mid-1950, Environment Assessment Report, ADB, 2009). As both the areas have experienced massive riverbank erosion and consequent IDPs, that is

why the present research comprehends the problem of riverbank erosion in Assam by going through a micro level comparative understanding of the two districts.

By investigating the aspects like the affect of riverbank erosion upon the lives and livelihood of the IDPs, their coping mechanisms, adaptability, livelihood strategies, compensation, resettlement as well as rehabilitation measures, conditions of the affected persons below poverty line etc. the researcher engages in a comprehensive evaluation about the aspects of democracy and its linkages with the concerned IDPs.

“Since 1990, United Nations Development Programme (UNDP) has been publishing Annual Development Reports and equates democracy with human development—the development in which people’s day to day needs and aspirations get the priority” (Dutta & Sircar, 2011, p.194). Considering this aspect, the researcher includes the term democracy to imply basic standard of life, living and livelihood to all sections of society to satisfy their minimum necessities and socio-political and economic security. Thus, democracy is an all inclusive concept and expects the State to fulfill minimum needs to all sections of citizens including the IDPs. At present, democracy is considered as a form of government that ensures people’s day to day security apart from taking care of external and internal security (Dutta & Sircar, 2011). It guarantees social justice and asks the State to provide equality and basic rights to all to maintain a reasonable standard of living. Consequently, the State has to undertake the responsibility of its citizens. Here, the role of the State appears significant in mitigating the plight of its citizens, more specifically the IDPs. Accordingly, the present research work examines the plight of the displaced persons and pursues a qualitative research on those lives whose family structure, community base and social construct have been affected by riverbank erosion. As being a

student of the discipline of political science, the researcher has confined the study to understand the plight of riverbank erosion-induced IDPs and State-citizenship relationship primarily from the perspective of political science. However, the study includes a general understanding about the socio-political and economic conditions of living of the riverbank erosion-induced IDPs to better realize their sufferings and how the State is responding towards their sufferings.

1.3 The Universe of the Study

The present study analyses the plight of riverbank erosion-induced IDPs through the prism of social justice. The researcher figures out the State's responsibility towards the river bank erosion-induced IDPs. Riverbank erosion swallows their homestead as well as agricultural land and creates threats to their livelihood and social identity. Here, the researcher evaluates the situation of non-traditional security threats faced by the riverbank erosion-induced IDPs of Assam, since the early 20th century. The present study analyses the plight of riverbank erosion-induced IDPs in Laharighat under the Morigaon and in Rohmorria under the Dibrugarh district of Assam. Spatially, Morigaon district is located on the south-western bank of the Brahmaputra river between 26° 3' 00" and 26° 30' 45" North Latitudes and 91° 58' 00" and 92° 35' 00" East Longitudes and Dibrugarh district is located in 27° 5' 00" and 27° 42' 15" North Latitudes and 94° 33' 30" and 96° 29' 30" East Longitudes. Geographically, the Morigaon and the Dibrugarh districts are at the distance of 78 kilometer (km) and 435 km respectively from Guwahati, the capital city of Assam. Because of time constraints, the study concentrates upon two villages each from both the districts. From both the districts, the researcher has taken one village each where the people experienced erosion 20-30 years ago and at present, the IDPs are trying for normal

life. The next sample village witnesses erosion in the recent past, i.e. just 6-8 years ago. People in the second village are more scattered and unstable in comparison to the former. In this regard, each district has certain peculiarities too. From the Dibrugarh district, the researcher has chosen the *Kasuwani gaon* and *Maijan gaon* from the *Phukanarkhat Gaon Panchayat* of *Rohmorja Mouza* from the *Chabua Circle* and from *Morigaon district*, the *Pambori gaon* and *Sialmari gaon* under the *Kathoni Gaon Panchayat* of the *Laharighat Mouza* from the *Laharighat Circle*. In this study, *Maijan* and *Sialmari gaon* witnessed riverbank erosion 20-30 years ago, but present situations of the people of *Maijan* are quite settled in comparison to the scattered people of *Sialmari gaon*. Again, the pictures of *Kasuwani* and *Pambori gaon* are also different. Thus, the study compares the situations of vulnerability of the affected persons in the sample villages of both the districts. The researcher comprehends the extent and impact of riverbank erosion in the proposed area and evaluates the role of the State in mitigating the sufferings of the affected persons.

1.4 Reason behind Selecting the Sample Villages

In order to understand the aftermath of riverbank erosion, the researcher has taken up the aforesaid four villages as sample. In two of the sample villages, people had witnessed erosion for more than two decades and the other two villages had described a recently eroded picture. Thus, to compare the affect of riverbank erosion in different time lines and to assess the mechanisms of survival, resettlement and rehabilitation of the affected persons, the researcher has selected the sample villages.

Section-II

1.5 Research Questions of the Study

The present study works through the following broad research questions:

- What are the vulnerabilities and consequences of riverbank erosion on lives and livelihood of the IDPs?
- What are the differences in the vulnerabilities and consequences of erosion in the sample areas of both the districts?
- How is the State addressing the plight of the riverbank erosion–induced IDPs, their issues of resettlement and rehabilitation within the framework of social justice?

Hence, the study examines the patterns and conditions of living and subsistence of the affected people in the four sample villages of Morigaon and Dibrugarh districts of Assam. The conditions of vulnerability of the IDPs and their entitlement are the main areas of discussion here. At this crucial point, the researcher engages in estimating the responsibility of the State on one hand and examines the State-Citizenship relationship on the other.

1.6 Objectives of the Study

The present research study develops a comparative understanding about the patterns of living and livelihood of the erosion affected people of the Morigaon and the Dibrugarh districts of Assam. By examining the compensatory mechanisms of the State towards mitigating the plight of the IDPs, the researcher endeavours to situate the State-citizenship relationship to address the sufferings of the IDPs. Moreover, the present research examines not only the measures of resettlement, rehabilitation

and related compensations obtained by the affected persons but also evaluates the day to day assistance and security aspects to be ensured by democracy and questions the State-citizenship relationship in the context of the concerned IDPs. It looks for providing reasonable explanations on the socio-economic patterns of living of the IDPs, their livelihood and adaptability.

Thus, the broad objectives of the research are:

- To study and understand the extent and magnitude of the problem of riverbank erosion-induced IDPs in Assam in general and the selected two districts in particular in terms of land eroded.
- To examine the multi-dimensional consequences of riverbank erosion on the lives and livelihood of the people of the sample villages of Morigaon and Dibrugarh district.
- To study the resettlement and rehabilitation schemes taken up by the State to mitigate the problems of the affected people in both the districts.
- To study peoples' movement, available policy measures and compensatory mechanisms taken up by the State to check the problem of riverbank erosion and associated IDPs in both the sample areas and analyse the State-citizen relationship within the framework of social justice and entitlement.

1.7 Theoretical Landscape

The present research work develops an extensive study on the State-citizenship relationship from the prism of social justice. The researcher extends a theoretical interrelationship to explain the strategy of survival and problems of resettlement as well as rehabilitation of the riverbank erosion-induced IDPs as they are under

substantial impoverishment risks. Taking into account all these prospects, the present study uses the Rawlsian welfarist-egalitarian concept of justice (Abbas and Kumar, 2012) to understand the worth of the programmes of the State in mitigating the problems of the affected persons. It is significant here to mention that social justice is merely a way to fulfill minimum requirements to all sections of society to retain a standard living. Establishing equality and basic rights for all are the elements of social justice. All human beings are entitled to them. Actually, “The issue of social justice is associated with social equality and social rights. No person should be deprived of those social conditions which are essential for his development” (Mahajan, 1988, p.407). In this similar view, the international community observes the World day of Social Justice and extends their efforts to eradicate poverty, promotion of full employment and decent work, gender equity and access to social well-being and justice for all (<https://www.un.org/en/observances/social-justice-day>). But, in reality, such frameworks generally fail to address the problems of the IDPs. The IDPs represent “an excluded and marginalized social front” (Hussain, 2006, p.391). In this case, riverbank erosion-induced displaced persons lost their basic minimum avenues for living as they are landless and land is their main source of life, living and livelihood. Riverbank erosion-induced displacement disturbs their home and family construct. Their citizenship rights are denied as they are vulnerable in terms of shelter, livelihood and living conditions. It is notable here that, “when legal, economic and political power and privileges are distributed differently amongst different sections of the society according to social differentiation, social justice is founding lacking” (Abbas & Kumar, 2012, p.387). Therefore, it is the responsibility of the State to mitigate the

plight of these IDPs. Again, constitutionally, the State must confer pre-requisites to ensure right to life to all its citizens. Right to life, according to the Article 21 of the Constitution of India, is practically an all-encompassing concept assuring the right to live with dignity. That implies right to livelihood, shelter, basic educational and medical facilities, right to social security and protection of family (National Council of Educational Research and Training (NCERT), (n.d.) & (Jain, 2015). Thus, the State must ensure basic standard of living for its citizens. Significantly, the impoverished riverbank erosion-induced IDPs constitute a huge portion of marginalized citizens. “They constitute the most pauperized community in Assam’s plains. In the absence of proper resettlement and rehabilitation policy, most of them have experienced multiple displacements” (Hussain, 2006, pp.391-393). They ask for special attention from the State. The concept of compensatory justice appears as a paradigm here to measure the role played by the State towards the affected persons. Theoretically, land rules of Assam (Assam Land (Requisition and Acquisition) Rules, 1964) permits the concerned authority to grant land to riverbank erosion-induced IDPs, but practically such affected persons hardly secure land and other related facilities like Indira Awaas Yojana (IAY) housing scheme, facilities of Below Poverty Line (BPL) cards and Job Cards under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). These observations reflect a huge gap between theory and practice in addressing the plight of the affected. The study, moreover, assesses the responses of the State on these issues through the theoretical framework of social justice.

1.7.1 Indicators to Assess Social Justice

Quantum of beneficiaries of Indira Awaas Yojana and Pradhan Mantri Gramin Awaas Yojana (PMGAY) housing scheme, efficacy of public distribution system, government schemes of resettlement and rehabilitation, i.e. distribution of amount of land, roofing sheets, monetary assistance and others, effectiveness of BPL Card, Job Card, sanitation and drinking water facilities, minimum health care facilities and minimum level of education, rate of school going students are some of the indicators taken up by the researcher to understand the plight of the affected persons and corresponding responses of the State.

1.8 Methodology of the Study

The present research is based on both the theoretical as well as practical understanding of the concerned subject-matter. The theoretical framework related to the study is backed primarily by the theories of social justice. The study includes both the primary as well as secondary sources of data. Secondary data comprises of government reports, census data, relevant books, articles, and related published and unpublished works. They are collected from the official sources, i.e. the reports from the Office of the Deputy Commissioner of Morigaon and the Dibrugarh districts of Assam, reports from concerned Revenue Circle Offices and Census and Gazettes of the State government.

Primary data comprises of the data collected through a detailed interview schedule, structured and unstructured interview and observation. Nevertheless, the first hand data presented in this study distinctly tell about the land settlement and the issues of displacement caused by riverbank erosion and the sufferings of the affected persons.

Considering the information on land settlement, compensation and displacement, the government offices, circulars, reports are the main sources. But practically in the issue of riverbank erosion and related IDPs, “the valuable official data are kept in absolute disorder” (Hussain, 2008, p.22). Therefore, it is difficult for the researcher to orderly arrange them. Besides, in certain cases, the researcher includes data without having adequate date, place, references and uses the category of Not Available (N/A).

For analysing the practical situation, the researcher examines the media reports and some interactions with aged, influential persons of the sample area. It helps the researcher to understand the whole situation and provides more insight on articulation as well as presentation of the research findings.

The method of developing the present research is primarily marked by qualitative analysis of the situation concerned. While interpreting the data collected from different sources, sometimes, the study uses tabular formats. Displacement and sufferings of the IDPs are qualitatively analysed and corresponding primary findings are also taken into account to explore the socio-economic facts. The researcher applies narratives to explain the results and discussions of the study as it will enable to gain actual scenario in a holistic way (Baden & Niekerk, 2007).

The present study engages in a comparative analysis of the plight of the riverbank erosion-induced IDPs as well as State’s response to address their plight in Morigaon and Dibrugarh districts of Assam. The study has chosen the districts to compare and comprehend the problem of riverbank erosion-induced IDPs and the subsequent State’s response because situated in the South bank of the river Brahmaputra both

the districts are facing severe riverbank erosion along with the following similarities and differences. Geographically and economically Morigaon is less considerable than Dibrugarh (Chapter-1, Point-1.2). Peoples' movement to attract attention from the authority to address the plight of the IDPs and demands for checking riverbank erosion are negligible in Morigaon but very much active, continuous and prolong in Dibrugarh district (Chapter-5, point-5.2). State's response towards IDPs in resettlement and rehabilitation schemes also shows considerable differences (Chapter-4, Point-4.). But the numbers of IDPs are much higher in Morigaon district than Dibrugarh. As the issue is directly affected the livelihood opportunities of the victims, disturb their socio-economic life and village structures, thus, the impact on their lives are comparatively analysed in our research work to have a substantive understanding about the State-citizenship relationship and realization of social justice for the IDPs. It is noteworthy that the present study on understanding the sufferings of the IDPs as well as corresponding State's response is conducted purely from the perspective of the discipline of political science.

The primary research work on the four sample villages is based on interaction with all the affected families. It comprises of all the 211 affected families of the four sample villages. The study has undertaken the views of the office bearers of the concerned *Gaon Panchayats*, *Rohmorja Gora Khahoniya Protirodhi Sangram Manch* (Dibrugarh), *Laharighat Gora Khahoniya Protirodh Samity*, (Morigaon) and concerned Circle Officers and officials of the Water Resources Department of the Sample districts.

Section-III

1.9 Review of the Available Literature

It is the background from where every new study grows. Therefore, it is the core of every research work for its enrichment. So, the present research work goes through the review of the existing literature to internalize the problem of riverbank erosion. The study, therefore, is conducted on the basis of the following literature which provided a background analysis and over all understanding of the research problem. Considering the universe of study, the literature review section of this research study is arranged on international, national and local level works.

International level

Haque and Zaman (1989) argues that future of the poor and riverbank erosion-induced displaced people of Bangladesh lies in “proper use of new land and relocation of the displaces in the newly emerged chars” (p.312). Authors firmly opine “that local peasant organizations should be involved and be allowed to play an important role in any implementation of char land reform and settlement policies at the village level” (p.312).

United Nations Office for the Coordination of Humanitarian affairs (OCHA, 1999) briefly describes the significance and prospects of the UN’s Guiding Principles on Internal Displacement. These Guiding Principles reveal the important role to be played by the international as well as national authorities, non-state actors and non-governmental organizations for assuring protection and development of the IDPs. They highlight that the IDPs “have the right to be protected against arbitrary displacement, have rights to reside in safety and dignity during displacement, and

have the right to safe return or resettlement and reintegration” (OCHA, 1999, p. 1). It explains the guiding principles, beginning with general principles and then identifying which principles apply to specific needs that arise in the field.

Cernea (2000) identifies different manifestations of displacement and tends to highlight the idea of social justice. He analyses the threat to social justice leading to growing impoverishment risks and necessary improvement in current resettlement practices to redress such risks. He proposes a risk and reconstruction oriented framework for resettlement operations and against some chronic flaws in the policies and methodologies for planning and financing resettlements. Besides, he recommends necessary improvements in policy and in mainstream resettlement practices. He highlights the issue of displacement and risks related to the lives of displaced persons in the form of landlessness, joblessness, homelessness, marginalization, food insecurity, increased morbidity, loss of access to common property resources and community disarticulation and all these lead to the problem of impoverishment risks to the lives of affected people.

Weiss (2003) studies basically the consequences of the IDPs after a decade of the first mandate for the Representative of Secretary General on IDPs. Interestingly, the author explains that IDPs as a category has no institutional sponsored or agreed international legal framework unlike Refugees. However, there is a gradual increase of international awareness and advocacy to bring IDPs to the mainstream debate. The country focus is one such way of advocacy by the representatives with increased visibility of the issue and the importance attached to it. The recent development in the context is seen with the range of the comparative analysis across cases to non-state actors and related agencies.

Phuong (2005) explains that with the increasing number of the IDP, some of the most urgent human rights and humanitarian problems of our time appears as a threat to the concept of sovereignty and intervention. It is a global problem although higher in Sub-Saharan Africa, the Middle East, the former Yugoslavia and Republic of the former Soviet Union. The author explores that IDPs are the people who had fled away from their homes, but were not refugees. Because, IDPs were fled within the border of the country, the available protective measures to them are also different to that of the refugees. He provides a detailed observation about United Nations programmes as well as efforts for protection and assistance to the IDPs.

Das (2005) describes the plight of homelessness in India, specially in cases of Kashmir, Gujarat, West Bengal and North East India. While analysing different cases of IDPs in India and in South Asia, he develops a typology of internal displacement related to development-related displacement, ethnicity-related displacement, border-related displacement, externally-induced displacement and potentially displaced persons (as cited in P. Banarjee, S. Choudhury & S.K. Das). While discussing the conditions and patterns of displacement in Bangladesh, Guhathakurta and Begum (as cited in P. Banarjee, S. Choudhury & S.K. Das, 2005) have also identified five categories such as internal displacement due to riverbank erosion, armed conflict, post-election violence and religious minorities, economic displacement, forced eviction by the State.

Okereke (2007) explains that the ideas of justice are now a very prominent feature of discussions on environmental sustainability (p. 725). Again, he expresses that the struggle to secure intra-generational equity in the context of global environmental

regimes can be conceived as a counter hegemonic project driven mainly by the developing countries.

Islam and Rashid (2011) opine that “environmental refugees are one of the most burning issues throughout the world” (p.4) in the contemporary times. As a riverine country, Bangladesh is “suffering from acute riverbank erosion” (p.4) and that compels millions of population displacements. The authors tell that “283 locations, 85 towns and growth centers along with 2400 kilometers of riverbank line in Bangladesh are vulnerable to erosion” (p.4). The Padma, the Jamuna and the Meghna are the major rivers and they “erode several thousand hectares of floodplain making thousands of people landless and homeless every year” (p.4). Displacement pushes them to situations of marginalization in terms of causing problems in livelihood and earning methods, spatial and psychological hurdles. Again, the study figures out that “forty million homeless people in Bangladesh are living floating lives” (p.4). The study carries out field survey on Chapai Nawabganj and Rajshahi districts and reveals that there are no specific policies to rehabilitate the erosion affected people and it is high time to take necessary actions to stop such forceful displacement and arrange livelihood management schemes for the victims.

Nath, Naznin and Alak (2013) opine that mainly due to alluvial land and regular shifting of river channels, Bangladesh is often witnessed riverbank erosion. They studied the trends of riverbank erosion at Chandpur district and explored that for a long time this area has been suffering with the problem of erosion and shifting characteristics of Meghna River. Besides, the study reveals that records of “last thirty years erosion rate was higher in the decade of 1990 to 2002 than other two

decades and about 3517 sq. meter area was eroded. But in the recent interpretation results shows deposition is higher than erosion” (p. 454).

Muguruza and Garcia (2017) highlight the situation of IDPs as a vulnerable group and the limitations of the humanitarian actions in preventing and resolving displacement. They express the need of long-lasting answers by mitigating the hurdles in the way of securing human rights, humanitarian development, reconstruction and peace building for internal displacement. They urge for ensuring a human security approach for the IDPs. Again, analysing the international status of IDPs and their vulnerability, authors explore the fact that the global protection system of contemporary times is facing the main challenge of changing their status from status to needs. The present liberal peace building mechanisms should consider the complexity of transition process; that is the needs and interests of the IDPs.

Bhuiyan, Islam and Azam (2017) have evaluated the riverbank erosion hazard among rural household along the river Padma of Bangladesh. They explore that in comparison to the right bank, left bank “was more vulnerable to erosion” (p.1). Loss of land and infrastructure was also high. Accordingly, it changed the cropping pattern of the agricultural land and human settlement. Besides, the frequent changes of the “farmer’s livelihood generates social crisis” (p.13). All these aspects show that riverbank erosion is one of the most hazardous processes in the study area and it has caused long term affect on lives and livelihood of the affected people.

National Level

Lama (2000) empirically figures out the Indian scenario of different types of IDPs and attempts to identify the institutional level responses, its consequences and future scenario. He broadly categorizes four types of IDPs i.e. 1. Displacement due to

occurrence of political causes including secessionist movements, for example, Naga movement, Kashmir issue etc. 2. Identity based autonomy movements, for example, movement for Bodo Autonomous Council 3. Localized violence, for example, caste disputes in Bihar, Uttar Pradesh etc. 4. Environmental and development-induced displacement, for example, Hydro Electrical Dam projects, natural disasters etc. Besides, he provides a generalized understanding about all these four types of displacement and available institutional level responses and its feasibility to address the sufferings of the IDPs.

Dutta (2001) initiates an overall discussion about the geography, society and economy of the North East specially in the Brahmaputra valley. He opines that the growing “intensity of floods, greater degradation of river banks endangering many important townships, an annual scourge which leaves behind a trail of devastation, has created a moribund scenario which does not augur well for the future of the Brahmaputra valley” (pp. 231-232). Considering the feasibility of activities of the Flood Control Department, he writes that the main activities are “boulder protection, solid stone spurs, timber pile spurs, river revetment, marginal embankments and other short term devices at spots such as Dibrugarh, Palasbari, Mukalmua, Goalpara, Guwahati etc. Such activities, far from solving the problem, create new ecological ones” (p. 225).

Bharati (2004) studies the cultural, social, economic and commercial significance of the rivers in India. He analyses the river streams in India and identifies “the main problems during the monsoon are of floods, drainage of water, obstruction and erosion of embankments”. Considering the Brahmaputra region, he explores that

“because of heavy deposits in the rivers also, erosion of riverbanks has taken place” (p. 156).

Bandyopadhyay, Ghosh and Dutta (2006) examine the problems and prospects of riverbank erosion in West-Bengal, particularly in the districts of Malda, Murshidabad and Coach-Behar. While conducting the field-survey, they have located the socio-economic problems of the affected people specially affected women and their struggle for living. According to them women in the areas affected by erosion, as in every disaster caused by human beings or nature, are suffering from double disadvantages because of their status as members of a displaced or threatened to be displaced community as well as their gender status.

While examining the majority of IDPs in North East India, Hussain (2006) observes that they “are the victims of environmental degradation, skewed development processes and ethnic conflicts. Though they are citizens of the country in paper but empirically they are refugees, and their exact numbers are still to be estimated” (p. 391). Again, Hussain (2006) opines that they are in deplorable conditions in the camps and authority failed to secure guarantee to their dignified life and living standards.

Hussain and Phanjoubam (2007) carried on an in depth analysis about the conflict-induced, development-induced and natural disaster or environment-induced internally displaced persons of North-East India, particularly of Assam and Manipur. In Assam, a large number of people are accommodating in the state sponsored relief camps for decades long and more. But they are often denied from proper relief, care, assistance and protection. Their issues of return, resettlement and rehabilitation have still to be mitigated. Manipur also witnessed four main ethnic feuds, specially,

1990s: Kuki-Naga clashes; 1993: Meitei-Pangal clashes; 1997: Kuki-Paite clashes; 2001: NSCN (IM) ceasefire extension trouble; 2006: Hmar displacement because of underground clashes and harassment. Authors again report that actual information about the accurate numbers of IDPs is still under ambiguity. These IDPs faced immense losses in life sustaining resources including social networks, neighbours and access to common property resources.

Again, Hussain (2008) explores the fact that economic development brings qualitative changes and stability in political and economic lives of various communities and simultaneously degrades socio-economic and cultural lives of many marginalized social groups of the same society. He proves development as “bias and unequal in its manifestations” (p. 15).

Mukhopadhyay, Rahim and Sarkar (2008) examine various scenes of river bank erosion in both the Gangetic and Brahmaputra delta. Sarkar and Rahim (2008 as cited in Mukhopadhyay et.al.) point out that in Indian context; riverbank erosion is one of the most common problems of alluvial plains of low land areas and that causes a huge loss. “The erosion will result loss of land or property and endangered people who live near the river. The existing riverbank erosion control structures are usually expensive, massive and not compatible with environment and aesthetic” (p. 107).

Sammadar (2009) examines the concepts of social justice, environmental justice, and its related aspects on global environmental concern. He opines that “while we can always say that there is a general regime of justice, the local acts itself out at times violently, the local perceptions of in/justice may be modeled spatially precisely along the line of distancing from the metropolitan” (p. 12).

Mandal (2009) carries on a detailed study about the conflict-induced internally displaced persons in Kashmir, Northeast and in several States of central India. It reveals that the issues of displacement caused by insurgency and retaliatory operations by security forces are major factors of displacement of common people. People from the conflicting zones forcefully displaced as they are easy targets of militants. Thus, they require appropriate response from the authority to carry on normal lives because they lost their home, property and almost impoverished in due course as they have immense uncertainty to get back to their homes for several years. But in reality, the national responses towards these people are ad-hoc and largely insufficient.

Basu (2010) starts with exploring the background behind the increasing numbers of IDPs in South East Asia and more particularly in India. He reveals the typology of available IDPs in India and comprehensively talked about the five types namely, development related, ethnicity related, border related, externally induced and potentially displaced. The available policy measures e.g. the National Policy of Rehabilitation and Resettlement, role of National Human Rights Commission, works of Mahanirban Calcutta Research Group and the comparative vulnerabilities of the affected sections were also deeply studied in the paper.

Centre for Social Justice (2013) along with collective efforts of organizations and individuals from five States of India viz., Assam, Andhra Pradesh, Jammu & Kashmir, Gujarat and Orissa displayed the existence of a set of internally displaced persons who are disowned by their own State Government. The study follows a socio-legal approach and talks about a number of the camps. Many organizations in India are struggling with situations of internal displacement as it represents the underbelly of the Nation. Internal displacement due to violent conflict is different

from displacement due to large infrastructure projects, land alienation or setting up of industrial zones. The former is largely in the domain of political and civil rights, the latter is in the domain of socio- economic rights. Right to life and liberty of IDPs are unaddressed. The study thus, expresses the sufferings of the affected and negligence of the authority to mitigate them.

Chatterjee and Mistri (2013) argue that river bank erosion has emerged to be one of the harsh environmental problems in India. The rivers Ganges, Son, Yamuna, the Brahmaputra, Chambal and Mahi, all are causing massive bank erosion. Shantipur Block, Nadia District, West Bengal, is among the worst victims of erosion of the river Bhagirathi-Hooghly and caused immense displacement and loss of livestock and property. The authors have studied the impact of erosion on the socio economic lives of the poor villagers, their frequency of displacement, patterns of rehabilitation, their perception about the causes of erosion and the way they continuously adapting themselves with the hurdles.

Sarma and Agarwal (n.d.) reveals that almost half of the IDPs in India are tribals and common property resources play a great role in their sustenance. But mostly the tribal IDPs lost both their private and common property. It puts them in a most deplorable stage and they had no other option than to looking at the State for assuring their living and livelihood. But it is far from reality. Authors express the fact that the Rehabilitation Bill, 2007 did not accommodate Common Resources as a part of compensation. Again, there were absence of specific policies for the Conflict-induced IDPs and they are in worst situation than that of others.

Ghosh and Sahu (2019) have selected 19 erosion affected study units of the banks of the Ganga-Bhagirathi river in the Jangipur sub-division of Murshidabad district,

West Bengal and study about the fact that whether population displacement due to riverbank erosion has any impact on education of the erosion victims of the developing countries or not. Accordingly, the authors opine that “the frequency of population displacement due to bank erosion and percentage of child labour are positively and significantly correlated” (p.103). Again,

A low mean year of schooling has been observed in almost all selected study units. The result of multiple linear regression analysis shows that riverbank erosion has an adverse impact on the education of the people living along the riverbanks (p.103).

Local level

Sarma (2007) examines the causes of riverbank erosion in Morigaon District of Assam. He incorporates government records of amount of land erosion and population affected and resettlement and rehabilitation packages to address the issue. Through a detailed field study, he evaluates the impact of riverbank erosion, changes in land use, human settlement and cropping patterns in Morigaon district after and before 1989.

Islam (2008) admits that “every year thousands of people are displaced in the plains of Assam as victims of perennial flood and subsequent riverbank erosion” (p. 79). She shows that a total of 242 villages and 16,905 affected families of riverbank erosion in 1990 from seven districts of Assam. She again writes that in Dibrugarh district a total of 132 families were affected by riverbank erosion and were in three relief camps. According to Islam (2008),

The government has failed to provide any data relating to rehabilitation of the displaced people. It is very difficult to fix the quantum of these Internally Displaced Persons as they are not visible. Deprived of their homestead and cultivable land, they migrate to nearby cities and towns. There is no record of

their occupational diversity. It is only obvious that they have been added to the large army of the already existing poor, landless and marginal peasants. (p.83)

Therefore, displacement has forced people “to be scattered, voiceless and unorganized” (p. 83).

While addressing the problem of riverbank erosion-induced internal displacement in Nagaon, Morigaon, Barpeta, Dhubri and Goalpara districts, Jana (2008) has explored that the “population displacement is problematic because almost the entire population of the erosion-affected victims belongs to a community that has been a potential fuel for creating xenophobia in Assam, particularly since the days of the Assam movement” (Jana, 2008, p. 107).

Narzary (2009) figures out the number of tribal IDPs in lower Assam, specially in the current BTAD area caused by the ethnic conflict between Santhals and Boro’s during the years 1996 and 1998. Their economic hardships, lack of humanitarian assistance in relief camps, their livelihood crisis, impoverishment risks, health hazards were the prime focus of his study. He carries out primary survey in the relief camps of Kokrajhar district of Assam and adopted Uni-variate, bi-variate and multi-variate statistical techniques to draw meaningful conclusions.

Sharma, Johnson, Hutton and Clark (2010) have assessed the bank erosion borne risks and vulnerability in the Brahmaputra river basin. They conceptualize risk in the context of socio-economic vulnerability and the potential for exposure to hazard. The hazard posed by unabated bank erosion can be analysed with the help of satellite imagery based data and through adoption of Plan Form Index along with its threshold values developed for the Brahmaputra. Examining the river Brahmaputra, the study reveals that “land loss to erosion is depicting a significantly rising trend

which has contributed to the impoverishment of the riverine population. The attendant uncertainties of climate change on hydrological and hydraulic river behaviour may exacerbate the channel instability” (p. 211).

Talukdar (2011) has undertaken general perspectives, environmental perspectives and issues of flood hazard mitigation especially in Barpeta district of Assam. He studies the flow characteristics of four rivers namely Manas, Beki, Pahumara and Kaldia and flood affects on water quality, soil quality, human lives and socio-economic losses in the district. Besides, he carries on a detailed study on the measures adopted for mitigating flood and probable strategies to be adopted to attain the end. He points out that the structural measures like construction of embankments, which is mostly adopted in the district, are creating additional problems in some areas. Breaches often occur in the embankments during flood and create sudden havoc. He suggests for increasing the number of earthen platforms, so that more people can take shelter in sudden floods and ensuring pure drinking water for the affected people to prevent water borne diseases.

Lahiri and Borgohain (2011) have studied the issue of river-borne erosion in Rohmoria. They have examined the intensity and characteristics of erosion in Rohmoria and how popular as well as peaceful agitation’s passing through different stages have successfully get attention from the government in combating the problem of erosion. They focus on popular resistance that have used oil blockade as an important instrument to draw utmost consideration from the government. But the results indicate that State’s responses are more or less ad hoc and conveys temporary measures from time to time to lift the oil blockade rather than having the intention to

mitigate the problem of erosion. Moreover, the study brings forth an evaluation about the success and failure of popular resistance in Rohmoria.

Borgohain (2011) writes that erosion was severe in early 70's in the Rohmoria area. She opines that peoples' agitation in Rohmoria is significant, prolong and passed through several stages. People of Rohmoria started with peaceful mobs and later attained a political character. Peoples' movement used oil blockade to draw government attention. Blockade and peoples' resistance continued more than a decade. Though, it is in more active in certain points and sometimes less. The author offers a comprehensive analysis of all the phases of social movements and said that Oil India Limited implemented some anti-erosion pilot projects with mixed results. But the results are far from satisfaction, rather minimal and ad hoc. Authority had undertaken temporary measures to lift the oil blockade instead of positive intensions to solve the problem of erosion permanently.

Sarma and Acharjee (2012) in their study give an idea of the graveness of the erosion problem using spatial data and geomorphic evidences and its interrelation with neotectonics fault. According to them,

The Brahmaputra River was 6 km away from Rohmoria in 1916, but by eroding its south bank continuously it reached this place in 1996. The rate of bank erosion in km^2 /year were highest (2.731) during 1983-1996 and lowest (0.220) during 2001-2007 and 0.645 in the present years during 2007-2009. (p.33)

Mili, Acharjee and Konwar (2013) point out various hydro-meteorological and topographical characteristics as the factors behind severe flood and riverbank erosion in the Golaghat district of Assam. With an extensive field study the authors highlight that losing residential and agricultural land are the burning issues. Again,

geographical factors, soil property and actions taken by the local people in different locations determined the extent of damage. The maximum use of the land, natural and water resources and their proper management and control are of vital for bringing sustainable development in the district. They focus on the overall socio-economic impact of the river bank erosion and flood on the population in the areas near the river Dhansiri.

Goswami (2013) deals with the natural and man-made causes responsible for flood, erosion and other calamity leading to displacement of a significant percentage of population from the Dikrong valley in Assam. He analyses the impact of Ranganadi hydropower project on the demography and society of the valley. In this study, the researcher considers the pattern of environmental degradation, its impact on life of the people, measures already taken and proposed to be taken by the state machinery and other agencies to mitigate the problem. He admits that,

With little support from the state agencies and hardly any concrete measures of protection and prevention of flood and erosion, the villagers have resorted to invoking deities of various faith. The state responses to problem solution being insensitive and in most cases nil, the community measures involved surrender to fate. (p.144)

Das, Haldar, Gupta and Sen (2014) try to understand the problem of river bank erosion-induced human displacement through a literature survey. They explore that overall scenario of riverbank erosion is very miserable. The displaced people are in different forms of socio-economic insecurities. These insecurities lead to deprivation, vulnerability and push those families to more impoverishment situations. Literature survey thus, opens up two basic dimensions. First, more scientific study on the impact of human intervention is required and secondly need

of analysing the extent of tolerable human intervention without disturbing the natural dynamic equilibrium of the rivers. Moreover, there is rising pressure on the rivers to obtain more and more benefits.

Nayak and Panda (2016) have also studied the nature and dynamics of the impact of the river Brahmaputra on the socio-economic life of the people of Assam. They examine three districts namely Dhubri, Kamrup (Metro) and Dibrugarh. The study argues that the socio-economic structure of the people of the three areas is heavily founded on the existence and flow of the river Brahmaputra. Important traditional economic activities like agriculture, fishing and inland communications have greatly been depended on this river and the riverine climate. The study declares that “on an average a family in surveyed villages lost an asset worth Rs. 60,533 in the year 2014-15 due to floods” (p.50). Although, certain measures are taken to minimize the losses of life and property of the people in the form of specially embankments, yet it is hardly satisfactory. Thus, the authors admit the need of environmentally, economically, socially, culturally sustainable measures to uphold the socio-economic life standards of the affected.

Chetia (n.d.) initiates a discussion on defining IDPs and their global, national as well as State level figures e.g of Assam particularly to internalize the depth of the issue. Author have addressed the question of the human security status of disaster-displaced citizens due to riverbank erosion in Assam and how that was re-shaped by citizenship acts on part of the disaster-displaced citizens and vice-versa. Accordingly, she evaluates the available policy measures for these IDPs, their issues of human security, political security, and citizenship rights in Assam and tries to identify the lacunas in this regard.

Khanom (2017) examines the fluvio-geomorphic processes of channel braiding and charland formation in the lower Brahmaputra river reach in Assam. Detailed study on the charland dynamics, major fluvio-geomorphic hazards and their cause-affect analysis are also carries on in her study. She highlights that the north and south bank of the whole Brahmaputra reach has been suffering from heavy erosion rate and that was higher than the deposition rate between the periods 1969 to 2010. She writes that,

The downstream reach suffers from erosion at the rate of 781.8 acre/year, the middlestream reach at the rate of 781.8 acre/year and upstream reach at the rate of 376.8 acre/year, accounting for an average erosion rate of 19404.9 acre/year over the entire period of 41 years and entire river reach. (p.183)

Dekaraja (2017) asserts that riverbank erosion is an important cause of both short term and long term population migration. She expresses that the river Brahmaputra “has eroded about 59.5 million hectares of total land from 1971 to 2009. Severe erosion has displaced about 78 thousand families. The eroded area in 2014 was approximately 0.16 percent of the total area of Assam” (p. 16). Again, looking at the affect on Morigaon district, the study incorporates that “Morigaon district lost a total of 158.76 hectares with a total of 12,680 families as per the Revenue and Disaster Management Deptt, Govt. of Assam, 2014” (p. 15).

Hazarika (2017) analyses the vulnerability of water flows, sediment flows and their relationship with basin and channel parameters. She studies the pattern and processes of channel changes of the Noa and Mongoldoi rivers at spatio-temporal scale. She identifies the major geomorphic hazards of the river system and has assessed their causes and impacts on the fluvial environment and socio-economic life of the inhabitants. The study evaluates the causes of genesis of the geomorphic

hazards and suggests a number of strategies for their management. She opines that “the entire basin can be divided into five geomorphic units extending from south to north” (p.197). The impacts of flood and erosion hazards on the people of the basin are seen “mostly on the occupational and place of residential changes either permanently or temporarily” (p.199). She again admits that,

Institutional supports towards flood and erosion hazards management in the basin include flood control, anti-erosion measures, emergency operation, land improvement, agriculture and rural development measures. Among all the institutional supports towards flood and erosion control, the Mangaldoi channel diversion done by the public in the 1977 has been found to be the most beneficial measure to reduce the flood and erosion hazards in lower part of the river system. (p.200)

Mazumdar (2020) assesses the degree of vulnerability of different locations of Brahmaputra River Bank in Lower Assam Region by developing predicting models on the basis of stream bank characteristics and geo-technical properties of riverbank soil. Again, he suggests pin pointed precautionary and anti-erosive measures in terms of degree of expected erosion vulnerability. He selects sixteen locations and six models to assess the degree of vulnerability of riverbank erosion to prepare a detail erosion hazard map of a riverbank with a suitable scale for identifying any locations in terms of probable erosion hazard.

Other than riverbank erosion, a number of notable empirical studies on development project-induced displacement and available resettlement and rehabilitation policy are conducted by another set of scholars like Walter Fernandes and Gita Bharali both at national as well as local level.

Bharali (2005) studies about development induced-displacement, more specially of the proposed Pagladia Dam Project and its affects on the tribal ‘Bodo population’.

She opines that, “though development projects are important for the progress of the nation they tend to become a major threat to the traditional livelihood of the people affected by them” (2005, p.8). Hence, “there is a feeling that the development minority impoverishes the majority. Case studied from all over India as well as the Pagladia dam shows this reality”(2005, p.8). “It is, therefore, essential to search for non-displacing and least displacing alternatives” (2005, p.8).

Bharali (2004) again writes that “development destroys the economic base of the local populace” (p.6). On the question of human security, Bharali (2006) highlights that,

Development projects lead a section of society towards a situation of insecurity by displacing or depriving them of their sustenance by alienating their land, forests and other sources of work from them. In that sense development projects as they are practised today, deprive them of their basic rights as human beings. The State deprives them of their livelihood without their consent and more often than not, without even informing them of what awaits them. The first effect of these processes is impoverishment at first and marginalisation later (p.8).

Fernandes (2002) carries on an in-depth study about the displacement issues and rehabilitation processes in India in general and in North East India in particular. The study points out that the process of increasing impoverishment and marginalisation by development-induced deprivation “began in the colonial age and got intensified after independence” (p.15). Unlike other parts of India i.e. Sardar Sarovar project, a large number of big projects are started as well as planned to be initiated in North-East India too. But it is creating considerable amount of development project-induced internal displacement, snatching the livelihood of the affected and pushing them to marginalization. Accordingly, the people of the region demanded

alternatives to development-projects on one hand and creates insurgency issues too. On the other hand. Therefore, the author highlights the challenge of establishing peace within the framework of justice and necessary policy requirements to address the plight of the project-induced IDPs.

Fernandes (n.d.) analyses the issues of both resettlement and rehabilitation. According to him resettlement means physical replacement and that is a “one time event” (p.4). Again, rehabilitation is a long-time process that includes reconstruction of livelihood of the people in physical as well as material term. Restoration of their resources, cultural and social structures and non-material and emotional attachments are also significant in this regard. Specially for development project-induced IDPs, he points out the need of starting the rehabilitation programmes much before the execution of actual displacement process.

Fernandes (2007) opines that Displaced Persons or Project Affected Persons feel the negative impact of displacement but Dalits and tribals feel it more than the others do and women among them are the worst affected.

While looking at the issues of development, deprivation, environment and livelihood of the poor in the Northeast, Fernandes admits that, “the State presents development as a solution but it results in their marginalisation and the vicious circle of a transition away from their sustainable culture” (pp.242-255). He focuses that “one has to search for another development based on the rich natural and human resources of the region” (pp.242-255).

Examining the feasibility of national level policy measures about resettlement and rehabilitation, Fernandes (2007) studies the National Rehabilitation Policy notified by the Government of India in 2004 and have opined that, “it does not reflect the

inputs of various actors including bureaucracy, the DP/PAP, researchers and the rest of the civil society” (pp.123-137). The displaced people are the victims of development projects and must have “right to a better lifestyle after the project than before it and have to get its first benefits” (pp.123-137).

All these available literature have provided a base to the present research. They offer a new direction to the study. These research works on IDPs are mainly concentrated on conflict-induced, development-induced displacement issues and case studies of particular river systems. Very little theoretical works on riverbank erosion has been completed. Most of them are based on field information. Considering all these prospects, the researcher develops the present study on riverbank erosion from the theoretical perspective of social justice and examination of State as well as citizenship relationship.

1.10 Significance of the Study

Till date a detailed research has not actually been conducted regarding the problem of riverbank erosion-induced IDPs in India, more particularly in North-East India. In the broader area of the study of IDPs, substantive works have been done by scholars like Samir Kumar Das (2007), Monirul Hussain (2008), Ranabir Sammadar (2009), Walter Fernandes (2005) and Gita Bharali (2004, 2005) . However, such works are mainly related to the conflict and development-induced IDPs. Very little effort has been witnessed in the area of environment-induced IDPs, specially riverbank erosion-induced IDPs from the academic world. It should be mentioned here that riverbank erosion is a serious problem for Bangladesh too. A lot of research has been conducted in Bangladesh by the *Internal Displacement Monitoring Centre (IDMC), Refugee and Migratory Movements Research Unit, Bangladesh*. In India

also, some research have been done by *Mahanirban Calcutta Research Group* such as '*Eroded Lives*' (Bandyopadhaya, K., Ghosh, S., Dutta, N. (2006) on riverbank erosion in West-Bengal. In Assam, only a few research works have been done by some renowned academia, i.e. Dulal Ch. Goswami (1985), Jogendra Nath Sarma and Shukla Acharjee (2012) and Monirul Hussain (2006, 2007). But the area is still lagging behind. Therefore, it is important on the part of the academicians and researchers to explore and conduct more research works on the issue of riverbank erosion-induced IDPs in Assam and State's response towards mitigating their sufferings.

All the above mentioned factors instigate the researcher to engage in the study of the problem of riverbank erosion in Laharighat area of Morigaon district and Rohmorja area of Dibrugarh district. Both the aforesaid areas have been facing devastative erosion and have caused a massive displacement of population. Moreover, erosion in these areas and the problems faced by the victims therein bring to the fore a serious question of relationship between the State and the citizenship. Hence, the researcher analyses the symbiotic relationship between the State and citizenship in the context of riverbank erosion-induced IDPs of the sample areas of both Morigaon and Dibrugarh districts in Assam.

1.11 Limitations of the Study

No study can be completely perfect. Each research work has certain limitations. The present study is also not an exception to it. The main limitation of the study is that the management and storage of official data is very poor regarding the amount of damage caused by riverbank erosion in terms of land loss, family and population affected, State's response regarding resettlement and rehabilitation of the displaced people in Assam. While conducting the practical investigation, the researcher had to

rely on government records and publications in media, newspapers, journals and other published and relevant works. Sometimes, the government records understate the reality and the media often exaggerate the actual situation. Thus, the claim of authenticity in this study is marked by these inherent limitations. Despite all these limitations, the researcher feels that the study is successful in throwing some light into the actual scenario of riverbank erosion in the proposed study area. Here lies the importance of this study. Nevertheless, the researcher believes that notwithstanding the data limitations, the theoretical framework of this study is likely to enable the readers to understand the problem in its totality.

1.12 Organization of the Study

The present study is organized into six chapters including conclusion in the following manner.

Chapter 1: Introduction

The thesis begins with the chapter “*Introduction*”. It aims at offering a comprehensive understanding about the problem of riverbank erosion and its consequences upon the affected persons. The chapter introduces the complexities associated with the survival, resettlement and rehabilitation of the riverbank erosion-induced IDPs, their problems, prospects and the way they interpret their threats as well as sufferings.

Chapter 2: Riverbank Erosion-Induced IDPs and the Question of Social Justice and Entitlement

The second chapter focuses on the theoretical framework to analyse the problem of riverbank erosion and the plight of the IDPs. Here, the researcher looks into the relationship between the citizens and the State through the prism of social justice. The chapter renders theoretical understanding about the aspect of life, livelihood,

resettlement and rehabilitation prospects associated with the IDPs and their interrelationship. Hence, the theoretical debate regarding the plight of the riverbank erosion-induced IDP is the focal point of discussion of this chapter.

Chapter 3: Study of the Universe: A Spatial and Socio-Economic Analysis

The third chapter contains an overall spatial explanation of the universe of our study. The chapter includes the socio-economic, demographic, geographical, hydrological, climatic and soil quality related explanations of the universe. Here, population composition, demographic variation, socio-economic standard of living and related geographic-environmental propositions of the study area are the key concepts of analysis.

Chapter 4: In the Aftermath of Riverbank Erosion: An Observation of Morigaon and Dibrugarh Districts of Assam

The fourth chapter explains practical experiences of the extent and impact of riverbank erosion in Morigaon and Dibrugarh and more particularly in the sample villages in both the districts. The chapter explores a macro level understanding about the consequences of riverbank erosion in Assam and then stick directly to the micro perspective of examining the cases of Morigaon and Dibrugarh district.

Chapter 5: Policy Measures and Realities

The fifth chapter examines the available policy measures for addressing the sufferings of the riverbank erosion-induced IDPs. Again, popular movements and corresponding State's response in checking the problem of riverbank erosion specially in the sample areas of our study is another important issue of discussion of this chapter. Practical scenario of resettlement as well as rehabilitation of the affected persons of our universe is also addressed in this chapter. At this juncture, the study incorporates the issue of politics of erosion to internalize the role of

political parties in dealing with the issue of riverbank erosion and associated IDPs. The chapter carries on an assessment about social justice, more particularly compensatory justice taken up by the State to mitigate the plight of the affected persons.

Chapter 6 : *Conclusion*

Here, the researcher provides an overview of all the chapters and summarizes the findings. Accordingly, the study offers some suggestions to mitigate the problems of survival, resettlement and rehabilitation of the riverbank erosion-induced displaced persons in Assam in general and in the context of the Morigaon and the Dibrugarh districts in particular.

Hence, this chapter offers an outline of the whole research work and provides insight on the methodological way to carry out the actual study of the sufferings of the riverbank erosion-induced IDPs. Before analysing the results of empirical investigation of our research work, the present study offers, a theoretical framework to conceptualize the aspect of IDPs, question of their social justice, resettlement, and rehabilitation and entitlement issues in the next chapter of our discussion. Thus, the following chapter initiates the way to continue the study about the theoretical background behind the present research work and opens up the discussion.

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Chapter II

Riverbank Erosion-Induced IDPs and the Question of Social Justice and Entitlement

Any serious research needs a well-based theory that breeds systematic and analytical approach to the social problems whatsoever. No research can avoid theoretical endeavour on the way to enlighten its research prospects. The present research comprehends the aftermath of riverbank erosion, i.e. survival, resettlement and rehabilitation of the affected people through the prism of social justice. Here, the researcher tries to analyse the conditions of the marginalized, i.e. the riverbank erosion-induced IDPs and *vis a vis* the role of the State towards such vulnerable sections. The discussion of this chapter is divided into *IV sections*. The introductory discussion on the issue of riverbank erosion-induced IDPs and the question of social justice and entitlement is the *section I* of this chapter. Theoretical explanations about the concept of justice and social justice are the *section II* of this chapter. *Section III* of this chapter contains a discussion on the concept of entitlement and IDPs. The last *section IV* covers a theoretical understanding about the issues of resettlement, rehabilitation, impoverishment risks and caring of the IDPs. The interrelationship between State, society and citizenship in the context of plight of the IDPs and role of the State are theoretically analysed in this section.

Section-I

2.1 Issue of Riverbank Erosion and the Question of Social Justice and Entitlement

This chapter is an attempt to understand the aftermath of riverbank erosion, i.e. survival, resettlement and rehabilitation of the affected people through the prism of

social justice. The study theoretically examines the conditions of the riverbank erosion-induced IDPs and the State response towards addressing their problems. The awareness about the global crisis of internal displacement and the plight of affected persons has grown since the time of a normative framework for addressing the IDPs has been developed. IDPs are like refugees basically in terms of their lives and living conditions. But they are residing within their State boundary. Accordingly, ensuring their well-being is the sole responsibility of their respective State. However, it has captured significant international attention and concern in recent times. But, the real challenge lies in ensuring that IDPs can enjoy their human rights in full equality with others and also requires paying attention to the needs and risks to which the experience of internal displacement exposes them.

2.2 Concept of Justice, Social Justice and Entitlement Approach

The present study entails conceptualization of the term Justice and more particularly social justice to explain the issue of the riverbank erosion-induced IDPs. Justice is the umbrella political theory of the present research. By and large, it brings out conceptual layers of understanding the interrelationship between the riverbank erosion-induced IDPs and their basic questions of grievances as well as the corresponding State's responsibility. The theoretical framework of our research thus invites precise study of the following concepts.

2.2.1 Concept of Justice

Justice is always associated with the issues of morality and social set up of any given society. It combines the ideas of equality, freedom, legality, moral conscience, rights, duties, just distribution and dignified living standard of people and society. It

is often viewed together with the concepts of social equilibrium, proportionality and social decorum. “Justice is a concept of moral rightness based on ethics, rationality, law, natural law, religion, or equity, along with the punishment of the breach of said ethics; justice is the act of being just and/or fair” (Mahajan, 2015, p.51). Thus, justice is an ethical concept and covers almost all dimensions of socio-economic life of a society. Justice tends to establish a just and fair order in any specified social set up. Justice stands for the principle of structured distribution of rights and socio-economic and political resources among the members of a society in such a way that all shades of the society acquire its benefit. Basically, different scholars from different spectrum conceptualize the term justice from their specific perspectives. In the similar context, Gogoi (2007) also opines that “it is very difficult to give a specific meaning of the concept of justice because it is assigned different meanings by different people at different times and places” (p.442).

Every one explains the term justice by their own cultural viewpoints and value judgments. In the early Indian traditional concept, justice is treated as maintenance of *dharma* or a just social order. Therefore, justice was associated with the principal duty of the ‘king’ to maintain *dharma* or just administration. In this context punishing the wrong doers and rewarding the right men was also considered justice. According to Ernest Barker (as cited in Mahajan, 2003, p. 403), literally, the word “justice” is derived from the Latin word “jus” (a bond or tie). Thus, justice combines people together in a right or fair order of relationships by delivering to each person his or her due share of rights and duties, rewards and punishments. Justice does this by bringing about adjustment between people and the principles of liberty, equality and co-operation.

In the 4th Century B.C. in Athens, Plato discusses justice as a just social order based on some definite standards and society have consensus over them as they have the potentiality to assure welfare for all sections. Plato declares justice as a virtue and it refers to proper execution and maintenance of duties by each sections of society. In his “Republic”, Plato says (as cited in Abbas and Kumar, 2012, p. 362) justice is the power of individual concentration on duty which means “each man should devote himself to that one function in the state for which he was by nature best suited”. Thus, it can be agreed that Platonic justice entails principle of proper maintenance of one’s assigned duties. To him, in order to have a just state, every individual must perform their duties properly. Therefore, Sabine (2007) argues that proper division of labour and non-interference in each-others duties are prerequisites of Platonic idea of Justice. Hence, the Oxford Dictionary of Politics opines that “Plato’s Republic depicted a just society as one in which various social functions were properly fulfilled and balanced, thus tending to assimilate the virtue of justice with the pursuit of the common good” (p.286). Justice can be better perceived as an attribute of law backed by impartiality and fairness. Menon (2008) also points out that in ideas of Plato, Justice is one of the four principles of virtue while the other three are temperance, courage and wisdom. Accordingly, Gogoi (2007) quotes the ideas of Platonic justice as “Justice is the individual means that reason, spirit and appetite were kept within their proper limit” (p.443).

Again, in the views of Aristotle, both law and fairness attains the highest position in the realm of justice. Here, “Aristotle argues that all lawful and fair acts are just and all unlawful and unjust acts are unfair” (Bhandari, p.2014, p. 12). Menon (2008) incorporates that “for Aristotle, justice lies in incorporating concerns of equality,

proportionality and maintenance of equilibrium in society” (p.75). In addition, Johari (1989) says that “equal treatment for equals and unequal treatment for unequals” is the basic issue of Aristotle’s concept of justice (p.247). Therefore, justice in views of Aristotle is nothing but a social set up where everyone should get equal as well as fair treatment by taking into account their relative differences and accordingly attain due share in socio-economic benefits and burdens (Menon, 2008). Abbas and Kumar (2012) explain that Aristotle sought to construct an ideal polity with balanced class composition, which means predominant middle class, neither of extreme poverty nor of extreme aristocracy. To resolve the problem of relative claims of various classes to power in polity, Aristotle entailed the requirement of devising criteria for distribution of public offices and privileges in the polity. Accordingly, Aristotle recognized three types of justice, namely (i) distributive justice characterized by proportional equality and renders due share and proper position to everybody within the political community (ii) corrective justice tries to correct a loss of position and rights involuntarily sustained in the course of transactions between individual members of community and (iii) Commutative justice determines the proportion at one sort of goods or services to be rendered in return for another in voluntary transactions of buying and selling (Abbas & Kumar, 2012). Thus, from the above discussion it appears that Aristotle recognized the prevalent inequalities between individual and entails distribution of goods, services and wealth among all according to equality and proportionality.

McKerlie (2001) opines that the Aristotle’s concept of distributive justice should be executed in accordance with ‘worth and desert’. Thus, the idea of justice is connected with the matter of ensuring “common good or the common advantage and

to the state's goal of enabling its citizens to live well" (p.119). On the similar vision, Abbas and Kumar (2012) also points out that Aristotle's concept of justice suggested for establishing equality in proportion to the principle of merit and equal shares. It means distribution of benefits, rewards positions and offices should be proportionally equal to one's contribution in public life and varied treatment to varied classes must be characterized by fairness and reason.

For the Utilitarians "justice requires the maximization of the total or average welfare across all relevant individuals" (Mahajan, 2015, p. 60). Accordingly, justice stands to satisfy maximum interests of the maximum numbers of the society. "The doctrine of Utilitarianism is the creed that holds that actions are right in proportion as they tend to promote happiness and wrong as they tend to produce the reserve of happiness" (Dukor, 1997, p. 504). Here, the names of "Jeremy Bentham and John Stuart Mill" are counted as founding fathers of the doctrine (Dukor, 1997, p. 504). The Utilitarians upheld that happiness to be the end of the society and that to be achieved by the State through execution of laws. "The most important duty of the State according to Bentham (as cited in Das, 2001, p. 325) is promotion of happiness and alleviation of pain and the state performs this duty through the implementation of laws that are enacted by the legislator". In other words, Bentham argues that primarily the State should perform in such a way that their greater amounts of citizens will have maximum happiness (Das, 2001).

While looking through the perspectives of socialism, one can admit that "the aim of socialism is to give greater freedom to the individual, without freedom equality is meaningless" (Bagchi, 1999, p.7). According to Garner (as cited in Johari, 1989, p.650), the theory of socialism is founded on the principles of justice and right. The

land, mineral wealth and instruments of production therein should belong equally to all, not to be appropriated by the few. Thus, from the socialist perspective, justice assimilated the aspects of equality, freedom and rights that aspire for securing equality of opportunity and equality of rewards, to be achieved through just distribution of national wealth, income, privileges and opportunities to all sections of society.

Karl Marx studies “justice and law in the context of revolutionary change” (Gueguen, pp.281-282). He perceives law as “a material machinery of state oppression, a real instrument of power” (Gueguen, p. 282), law along with the whole state apparatus exists only for the sake of private property. Thus, the concept of justice and law are seen in terms of class exploitation of the capitalist structure in the Marxian view point. Therefore, it pointed out exploitation of man by man in the capitalist structure and urge for a socialist society and at the end, a stateless as well as classless society to have equity and fair treatment, growth of all and abolition of all inequalities. Thus, “Marxian or socialist theory of Justice talks about distributive principle on economic basis and rejects the concept of legal justice” (Abbas & Kumar, 2012, p.369). Marxists admit that “in a communist society, because of social ownership of means of production, justice would mean equality of all and equality for all. It would mean absence of all discrimination, all exploitation and all oppression” (Arora & Awasthy, 2007, p.295).

While talking about the legal justice, Gogoi (2007) states that legislature should be rational, reasonable and considered as the representatives of the people having legitimate power to make laws. Such laws “should be equal for all classes of people” (p.444). “Legal justice demands that every individual should be able to have

impartial justice under the existing judicial system” (Mahajan, 1988, p.405). Besides, “justice in the legal sphere consists not only in the efficient administration of law, but it postulates that law itself should embody human values according to the prevailing social consciousness” (Gaubu, 2003, p.377). So, one can derive legal dimension of justice as impartial and efficient administration of law considering the prevailing social changes and norms.

Again, Thomas Hobbes, the social contract theorist points out (as cited in Spring, 2008) that “justice is the constant will of giving to every man his own. And therefore where there is no own, that is, no propriety, there is no injustice” (p.2). Again, Hobbes considered justice “as equality in treatment and equality in rights. In such rights and considerations as property, levying taxes, contracting with one another, Hobbes requires the sovereign to treat each individual equally” (Abbas & Kumar, 2012, p.368).

Therefore, from the above discussion justice can be understood as enforcement of law by the authority to treat every person according to their activities and subsequently provide everyone their due share. Hoffman (2007) conceptualizes justice as not simply goodness or virtue, rather “giving every person their due” (p.86). On the other way, justice refers to law, its proper application and fair results. Here, Heywood (2004) admits that justice in the procedural sense refers to the rules that guide the legal process and in the substantive sense the outcomes. Providing due share to everyone is a broad concept that associates justice with equality, rights, freedom, fair distribution, impartiality, non-discrimination, non-exploitation, compensation and particular treatment. Therefore, while talking about justice, Julian (2004) analyses the works of John Rawls and opines that Rawls supported the

principle of fair equality of opportunity and impartial distribution of both benefits and burdens of society. So, Justice can be seen in the form of varied treatment for various sections considering their position as well as activities. Usually, justice implies punishment to people for unlawful activities and ensures compensation for the victims, who suffers from unlawful activities of others. Again, justice should ensure well-being and protection for all sections. Every person should attain their due share in civil, political, economic as well as social spheres and the treatment from the authority is sometime particular considering the special cases. Besides, the procedures followed in deciding rewards and punishments considering the specific issues should be impartial. So, impartiality and particular treatment in the application of law is necessary to have fair results. Equality before law and special treatment are therefore considered as justice. For the Utilitarians justice should ensure maximum benefits for larger section of the society. Again, for socialists, justice means the distribution of benefits and services in such a way that everyone should have fullest freedom to have fullest development in a society.

Thus, the researcher points out certain basic understanding about various perspectives of justice in the following discussion.

- Maintenance of law and legal procedures to ensure impartial administrative outcomes can be considered as justice. Here, laws must satisfy the issues of social dynamism and the authority has to construct new as well as varied laws to address new changes in society. Needs of all aspects of individual and social life such as civil, social, political, economic, cultural, ethical are to be addressed by laws, and effective implementation of such laws can only establish justice.

- With the execution of proper and efficient legal procedures only justice can be realized. Thus, the legal theory of justice “identifies the whole idea of justice with the working of the courts” (Johari, 1989, p.241).
- Administration should work to deliver fair services to everyone. Considering the views of John Rawls on Justice, Gogoi (2007) quotes “all values liberty, opportunity, income, wealth and bases of self-interest are to be distributed equally unless an unequal distribution of any or all, of these values is to everyone’s advantage” (p.443).
- Authority must be impartial in formulation as well as execution of laws. Mahajan (2015) opines that John Rawls views on justice shows economic barriers as the main sources of social injustice.
- Justice is delivered through institutions of government such as executive, legislature and judiciary.
- Ethical and moral considerations of a particular society shape its concept of justice. Authority must consider the notion of equality, rights, fairness, morality and social norms while offering services to its people. Examining the outcomes, Abbas and Kumar (2012) argues that distributive justice tends to apply just principle in distribution of initial conditions as well as end products.
- In capitalist society, justice must work to end up all types of discrimination and exploitation specially in economic terms.
- Justice must results in maximum happiness to maximum numbers of people in any given social set up. But at the same time justice must look at the

interests of the small and weak sections too. Hence, by protecting the individual, social and group rights at the fullest level only justice can be realized. Hence, the law of justice “requires that the deprived and underprivileged sections should be given special protection in order to save them from the excesses of the dominant sections” (Gaubá, 2003, pp.373-374).

- Therefore, it can be said that everyone should attain due position and share considering their differences and similarities. Just administration must address this question of proportionality throughout its working. Advocates of natural justice say that justice “involves the system of consequences that naturally derives from any action or choice” (Mahajan, 2015, p.54).
- Justice offers rewards and duties to different categories of people, considering the requirements, priority issues, available resources in a society. It recognizes the welfare perspectives and social assistance to the needy sections to promote development, human dignity, access to social well-being and justice for all (<https://www.un.org/development/desa/dspd/international-days/world-day-of-social-justice/world-day-of-social-justice-2017.html>).
- “In political theory, justice has concerned both the terms of membership of a social group and the distribution of burdens and benefits within that group” (Oxford Dictionary of Politics, 2009, p.286). Here, justice is considered by addressing the social dimension of any given set up. It is the distribution of wealth, income, privileges and opportunities on one hand and sufferings on the other among the members by considering their positions and share within the group. Therefore, it supports special treatment for special sections of society, commonly known as ‘protective discrimination’ (Das, 2020, p.142).

It is significant that in a society if there is equal treatment between people having a quality standard of living and opportunities and those who have been deprived of even the basic minimum requirements to live a healthy and productive life, then the results would be more of an unjust social order. So, while offering equal treatment in society, the authority must consider the plight of the deprived sections of society. A balance between both equal and unequal treatment among the privileged and underprivileged class can only produce justice in its true sense. Ideally, justice aims to assure an ideal standard of living for the whole society.

- According to Arora and Awasthy (2007), the economic dimension of justice considers establishment of such a social order where main principles are mutual co-operation, attainment of maximum production through voluntary and independent economic enterprises, equitable distribution of commodities, end of exploitation, social security and refrain from concentration of material resources in a small class of people.
- Protecting political rights of individual and society are the focus of political justice. It refers to “the reorientation of political institutions, political process and political rights according to the current conceptions of justice” (Mahajan, 2013, pp.367-368).
- While talking about the viewpoints of Barker, Das opines that the function of justice is to effectuate co-operation and adjustment of principles like liberty, equality and fraternity (Das, 2006). Here justice arises as a combining force among the said principles to attain its fruits for the greater interest of the society.

However, from the above discussion, the present study offers a comprehensive understanding about the approaches associated with the study of the concept of justice. The researcher opines that in broader perspective, justice is an ethical concept and is always marked by social conditions. Peoples' needs, rights, social security, social balance, social change are the hidden aspects without considering them, no one can analyze justice. Again, in narrower sense, justice is merely execution of laws by the concerned authority. Again, different philosophers from different schools interpret justice with their own values. Therefore, varied interpretations are found in the domain of understanding justice.

In addition to justice, while developing the present study, the researcher undertakes the theoretical framework of social justice to analyse the plight of the riverbank erosion-induced IDPs in Assam in general and in the sample area in particular. Therefore, at this juncture, the researcher moves to the theoretical connotation of social justice to comprehend the theoretical background of our research question.

2.2.2 Concept of Social Justice

Social justice is one of the inevitable dimensions of the concept of justice. In contemporary times, it appears as one of the key areas under the theoretical framework of 'Justice'. According to United Nations (2006),

None of the history's great philosophers—not Plato or Aristotle, or Confucius or Averroes, or even Rousseau or Kant-saw the need to consider justice or the redress of injustices from a social perspective. The concept first surfaced in Western thought and political language in the wake of the industrial revolution and the parallel development of the socialist doctrine. (pp.11-12)

The term "Social Justice" was coined by the Jesuit Luigi Taparelli in the 1840s, and again the idea was elaborated by Father Coughlin in the 1930s and 40s. John Rawls' writings in the 1990s further expanded the concept (https://en.wikipedia.org/wiki/Social_justice#History). Heywood (2004) states that "During the 20th century, justice came to be discussed usually in relation to social life in general and the distribution of material rewards in particular, which is usually defined as 'social justice'(p.173). The term 'Social Justice' actually refers to a movement towards establishment of a socially just world order. The idea of social justice is inevitably associated with the aspects of human rights and equality and there lies the capacity to develop an equalitarian society where everyone attains the basic minimum needs for desired living. Thus, the idea of social justice "aims to promote the welfare of people by securing and developing a just social order" (Srivastava, 2012, p.124).

Heywood is of the view that (2004),

The term 'social justice' is beset by political controversy. For some, it is inextricably linked to egalitarianism and acts as little more than a cipher. As a result, the political right recoils from using the term, except in a negative or derogatory sense. Hayek, for instance, regarded social justice as a weasel word. (p.294)

Asirvatham and Misra (1995) opines that in modern times, social justice can be analysed as a concept that seeks to eliminate all kinds of discrimination and privileges based on birth, race, caste or sex. Again, Gogoi points out that "all should be given equal opportunities to develop their personalities. Otherwise there will be no social justice" (Gogoi, 2007, p.443). The elimination of all forms of discrimination itself requires certain conditions in every social set up. Such conditions must address the aspects of inequality, freedom, rights, welfare issues,

social well-being, development, human dignity and protection from evils to all individuals as well as groups in a society. Administration usually resorts to fair and equitable distribution of social benefits and burdens among all to attain these ends. Considering these issues, Hoffman (2007) therefore admits that social justice can be attained when the distribution of resources are fair. On the similar line, the Oxford Concise Dictionary of Politics (2009) defines “social justice as the framework within which particular applications of distributive justice arise”(494). Again, while looking at the aspect of distribution, Mahajan (2013) writes that social equality and social rights are pre-requisites to realize social justice. It refers to the need of distributing the material and moral benefits of social planning in such a way that it can serve all sections of society including the richest and the poorest groups.

In contemporary times, the relevance of social justice lies in the fact that all human beings and societies are now well conscious about the lives and living conditions of all spheres of its people. International Labour Organization’s *Declaration on Social Justice for a Fair Globalization* proves the emerging emphasis of social justice in the international arena (Social Justice Declaration, 2008). Again, in the Indian scenario, the Preamble of the Constitution of India incorporates the need of assuring social, political and economic justice to all its citizens. Besides, through its provisions of fundamental rights and directive principles of State policy, the Constitution of India tends to secure justice in the long run (The Preamble to The Constitution of India, 2020).

In real sense, social justice can be achieved in such a society where all sections of its people attain minimum standard of living and equitable opportunities to develop their hidden qualities. “A just society should provide people with basic minimum

conditions to enable them to live healthy and secure lives and develop their talents as well as equal opportunities to pursue their chosen goals in society” (Mahajan, 2015, p.73). Here, Heywood (2004) admits that social justice “stands for a morally defensible distribution of benefits or rewards in society, evaluated in terms of wages, profits, housing, medical care, welfare benefits and so forth” (p.294).

In addition, different scholars have explained social justice by considering a number of issues to address the general interest of the society as well as the interest of the particulars. Johari (1988) argues that the term social justice involves wide ranging manifestations. It includes everything within the ambit of general interest considering “from the protection of the interest of the minorities to the eradication of poverty and illiteracy” (p.243). It incorporates the issues of protection of the weak and marginalized groups along with addressing the issues of general interest. Further, Gauba (2003) explores social justice as a progressive and development model. He talks about reallocation of material and moral advantages of social life to attain the fruits of social justice. He emphasizes re-structuring of social life in such a way that the objective as well as subjective advantages of social efforts are not cornered by a small privileged class but distributed to the masses to ensure the uplift of the lower, weaker and underprivileged sections of society. It assimilates liberty, equality and fraternity in their substantive orientations to attain political, economic and social rights and equity. Thus, he combines the social, economic and political aspects of society within the preview of social justice (Gauba, 2003). Social justice hence, stands for “organization of society on the basis of ideas of fairness and equality current at the time. It seeks a revision of social order so as to have a more equitable society” (Goswami, Bhuyan & Paul, 2015, p.115). On the similar

approach, Arora and Awasthy (2007) also identify the particularities of social dimension of Justice. According to them the social dimension of justice reflects a just society. Its particularities would include end of all forms of discrimination and privileges based on birth, race, caste, creed or sex, opening arrangements for capacity driven social roles, establishing social mobility instead of rigid stratification, establishing equality for all and universal brotherhood.

Hayek's concept of justice (as cited in Arora & Awasthy, 2007) tends to have,

- i. a state that acts neutrally between the competing interests of numerous groups;
- ii. a set of abstract laws which will secure the maximum amount of individual freedom from minimum coercion;
- iii. a free market unconstrained by the distributive principles of social justice. (pp.299-300)

While looking at the views of Ambedkar's social justice, Abbas and Kumar (2012) explain social justice as principle of distributive justice in society which deals with "morally defensible distribution of benefits or rewards in society" (p.375).

Besides, while considering the aspect of equity and fairness, Heywood (2004) opines that,

While some argue that social justice requires a high level of material equality on the grounds that wealth should be distributed according to individual needs, others are happy to accept a high level of material inequality so long as this is based upon the unequal talents of the people involved. (p.177)

When the condition of inequality appears, there is always the question of particulars and reasoning come on the forefront. "Rawls insists that justice prevails only when every departure from equality can be rationally justified" (Menon, 2008, p.78).

Apart from all these, Wolff (2008) points out that "Iris Marion Young, while studying social justice, brings sociological factors alongside those of political

philosophy” (p.183). Besides, Bose and Das (2009) admit that social justice requires the aspect of addressing certain specific social phenomena as social problems and there lies the way how rights can be given to an underprivileged section.

Further, when one aims to set social justice in international scenario, it appeals to have just distribution of goods and service across the globe. Again, in national set up, it appeals to have the same between different groups and individuals. The United Nations Department of Economic and Social Affairs, through the three year project *The International Forum for Social Development (2001-2004)* also carries on a detailed discussion about various dimensions of social justice. It opines that “justice derives from equality of rights for all peoples and the possibility for all human beings, without discrimination, to benefit from the economic and social progress disseminated and secured through international cooperation” (p.13).

This aspect can be better realized when one studies the concept of John Rawls. “Rawls theory of distributive justice is based on the idea that society is a system of cooperation for mutual advantage between individuals” (Srivastav, 2016, p.153).

Rawls in his work “A Theory of Justice” (1971) explores the following principles.

First: each person is to have an equal right to the most extensive scheme of equal basic liberties compatible with a similar scheme of liberties for others.

Second: social and economic inequalities are to be arranged so that they are both (a) reasonably expected to be to everyone’s advantage, and (b) attached to positions and offices to all. (p.53)

Considering these above mentioned principles of Justice forwarded by John Rawls, Gauba (2003) highlights that John Rawls idea of justice can be seen through the following three perspectives.

- Principle of equal liberty, that implies equal right of all individual in the domain of political participation, right to freedom of expression, liberty in religious matters and equality before law in a given society.
- Principle of fair equality of opportunity more particularly for acquiring offices and positions, that implies while distributing the positions and offices, fairness and equity are observed at its best.
- Difference principle that implies only there should be differences in distribution if that can foster greatest benefit to the least advantaged sections of society.

Again, Rawls (as cited in Das, 2006) “has said that if the distribution of goods and privileges and the production of commodities are efficient then the realization of justice will be possible” (p.184).

Therefore, Arora and Awasthy (2007) summarize the Rawls idea of Justice in the following manner. Rawls considers justice on the basis of fairness and aims to establish liberty and equality for all. Again, that fair equality principle must be accompanied with the principle of priority and difference principles considering the special situations to benefit the least advantaged groups. This view point of justice supports that all the primary goods of a society has to be distributed equally and only to satisfy the least advantaged sections, unequal treatment is permitted. Such inequality, therefore, aimed to establish greater equality.

Social justice, according to Oxford Dictionary of Geography (as cited in Sen, 2011) is the “distribution of benefits and hardships in society, together with the way they are allocated” (Sen, 2011, p.45). Besides, he also points out the concept of spatial variation highlighted by Smith. Sen argues that regarding the distribution of public

goods, we often look at the issues of inequality in terms of birth, race, colour, creed, caste and class. But recently, the notion of spatial injustice aroused as another important dimension under inequality. It reveals the need of considering spatial variation while distributing benefits and opportunities for establishment of justice (Sen, 2011). For Robert Nozick (as cited in Arora and Awasthy, 2007, p.305) “it is not justice if it is distributive and he says that a society is just so long as its members possess which they have a right to”. This is the entitlement approach of social justice rather than the distributive approach.

Robert Nozick in his work “Anarchy, State and Utopia” (1974) explores entitlement theory and discusses the subject of justice in holdings in the following way.

1. A person who acquires a holding in accordance with the principle of justice in acquisition is entitled to that holding.
2. A person who acquires a holding in accordance with the principle of justice in transfer, from someone else entitled to the holding, is entitled to the holding.
3. No one is entitled to a holding except by (repeated) applications of 1 and 2.

The complete principle of distributive justice would say simply that distribution is just if everyone is entitled to the holdings they possess under the distribution. (p.151)

Another important concept of social justice appears in the hands on David Miller. According to the *National Pro Bono Resource Centre, the University of New South Wales* (2011), David Miller’s idea of social Justice is based on the view that,

The market is capable of giving individuals what they deserve. This theory treats individuals as responsible for their own actions and proportionately rewards (or punishes) them in accordance with their actions and efforts, in so far as the actions/efforts are the result of their individual choices. In Miller’s

view, those that are more talented and hardworking deserve more than talentless and lazy people (p.7).

This concept of Justice tries to give every person their due share as per their actions, efforts, talent and hardworking.

Contemporary economist Amartya Sen provides another remarkable idea about social justice. Sen (as cited in Sakhuja, 2010) admits that "the theory of justice must be more concerned with the elimination of removable injustices rather than defining a perfectly just society". Sen again acknowledges that as "My job as an economist has been about identifying injustice, and I am concerned with developing human freedom and capabilities as tools, and not just relying on institutions" (Sakhuja, 2010).

On the issue of human security, Amartya Sen opines that

we have to go beyond economic growth to understand the fuller demands of development and of the pursuit of social welfare. Attention must be paid to the extensive evidence that democracy and political and civil rights tends to enhance freedom of other kinds (such as human security) through giving a voice, at least in many circumstances, to the deprived and the vulnerable. (Sen, 2009, p.348)

This human security connotation of Amartya Sen's ideas addresses the needs of the deprived and vulnerable sections of society. It is by and large essence of social justice. Further he incorporates that "the role of unrestricted public reasoning is quite central to democratic policies in general and to the pursuit of social justice in particular" (Sen, 2009, p.44).

Hence, from the observations of Amartya Sen, one can have the idea of impartiality, fairness, equity, conditions of differences and need of Nyaya (Justice) to ensure

fullest possible development to all sections of society, specially for the differently abled group irrespective of their differences and disadvantages.

In *What is Social Justice?*, *The National Pro Bono Resource Centre, the University of New South Wales* (2011) incorporates the views of Amartya Sen. According to this study, Amartya Sen considers social justice in such a situation, where every individual attain required capacities for securing fullest well-being in their own environment. In the Indian context, Sen identifies poverty as the reason for deprivation of peoples' basic capabilities such as being literate, being active in community. He advocates to have social arrangements such as institutions and programmes to make individual competent to build their basic capabilities. Thus, one can have the idea that Amartya Sen emphasizes on fullest development of individual capabilities. If proper social arrangement and institutions are established to empower individuals to build capabilities, then accordingly injustices will be removed and deprivation among individuals in a given social set up will disappear.

In simple terms, when social provisions as well as policies satisfy all sections of people and uplift their standard of living by removing social distinctions and inequality, then social justice can be easily realized. Constitutional and legal provisions significantly play its part in this regard. Here, in the Indian context, the researcher identifies social justice as "a fundamental right" (Basu, 2001, p.25). Further, Basu (2001) explains

Social justice as the comprehensive form to remove social imbalance by law harmonizing the rival claims or the interests of different groups or sections in the social structure or individuals by means of which alone it would be possible to build up a welfare state. (p.25)

Accordingly, Basu (2001) admits that the framers of the Constitution of India included a number of provisions to ensure equal and just situations for individuals. For example, Article 39 (A) directs the State to ensure equal justice for all and suggests for providing free legal aid and other suitable measures to the poor. Article 43 (A) ensures economic justice by offering the participation of workers in the management of industry and other undertakings. Article 38 asks to promote the welfare of the people, minimizing inequalities in income, eliminate inequalities in status, facilities, opportunities among individuals and groups of people residing in different areas or engaged in different livelihood options.

Thus, from the above discussion the researcher has developed an overview about the concept of justice as well as social justice. Here, in the way of realization of social justice certain issues always come to the limelight. Moral considerations, individual capabilities, social discriminations, institutional arrangements, rights, equality, equity and fairness are some of those considerations. Again, while analysing the situations of deprivation and demands for justice, the issue of entitlement also appears significantly. Therefore, in this juncture, the present study is now going to discuss the concept of entitlement approach to carry on the theoretical flow of the research work.

Section-III

2.2.3 Concept of Entitlement Approach

Entitlement approach is a new theoretical nuance of social justice. The victims of unjust treatment are obviously deprived of their required entitlements. Entitlement is a relative issue and can be understood in the form of material or non-material privileges. Usually, entitlement refers to rights, power, prerogatives, claims as well

as privileges. If a person or a group of persons are entitled to equal treatment in the form of rights and liberties, then the person must be entitled to get conducive atmosphere from the concerned authority in the said fields. According to the Oxford Concise Dictionary of Politics (2009),

Entitlement is a claim or right defended by reference to what has already occurred, or an established procedure, particularly previous authorization under such a procedure. For example, a police officer may be entitled to enter premises by a search warrant. (p.172)

The theory of entitlement and its implementation also constitutes the foundation of justice. Here, the study incorporates the view points of Robert Nozick. Robert Nozick in his work *Anarchy, State and Utopia* (1974) (as cited in Abbas and Kumar, 2012) focuses on entitlements while talking about distribution in society. Nozick views entitlement as rights and explores that entitlement arises by employing skills, abilities and talents, and those are individual assets. Hence, Nozick admits that, “in every society considering the point of entitlement, everyone should attain rewards” (as cited in Abbas and Kumar, 2012, p.379).

Further, Nozick (as cited in Heywood, 2004) suggests three ‘justice preserving’ rules. Those are:

First, wealth has to be justly acquired in the first place, that is, it should not have been stolen and the rights of others should not be infringed. Second, wealth has to be justly transferred from one responsible person to another. Third, if wealth has been acquired or transferred unjustly this injustice should be rectified. (p.299)

As regards to these three principles, the Oxford Concise Dictionary of Politics (2009) includes that,

Robert Nozick propounded a historical entitlement theory of justice which depends on the pedigree of titles to property. According to this theory, individuals have natural rights and this ground the legitimate original acquisition (creating titles to property). These entitlements defeat the claims of others, including a state, to those holdings, reducing the scope for redistribution to compensation for rights-violations. (p. 172)

Thus, from the above interpretations, the scholars can arrive at the point that Nozick's idea of entitlement was in contrast with the John Rawls idea of justice. According to Gauba (2003), in order to secure interests of the poor, weak and under privileged sections of people Rawls proposed difference principle and fair distribution. But in contrast to it, "Nozick admitted that using abilities and efforts of one section as means to other's end is the violation of morality. Rather he identified such welfare of the poor dependent on charity, not on justice" (Gauba, 2003, p.387).

As per the viewpoints of Amartya Sen (as cited in Sen, 1984, p. 497), rights, justice and entitlements are related issues. Entitlements has defined by Amartya Sen (as cited in Devereux, n.d., p.246) as "the set of alternative commodity bundles that a person can command in a society using the totality of rights and opportunities that he or she faces".

Osmani (1993) argues that Amartya Sen's entitlement approach develops three main conceptual expressions namely the endowment set, the entitlement set and the entitlement-mapping. The endowment set includes the legally owned resources of a person, such as land, equipments, animals on one hand and knowledge, skill, labour power, membership of a particular community on the other and that to be sanctioned by the law and social norms of the given society. The entitlement set includes all such goods and services of a person that he or she can legally acquire from his or her

endowment set. Besides, entitlement mapping refers to the relationship between the endowment set and entitlement set.

Thus, Amartya Sen's entitlement approach considers the legality and social norms associated with the concept of entitlement. His 'entitlement' refers to the resources that a person own in terms of both material and non-material assets from the law of the land and the social norms of a particular set up.

If we consider the aforesaid entitlement approaches and attempt to relate them with the riverbank induced IDPs, we can derive the fact that as these IDPs are facing extreme impoverishment risks, there are very few possibilities for them to utilize their endowments. Most of their material resources have been taken up and destroyed by the riverbank erosion and they are unable to find adequate platforms to use their cognitive and non-cognitive talents. Hence, it is the duty of the State to address the cause of the IDPs and satisfy their security and livelihood related issues.

2.3 Conceptualization of IDPs

Internally Displaced Persons (IDPs) are the persons who live in refugee like situations within the geographical boundary of a country. They are displaced people who lost their homestead or cultivable land due to natural disasters like river bank erosion, flood, earthquake, cyclone, tsunami, etc. due to ethnic or other violence or due to ongoing development projects. The displaced persons bring forth similar socio-economic and cultural situations as like refugees. Internal displacement refers to forceful or involuntary flee of people from one place to other within the ambit of national boundary. Thus, usual voluntary movement of people for economic, social or cultural reasons cannot be categorized as internally displaced persons. But, in

some situations of internal displacement, the factors of involuntary movement co-exist with factors of economic hurdle. For example, the ethnic, linguistic or religious minorities, usually in the situations of violence either by terror or counter terror activities, flee from their home or places of livelihood.

While defining the concept of IDPs, Mooney (2005) expresses that the issue of internal displacement emerged onto the international agenda in the early 1990s, but at that time “there was no available definition to internally displaced persons” (p.10). *Internal Displacement Monitoring Centre (IDMC)* also developed that internal displacement was placed on the international agenda and recognized as an important issue of global concern in the early 1990s. At this point, internal displacement was a subject with neither clear definitions nor a normative framework that could guide states and international humanitarian actors (<https://www.internal-displacement.org/internal-displacement/history-of-internal-displacement>).

Considering the definitions of IDPs, Mooney (2005) incorporates that,

The first working definition had been put forth in 1992 by the United Nations Secretary-General and defined internally displaced persons as: “Persons or groups who have been forced to flee their homes suddenly or unexpectedly in large numbers, as a result of armed conflict, internal strife, systematic violations of human rights or natural or man-made disaster, and who are within the territory of their own country. (p.10)

In the *Handbook for Applying the Guiding Principles on Internal Displacement*, United Nations (OCHA, 1996) defined Internally Displaced Persons as---

persons or groups of persons who have been forced or obliged to flee or leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized

violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border. (p.6)

Thus, the situations of internal displacement reflect simultaneously the situations of human rights violation, marginalization and vulnerability. Situations of violence, conflict, development projects or natural or man-made disasters usually force people to leave their ancestral home, places of residence and force them to seek accommodation in some other places. In the *Handbook for parliamentarians- Internal displacement: Responsibility and action*, it is added that,

Owing to internal displacement, citizens and habitual residents of a country – internally displaced persons (IDPs)–find themselves in situations of extreme vulnerability. They flee conflict, disasters and violence, and while en route their safety and security are particularly at risk. (p.17)

Besides, when IDPs move to the new place, their new settlement may be temporary or for lifelong purposes. The displaced persons are like aliens in such new places. Therefore, the issue of national responsibility to address the requirements of the IDPs appears as a very significant question before the administrators, government officials and countrymen. The corresponding question of social justice for the IDPs is again a serious matter. Minutely observing all the said prospects, the present research examined the question of caring of IDPs and their entitlement and impoverishment risks.

IDPs are obviously a vulnerable section of society, who lives in conditions of landlessness and homelessness. “The plight of the internally displaced has been well documented over the past decade” (<https://www.unhcr.org/4444afce0.pdf>). IDPs have very often economic sustenance, community relations and social security. Generally, they are the victims of both traditional as well as non-traditional security

threats. While they lose their homestead and agricultural land under compulsion, on the other hand, they are left with a very few alternatives to resettle as well as rehabilitate themselves. As the duty of the State is to protect the citizens from the situations of vulnerability and to lead them towards prosperity; the IDPs too desperately need national support.

Hussain explores three categorized form of factors behind internal displacements. They are: i. Displacement due to conflict of any kind, either of ethnic, religious, linguistic etc. ii. Displacement due to development projects and iii. Displacement due to natural or man-made disasters (Hussain, 2008). In all the three situations, the affected persons are ejected from their establishment and such situations force them to settle in some other places either by their own efforts or with the help of the state.

Internally displaced persons experience alienation and exclusion from the larger society. By and large, the IDPs remain outside the public “consciousness” or “imagination” (Hussain, 2006, p.391). Internally displaced persons are normally denied their basic requirement of food, shelter, medicine, educational facilities for children as they have hardly any alternative to resettle their life again. Displacement pushes them in risk like situations within their own country. Thus, they deserve ameliorative attention from the State, international agencies and civil society and seek to address the plight of their homelessness and landlessness.

Internally displaced persons do not have any special legal status. The *United Nations Handbook for Applying the Guiding Principles on Internal Displacement* only offer a descriptive identification to them and ask the States to effectively pursue national responsibility to address requirements of the IDPs. Such situations of internal displacement often raise the issue of human rights violation and may bring forth

questions to international peace and security. Considering the depth of the problem, international community has shown greater interest for the cause of the IDPs. In the words of Hussain (2006) “though technically they are citizens of the country, empirically they are refugees in their own country” (p.391).

Agarwal (2005) explains that legally the issue of internal displacement falls under the domain of sovereignty of their respective countries as well as governments. Only when the respective government requests for assistance from the international community to save the cause of the IDPs, then they can have international support as well as assistance.

As the researcher has already mentioned that IDPs usually live in refugee like situations, but both the situations are different in legal, territorial and international points, because:

- First, the responsibility for the protection of the IDPs rests first and foremost on the local authorities and the national governments as they do not cross international border like refugees. Here, the *United Nations Handbook for Applying the Guiding Principles on Internal Displacement* can be acknowledged. It focuses in its Principle 3(1): “it is not the international community but national authorities that have the primary duty and responsibility to provide protection and humanitarian assistance to internally displaced persons within their jurisdiction” (as cited in *Protecting Internally Displaced Persons: A Manual for Law and Policymakers*, 2008, p.1).

Secondly, international community provides help to national authority only when they ask for international assistance to protect their IDPs. In practice, seeking

international assistance reflects failure of the respective country to protect their citizens. It is nothing but indirect loss of sovereign dignity of the respective country. Here, Nair (2001) highlights that the issue of internal displacement is a “politically sensitive one for sovereign states. Governments are often unwilling to admit to the presence of such populations on their territory, since they are indicative of the state’s failure to protect its citizens” (n.d.). Therefore, the States hardly request for international protection as well as assistance even in a severe situation of internal displacement.

But the need of the hour is that the responsibility of the international community is to see how best it can contribute to enhance the protection of the IDPs in situations of conflicts and crisis. Accordingly, we find the *United Nations Handbook for Applying the Guiding Principles on Internal Displacement* based on the existing international laws and instruments of protecting human rights. These principles provide standard guideline to the government and the international humanitarian and development agencies in providing assistance and protection to IDPs. These principles identify rights of the IDPs and guarantees relevant protection against arbitrary internal displacements. It raises the issues of resettlement and rehabilitation of the IDPs and accordingly, the national authorities bring forth their own resettlement and rehabilitation policies to meet the needs of the IDPs and protect them from situations of human rights violation. Protection of Internally displaced persons is therefore not only a national responsibility rather it involves an international community too.

Internal displacement and consequent IDPs is more or less a national problem. The marginalized group comprising of the riverbank erosion-induced IDPs hardly enjoys

dignified life, because their basic right to life and livelihood are in peril. It admits the need to have appropriate resettlement and rehabilitation schemes executed by the concerned national authority to mitigate the plight of the affected.

Section-IV

2.4 Caring the IDPs: Entitlement approach, resettlement and rehabilitation, and impoverishment risks

Issues of entitlement, resettlement, rehabilitation, and impoverishment risks are the distinct realities associated with the lives of the IDPs. These are the parameters to measure the caring of IDPs. Simply, entitlement refers to one's possession, resettlement implies physical relocation, rehabilitation means restoration of livelihood and impoverishment means to become poor. These issues set forth the questions of one's own physical re-establishment, economic stability and towards a poorer standard of living. IDPs can never be alienated from these issues. Theoretically, entitlement includes one's right to have well defined and dignified living and for that possession over production and distribution is must. Here, considering the issue of IDPs, it can be said that their right to entitlement is none other than access to social justice. Because social justice gives them socio-economic as well as cultural protection and which are their entitled rights. Again, the risk factor implies that the affected people are moving towards a more poverty like situations. As they are landless, homeless, jobless, and deprived of their community lives, the desired standard of living for them becomes impossible. Caring of IDPs significantly appears as an important matter of concern. It is the duty of the concerned authority to prepare as well as implement policies addressing the issues of

resettlement, rehabilitation, entitlement of the IDPs. Riverbank erosion-induced IDPs have similar expectations as like the conflict-induced or development projects-induced IDPs. But, the *National Rehabilitation and Resettlement Policy* (2007) specifically includes the development project-induced IDPs only. Protection of the riverbank erosion-induced IDPs are nowhere mentioned in the policy. Again, due to their shifting, or loss of home, their new establishments hardly treat them as equals. Rather they are defined as aliens and very few of them are able to achieve at least something from the corresponding bodies. Their citizenship rights are often ignored because they have fewer resources for claim. Hence, it is the vital need to entitle these deprived sections with minimum socio-economic standard of living. Considering these issues, our research, therefore, tends to study the problems and prospects associated with the questions of resettlement, rehabilitation, entitlements and impoverishment risks of the riverbank erosion-induced IDPs. Actually, in case of resettlement, the major challenges are requirements for restoring income based on land or resources, the need to avoid compromising the social and cultural continuity of the affected communities, etc. The considerable problem regarding resettlement and rehabilitation in this regard are that the concerned authority put emphasis only on physical resettlement rather than restoration of livelihood means, i.e. income source, cash compensation (which is very meager) often not sufficient for the victims to buy another piece of land, etc. However, the policy of giving land is not always feasible as land is a scarce resource. Besides, resettlement policies hardly recognize the loss of common property resources which are very important assets for the poor people. The women as the 'weak and vulnerable section' (Agarwal, 2005, p.99) always find difficulty in enjoying equal status in comparison to their male

counterpart in the situation of displacement too. In the sites of resettlement women normally face the problem of sanitation, hygienic medical care facilities etc. which are essential pre-requisites for a standard living.

In India, the issue of resettlement and rehabilitation has not been taken seriously by the State and consequently, the IDPs remain a neglected and vulnerable community. The Government of India formulated “Draft National Rehabilitation Policy” (NRP) in 2006 and emphasized on the point of compensating the displaced population, considering the development model of India and exclusively its related displacement issue. This draft was again revised in 2007 and The *National Rehabilitation and Resettlement Policy, 2007* had been framed on the line of NRP 2006. Finally, on October, 2007, the *National Rehabilitation and Resettlement Policy* (NRRP) had been approved by the government of India to attain the basic objectives to minimize displacement and to promote, as far as possible, non-displacing or least-displacing alternatives, and to provide a better standard of living, making concerted efforts for providing sustainable income to the affected families (NRRP, 2007).

In the PART-I-SEC. 1, the policy defines the "affected family" as

(i) a family whose primary place of residence or other property or source of livelihood is adversely affected by the acquisition of land for a project or involuntary displacement for any other reason; or (ii) any tenure holder, tenant, lessee or owner of other property, who on account of acquisition of land (including plot in the abadi or other property) in the affected area or otherwise, has been involuntarily displaced from such land or other property; or (iii) any agricultural or non-agricultural labourer, landless person (not having homestead land, agricultural land, or either homestead or agricultural land), rural artisan, small trader or self-employed person, who has been residing or engaged in any trade, business, occupation or vocation

continuously for a period of not less than three years preceding the date of declaration of the affected area, and who has been deprived of earning his livelihood or alienated wholly or substantially from the main source of his trade, business, occupation or vocation because of the acquisition of land in the affected area or being involuntarily displaced for any other reason. (NRRP, 2007, p.36)

The policy opts for appointment of "Administrator for Rehabilitation and Resettlement", an officer not below the rank of District Collector in a State, appointed for the purpose of rehabilitation and resettlement of affected persons (NRRP, 2007, pp.41-44), and secondly, the "Commissioner for Rehabilitation and Resettlement means the Commissioner for Rehabilitation and Resettlement appointed by the State Government not below the rank of Commissioner' or of equivalent rank of that Government" (NRRP, 2007, p.37).

But, it is crucial that the national policy does not incorporate the word natural disaster or ethnic conflict related factors that also cause a huge amount of population displacement in comparison to the development projects. Therefore, natural disaster-induced displacements i.e. displacement caused by riverbank erosion, flood, cyclone, etc. and their related issues of resettlement and rehabilitation are almost out of coverage area of the national policy ambit. Rather this policy includes the word 'project-induced displacement' or any other involuntary displacements. So, it is somewhat pathetic on the part of the victims of riverbank erosion, as they fail to get benefits from the national level policy measures. Accordingly, they have to cope with the situations of marginalization and impoverishment in real sense of the term.

2.5 The Interrelation: State, Society and Citizenship

Moreover, the State, society and citizenship are three interrelated aspects of any socio-political structure. The entity of the State substantively relates to its citizens. It

means every function of the State has to consider the well-being of its citizens. The focal point of society is also its members who are the citizens in the broader sense. Therefore, all these three aspects are interlinked with one another. Fundamentally, the concept of citizenship denotes all people who are entitled to protection from the State. By this definition, it can be developed that the persons displaced by riverbank erosion are also citizens who are very much entitled to protection from the State. The State is the most significant and legitimate political institution which exists in every society today to diagnose and address the problems of its citizens. The situations of vulnerability as well as deprivation of these people and restoration of their rights and justice are very much a question before the State as well as the society. Society is the platform which tries to address the demands of the deprived citizens including the IDPs. Hence, there is a close relationship between the aspects of citizenship and their deprivation, with which the question of rights and justice are inseparably related. At this critical juncture, one has to locate the role of the State and the society, mostly the civil society. Here, the fundamental role of civil society is to address the grievances of its members and to derive attention from the State to work for the welfare of its subjects. There exists an inter linkage between the society and the State and both these structures should work for the fulfillment of the prime necessities of its people, who are the rightful citizens.

After a detailed discussion about the theoretical framework associated with our study in this chapter, the researcher is now going to explain the universe of our study from spatial, geographical and socio-economic perspectives in the next chapter.

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Chapter III

Study of the Universe: A Spatial and Socio-Economic Analysis

To attain qualitative standard, every research requires primary verification of data. For primary verification of our research formulation, the researcher has undertaken a specific geographical area for the primary study. The spatial universe of the present study includes two areas. These are the Laharighat area under the Morigaon district and the Rohmoriam area under the Dibrugarh district of Assam. This chapter is divided into three sections. *Section I* offers a detailed explanation about the physical characteristics of the study area. It includes the introduction, physiography and drainage, geology and seismology, soil quality, climate, natural vegetation and spatial location of the study area. *Section II* incorporates the demographic profile of the study area and *section III* examines the socio-economic standard of living of the respondents of the universe of our study. Therefore, this chapter contains a broad overview of all the socio-economic as well as physical characteristics of Laharighat and Rohmoriam areas. This is appropriately a kind of open discussion regarding the universe in order to locate the problem of riverbank erosion of the affected people and to familiarize with their spatial and socio-economic conditions.

Section-I

3.1 Introduction of the Study Area

Assam, with a unique geographic and demographic composition, is our area of research in general. The universe includes Laharighat area of Morigaon district and

Rohmoria area of Dibrugarh district in particular. The researcher has undertaken the study of both Morigaon as well as Dibrugarh districts, specially its riverbank erosion affected areas. In order to comprehend the aspects of riverbank erosion and its devastation and socio-economic impact on the affected community, it is essential to know about the spatial, soil and climatic significances of the area. The present chapter discusses these issues and tries to find out the unexplored aspects associated with the riverbank erosion-induced IDPs of the aforesaid areas.

It aims at identifying the situation of Assam in general to understand the adverse affects of erosion in different places of Assam. Located in the south of the eastern Himalayas, Assam comprises of the Brahmaputra and the Barak river valleys and the Karbi Anglong and the North Cachar Hills. Assam is the center point of the North-Eastern Region of India comprising of mostly Assamese, Bengali, Bodo and Hindi speaking population. As per Census Records, 2001, the Boro, Miri, Mikir, Rabha, Kachari, Lalung, Dimasa, Deori are the major Scheduled Tribes population of the State (https://censusindia.gov.in/Tables_Published/SCST/dh_st_assam.pdf). The major religious groups of Assam are Hindu, Muslim, Christian, Sikh, Buddhist and Jain as per the Assam Religious Census, 2011 (<https://www.census2011.co.in/data/religion/state/18-assam.html>). Assam is a vast entity of the North-East India with 78,438 sq. km. area and 22,414,322 persons in 1991. Subsequently, the population grows to 26,655,528 in 2001 and 31,169,272 in 2011 as recorded in Census reports (Administrative Atlas, Assam, 1991, 2001, p.22 & Administrative Atlas, Assam, 2011, p.22).

Physiographically, Assam is a land of mountains, valleys, hills and rivers. It has the following physiographic units: the Brahmaputra valley, the Barak valley, the Karbi

Plateau and the Barail and Southern Hills (Bhagabati, Bora & Kar, 2001). Geographically while looking at the boundaries of Assam, the State “is the gateway to the North East India is the largest State in the North East is bordering seven states viz. Arunachal Pradesh, Monipur, Meghalaya, Mizoram, Nagaland, Tripura and West Bengal and two countries viz. Bangladesh & Bhutan” (<https://des.assam.gov.in/portlets/assam-at-a-glance>).

Regarding the combination of the various ethnic and cultural sections, it is observed that Assam is the “meeting ground of diverse ethnic and cultural streams. People from various traits, including Austro-Asiatics, Dravidians, Tibeto-Burmans, Mongoloids and Aryans have all made Assam their home, enriching the people of the state” (<https://ncert.nic.in/pdf/publication/otherpublications/tine101.pdf>).

Considering the physiographic characters, Gogoi (n.d.) reveals that,

Based on the flow of Brahmaputra River, the entire state of Assam can be divided into two parts Upper and Lower Assam. The Barak or Surama Valley is the second natural division of Assam, dominated by the Barak River. The Brahmaputra is a trans-boundary river which flows through China, India and Bangladesh. (Gogoi, Regions of Assam)

While talking about the major river of the valley, Brahmaputra, The Water Resources Department of Assam holds that it “is one of the largest rivers in the world and rank fifth with respect to its average discharge. The catchments area of Brahmaputra in India and Bhutan is 2,40,000 Sq. The average width of Brahmaputra is 5.46 Km” (<https://waterresources.assam.gov.in/portlet-innerpage/brahmaputra-river-system>).

Another discussion also highlights that the “Brahmaputra is well-known for floods, channel shifting and bank erosion. This is due to the fact that most of its tributaries are large, and bring large quantity of sediments owing to heavy rainfall in its catchment area” (Anwar, 2018, p. n.d.).

Another study explains that after the great earthquake of 1897 and 1950, significant change occurred in the fluvial regime of the Brahmaputra. It resulted in accumulation of enormous siltation in the river bed and subsequently increased the intensity of flood and erosion problems to a greater extent (Bora & Borah, 2019). Again, Deka (2019) explores that,

The rise of river beds, changes in river courses, shifting of river banks and huge landslides/rockfalls in upper catchment areas after these two earthquakes together aggravated the silt deposition on the river beds reducing the water retaining capacity of the Brahmaputra and its tributaries during summer high flows and thus caused flood and erosion havoc in the downstream (p.49).

Thus, the above discussions reveals that physiographic features of Assam are mostly associated with the river Brahmaputra. Again, Deka (2019) identifies the physical causes of flood and erosion in Assam, specially in the Brahmaputra valley, marked by a number of issues i.e. geographic setting of the valley, high potential monsoon rainfall, fragile geological structure, braiding and meandering patterns of the rivers, accelerated rate of basin erosion and excessive siltation, high seismicity, etc. (p.46). Hence, one can develop that the river Brahmaputra is primarily responsible for the soil quality, climate, vegetation, drainage system of Assam. Taher and Ahmed (2012) write that the river Brahmaputra has been “shifting slowly southward” (p.82). According to them, most of its tributaries are also shifting-eastward, westward and

some towards south. Such shifts slowly come about through bank erosion in every rainy season.

Thus, from the above discussion, it is found that the physical characters of Assam are mostly seen with the issues of flood and erosion. Both of the sample areas of this research are suffering from severe bank erosion. To comprehend this aspect the researcher now moves to study the location of both Morigaon district and Dibrugarh district respectively.

The core of our study location is the Laharighat area under the Morigaon district and Rohmoria area under the Dibrugarh district of Assam. Both the places spatially fall under the south bank of the river Brahmaputra in Assam. The Census Records 2011 explores that Morigaon district is located between $26^{\circ}03'00''$ and $26^{\circ}30'45''$ North Latitudes and $91^{\circ}58'00''$ and $92^{\circ}35'00''$ East Longitudes. It is bounded on the north by Darrang and Sonitpur districts (part), Karbi Anglong district and the State of Meghalaya (part) on the south and on the west Kamrup Metropolitan district. The eastern boarder of the district is bounded by the Nagaon district (Administrative Atlas, Census of India, 2011, p.104).

Again, the Census Records, 2011 shows that Dibrugarh district is located in the North Eastern part of Assam between North Latitudes $27^{\circ} 05' 00''$ and $27^{\circ} 42' 15''$ and East longitudes $94^{\circ} 33' 30''$ and $96^{\circ} 29' 30''$. The district is bounded on the north by Dhemaji district, on the east by Tinsukia district, the State of Arunachal Pradesh on the south and Sivsagar district and on the west by Lakhimpur and Jorhat districts (Administrative Atlas, Census of India, 2011, p.242). Thus, the study area of the present research work, i.e. Laharighat and Rohmoria, can be spatially described as

riverine plain in the south bank of the river Brahmaputra that fall under the Morigaon and Dibrugarh districts of Assam.

3.2 Physiography and Drainage of the Study Area

Bhagabati et.al. (2001) have explored that the present physiographic configuration of Assam has taken its shape only during the recent geological time (p.19). On the issue of physiographic division of Assam, According to Bhattacharyya (2005),

Assam observes the following four physiographic divisions—The Brahmaputra Valley is the extension of the Indo-Gangetic plains, while Karbi-Anglong is essentially a part of the Meghalaya Plateau which is an outlier of Peninsular India, North Cachar hills belong to the Extra-Peninsular Mountain and Barak plain is an extension of the Surma valley. (p.132)

On similar point, it is found that “The Brahmaputra valley in its east-west direction has four distinct physiographic units, *viz.* the northern foothills, the north and south bank plains, the floodplain and *char* lands, and the southern foothills” (Bhagabati et. al., 2001, p.21). Taher and Ahmed (2012) explain that the Brahmaputra plain has been “built up as a result of deposition of alluvial materials on the early Tertiary and Mesozoic bed rocks of the depressions that had come into existence in this region due to tectonic disturbances” (p.14).

While discussing about physiographic characters, it can also be admitted that Assam is marked by varied characters, for example the “floodplains, marshes, beels, scattered hillocks, folded hill ranges and old plateaus. Again, the erosion and depositional process intensified by heavy rainfall and frequent seismic movements plays dominant role in constructing the physiography of the State” (<https://www.assams.info/assam/physiography-of-assam>).

Addressing the issue of flood prone area, The Water Resources Department of Assam explores that “the flood prone area of the state is 31,500.00 Sq Km. It is about 39.58 % of the total land area of Assam. This is about 9.40% of total flood prone area of the whole country” (<https://waterresources.assam.gov.in/portlets/river-system-of-assam>).

The Brahmaputra and the Barak systems are the two major river systems drained through the entire Assam. The ENVIS Centre, Assam (Status of Environment and Related Issues) reports that the Brahmaputra “river system drains a unique physical setting of diverse environments, such as cold, dry plateau in Tibet, the steep rain-drenched slopes of the Himalayas, the land locked alluvial plain in Assam and vast deltaic plain in Bangladesh” (http://asmenvis.nic.in/Database/Rivers_1049.aspx).

Besides, Assam is distinct in terms of its geographic location and physiographic characters marked by hills, plain areas, river systems and climatic features. In Assam, the river Brahmaputra is the highly active and exceptional in water as well as in its sediment transportation. Besides, southward migration is seen as another nature of the river Brahmaputra. The Brahmaputra is flowing in the plains of Assam from east to west direction for a distance of 640 km. upto the Bangladesh border. Moreover, most of the tributaries “before meeting the Brahmaputra flow sub-parallelly from east to west in their lower courses because of incipient levee deposition on both of its banks” (Bhagabati et. al. 2001, pp.36-38).

Considering the Brahmaputra Basin, Goswami (1985) opines that,

The current high rate of denudation of the Himalayas may be attributed mainly to the rapid uplift of the mountain system, recent earthquake activity,

and high susceptibility of geologic formations to erosion by running water coupled with the effectiveness of the monsoon rainfall regime. (pp.959-978)

Significant here to mention that, both of our study areas are under the south bank of the river Brahmaputra and reflect some common physical features. According to Bhattacharyya (2005),

Mostly, the south bank plain comprises of a series of terraces along the foothills of the Patkai and Naga Hills. These terraces are replaced by a series of swamps and *beels* in the foothills of the Meghalaya plateau. The middle plain of the south bank lies to the north of the foothills terraces and swampy lands. This is the most densely settled plains with paddy field, vegetables and tea gardens. The monotony of the flood plains of the valley is broken by occasional hillocks and river levees on both the banks of the Brahmaputra. (p.133)

Besides, another important geomorphological character of the Brahmaputra valley is the occurrence of a considerable “number of isolated hillocks or monadnocks on both the banks of the river, right from Tezpur and Mikir hills to as far west as Dhubri, detached from the Meghalaya plateau by the degradational work of the river”(Singh, 2006, p.307).

Considering the physical character of the Morigaon district, the Administrative Atlas, Assam (2011) incorporates that,

The area is fringing on the south bank of the Brahmaputra River which causes deep floods and creates wide stretches of marshy lands. On the south-east the low ridges of the Karbi-hills cut cross the boundary of the two districts of Morigaon and Karbi-Anglong. The Brahmaputra is the main river flowing in the East-West direction along the northern boundary of the district which drains the region. Apart from this, the large part of the district is a fertile alluvial plain and drained by numerous rivers and streams. On the

Southern part of the district the Khasi and Jaintia hills are extended. The topography is composed of undulating hills (p.104).

Again, the district “is drained by several perennial rivers flowing from south to north. Rivers Kalong and Kopili are two most important rivers” (The Ground Water Information Booklet, Morigaon District, 2013, p.5).

Almost all the rivers in the Morigaon district are perennial. The river Brahmaputra has become sluggish in this part because of its low gradient, enormous loads of the sediments are deposited in its course resulting in the formation of numerous bars and islands locally known as “*chars or chaporis*”(Sharma, 1993, pp. 23-31).

Considering the physiography and soil quality of Dibrugarh district, it is apparent that the district is located at the “south bank of the river Brahmaputra. The greater part of the district is alluvial plain formed by the deposition of the Brahmaputra River. In the adjoining areas of Arunachal Pradesh some undulating topography of low hills is present” (Administrative Atlas, Assam, 2011, p.242).

Considering the Brahmaputra river at Dibrugarh, Khullar (2006) opines that “the river is nearly 16 km. wide at Dibrugarh and forms many seasonal river-islands”(p.86).

3.3 Geology and Seismology of the Study Area

Assam contains certain special geological features. Regarding the geological aspects Bhagabati et.al. (2001) admits that,

Assam occupies a distinctive position belonging to the Archaean, Pre-Cambrian, Tertiary, and Quaternary periods. Considering geologic history, the formations in Assam may be broadly classified into five. They include the Archaean group of rocks, the Pre-Cambrian rocks, the Lower Tertiary

sediments, the Upper Tertiary sediments and the Quaternary alluvial sediments (p.18).

The Ground Water Information Booklet, Morigaon District (2013) reveals that,

The district comprises of two distinct geological formations. The oldest Archaean rocks comprising Biotite-Hornblende gneisses and schist are intruded by granite with pegmatite veins. The unconsolidated alluvial sediments occupy the major part of the district. On northern part along the river Brahmaputra, the sediments comprise fine grained nature with occasional gravel beds of pebbles and represent its silty nature. It represents younger alluvial sediments. They comprise sands of various grades with bands of silt and clay along the river Kalong and Kopili representing older alluvial sediments. (p.6)

In Dibrugarh district “the tertiary sediments like sandstone, sandy shales and siltstones are found, deposited during the Oligocene-Miocene-Pliocene periods (Bhagabati et.al. 2001, p.18). The Ground Water Information Booklet, Dibrugarh District, 2013, released that “unconsolidated alluvial deposits of Quaternary Age covers major part of the district. Only about 4 % area of the district is underlain by semi- consolidated formation of Tertiary Age belongs to Disang and Barail Groups of rock” (p.4).

Actually, whole State of Assam is under an active tectonic zone. Seismic event like earthquake is a quite common phenomenon for this region as a whole as well as for the study area. The most important earthquakes that severely affected the study area are the earthquakes of 1897 and 1950. Notable here is that the earthquake of 1950 raised the bed level of the Brahmaputra at Dibrugarh by “at least three metres, reducing water holding capacity leading to increased flood and erosion hazard potential of the river” (Bhagabati et. al. 2001, p.17).

3.4 Soil Quality of the Study Area

The soil of Assam contains a number of characters. Regarding the type of soil of Assam (Bhagabati et. al. 2001) wrote that,

Alluvial soils, piedmont soils, hills soils and lateritic soils are the four major categories of soil available in Assam. The alluvial soils are extensively distributed over the Brahmaputra and Barak plain and highly fertile in nature. They are of two types, the younger and the older alluvium (p.27).

According to Taher and Ahmed (2012), “in Assam, we find alluvial soil over the plains, red soil in most of Karbi Anglong and North Cachar hills and only patches of laterite over the highest parts in their hill ridges” (p.60).

The ENVIS Centre, Assam, on soil resources, records that

Soils of Assam are very rich in content of nitrogen and organic matter. The well drained, deep, acidic alluvial soils of upper Assam with good proportion of phosphoric content are mostly suitable for the plantation. New alluvial soils occurring in the charlands of the Brahmaputra are most suitable for growing oil seeds, pulses and rabi crops. (http://asmenvis.nic.in/Database/Soil_1048.aspx)

While talking about Dibrugarh district, the two different land forms are found. They are first, flood plain of Brahmaputra river and secondly, the terrace deposits and denudational hills in the southern part (The Ground Water Information Booklet, Dibrugarh District, 2013, p.4). Besides, the three types of the soils of the district are “sandy to clayey loam type and grayish is color. Based on pedogenic and pedological characters, a) Recent riverine alluvial soils b) Old riverine alluvial soils c) Old mountain valley alluvial soils” (The Ground Water Information Booklet, Dibrugarh District, 2013, p.4).

The Ground Water Information Booklet, Morigaon District (2013) incorporates that,

the distinct hydro geological set-ups prevail in the Morigaon district– the older alluvium and younger alluvium. The first set up is older alluvium surrounding inselbergs and along the foot hill part on south. It comprises clay, silt and various grades of sand. The second set up is younger alluvium with freshness in colour and grain size covers major part of the district on north. It consists of sand, fine to course grained in texture with intermixed gravels and pebbles along with clay and silt. (pp.6-7)

Talking about the soil degradation problems of Assam, it is found that

The soil of Assam also suffers from a number of soil degradation problems like heavy erosion in the hill slopes, flooding and water logging in the low-lying areas and high acidic nature of the soils. Besides, most of the soils of Assam, irrespective of their types, are acidic in nature which leads to chemical degradation of soils. (Bhagabati et. al. 2001, p.30)

Floodplain is mainly the product of stream depositional process. As our study area is the floodplain of the river Brahmaputra, so it obviously envoys characters of alluvial soil quality. Practically, Singh (2006) observes that,

The new alluvial soils are mostly found in the riparian tracts of the valley and are subject to annual floods, and renewal. They are suitable for the cultivation of rice, jute, pulses, mustard, potato and vegetables. Besides, in the upper Assam valley, there is the availability of old alluvial soils. These are acidic in character and very suitable for tea plantation. (Singh, 2006, pp.313-314)

Here, the present study reveals the fact that the soil quality of Laharighat area of Morigaon district is of new alluvial type as it is in riparian tract. Again, the soil quality of Rohmoría area of Dibrugarh district is a combination of both old and new alluvial type. As Rohmoría is also in riparian tract, so it has new alluvial soil

components and on the other hand, as the area is found conducive for tea cultivation, therefore, it also has old alluvial soil composition. As the new alluvial soil is more prone to bank erosion than the old alluvial soil, therefore, the rate of erosion is higher in Laharighat than the Rohmoría area. Although, the amount of land eroded in Rohmoría area also cannot be overlooked.

3.5 Climate of the Study Area

As regards to the climate of the study area, according to Bhattacharyya (2005),

North East India is mostly dominated by Monsoon climate which implies a climate with cool dry season in December to February, a hot season from March to June, a hot wet season from July to September and a retreating monsoon season from October to November. (p.19)

On the similar context, Taher and Ahmed (2012) reports that, “being within the monsoon belt of the South and South-East Asia, the region is under the tropical monsoon climate” (p.46).

Considering the case of Assam, it is observed that “Assam lies in the regime of monsoon climate of the sub-tropical belt. It enjoys heavy summer rainfall, winter drought, high humidity and relatively low temperature during a year” (Bhagabati et. al. 2001, p.30).

Again, Bhattacharyya (2005) incorporates that,

The climate of Assam shows slight modification of the normal monsoon type, the hot season being shorter than in other parts of India with low average temperature and high average rainfall and humidity. The average summer temperature lies between 30⁰C to 33⁰ C while the winter temperature ranges 6⁰ C to 13⁰ C. (p.139)

The Department of Environment, Government of Assam, in Assam State Action Plan on Climate Change, 2015-2020, reports that,

With "Tropical Monsoon Rainforest Climate", Assam is temperate and experiences heavy rainfall and high humidity. The climate is characterized by heavy monsoon downpours, which reduce summer temperatures, enable formation of foggy nights and mornings in winters. Spring (March–April) and autumn (September–October) are usually pleasant with moderate rainfall and temperature. (p.15)

Considering the climate of Morigaon district, The Ground Water Information Booklet, Morigaon District (2013), reports that the “district has sub-tropical and humid type of climate. The humidity data reveal that the air is humid throughout the year” (p.4). Again, while talking about the Dibrugarh district, the climate “is sub-tropical wet and is characterized by hot and humid summer and dry cool winter” (The Ground Water Information Booklet, Dibrugarh District, 2013, p.3).

3.6 Natural Vegetation and Fauna of the Study Area

Natural vegetation and fauna of a particular area is marked by the soil quality, climate and hydrology of the area. The North East region of India including Assam is one of the richest regions of biodiversity in India as well as in the world. The State Biodiversity Board, Assam in 2013, in its report, *Glimpses of Biodiversity in Assam*, explains that “broadly, the climate of Assam is sub-tropical with heavy rainfall and humidity which supports various habitats such as rainforests, riverine grasslands, bamboo thickets and wetland ecosystems” (<http://www.asbb.gov.in/booklets/Glimpses-of-biodiversity.pdf>, p.1).

In the point of biodiversity of Assam, the Environment and Forest Department, Government of Assam, publishes that Assam is a part of the Eastern Himalayan Biodiversity Region. “The climatic condition and wide variety in physical features witnessed in Assam have resulted in a diversity of ecological habitats such as forests, grasslands, wetlands, which harbor and sustain wide ranging floral and faunal species”. (<https://environmentandforest.assam.gov.in/portlets/biodiversity-of-assam-0>).

Further, talking about natural vegetation and animal species in Assam, there are

3010 species of flowering plants of which 347 have medicinal properties. The State has 102 endemic and restricted range plants, 182 species of orchids, 42 species of bamboos and 14 species of cane. The faunal diversity of Assam has 193 species of mammals including 10 species of primates, more than 820 species and subspecies of birds, 185 species of fish, 405 species of butterflies, 115 species of reptiles, 46 species of amphibians and 39 species of snails (<http://www.asbb.gov.in/booklets/Glimpses-of-biodiversity.pdf>, p.1).

There are the availability of three categories of forests in Assam, namely, evergreen, deciduous and swamp in Assam (Mahapatra, Barik & Rao, 2000). “The recorded forest area of Assam is 26,832 sq km accounting for 34.21% of its geographical area” (<https://forest.assam.gov.in/information-services/forest-types-in-assam#:~:text=The%20recorded%20forest%20area%20of,of%20the%20total%20forest%20area>).

According to the records of Environment and Forest, Government of Assam, tropical wet evergreen forests are found in Dibrugarh districts and Hollong, Borpat, Jutuli, Sam, Dewa sam, Nahar, Teeta chap, Bhelu, Mekai etc. are the notable trees found in

this area. Tropical semi evergreen forests are found in Morigaon district. These forests have mostly medium size trees with few large trees. Shrubs, lianas, climbers, orchids and ferns grow copiously. At the fringe bamboos and canes occupy the space (<https://environmentandforest.assam.gov.in/portlets/biodiversity-of-assam-0>).

During the field Study, 2018, In the name of vegetation, some economically very important trees like *Agaru, Teak Sal, Neem, Champa*, tea and bamboo are seen in the universe of the study. In Morigaon, generally the soft wooded trees like *Simolu, Karoi, Kadam, Jamu, Urium, Poma, Khoir*, in wet lands-*Ulu, Khagari, Nal* etc. are available. The Dibrugarh area too has similar vegetation, but some plants like Tea, Rubber, *Sirish, Puma* are often seen.

Again, Bhagabati, et. al. (2001) opines that the soil quality and climate of the Morigaon district mostly support the cultivation of rice, “more specially Boro rice” p.176), jute, bamboo, cane, pulses, rape and mustard (pp.170-176, p.230), while, Dibrugarh district is “unique in tea production” (p.231).

Besides, it is important to note that Boro rice has gained increasing popularity among the farmers of the chronically flood affected areas, where Sali rice generally gets damaged by floods. (Bhagabati, et.al. 2001, p.176). Consequently, Morigaon shows a much better position in its cultivation “as there is the presence of large number of wetlands” provides suitable place for its cultivation (Bhagabati, et. al. 2001, p.176).

The Ground Water Information Booklet, Morigaon District, 2013, highlighted that the soil of the district is very much suitable for production of all seasonal paddy and

other *rabi* and horticultural crops. “Among the crops, various food crops, fibre crops, pulse, oil seeds, spices, horticultural crops and almost all types of vegetables are produced in the district” (p.6). Again, it is reported that paddy is the major cereal crop and sugarcane is the major cash crop in Morigaon district. ‘Banana and Mango’ are among the major fruits grown in the district. ‘Guava and Assam lemon’ are also produced in large quantity in Morigaon district (District Irrigation Plan, 2016-2021 Morigaon, Assam, pp.19-20). “About 80% of the rural population directly depends on agriculture for their livelihood” in Morigaon district (District Irrigation Plan, 2016-2021 Morigaon, Assam, p. 17).

Eighty percent (80%) of the people of the Dibrugarh district “are either agriculturists or engaged in related activities” (District Ground Water Information Booklet, Dibrugarh, 2013, p.4). Paddy is the dominant crop of this area and is grown in low land area while high land supports a good number of tea gardens. Other crops of the district are gram, tur, jute, mesta, mustard etc (Ground Water Information Booklet, 2013, Dibrugarh).

Again, Assam accommodates a huge number of animal species as well. According to Taher and Ahmed (2007) the types of mammals like elephant, one horned rhinoceros, deer, buffalo etc., are rich fauna properties of Assam. Rich reptile population like turtle, tortoise, varieties of chameleons, lizards and snakes are also present. Jackals, squirrels, snakes, rabbits etc. are commonly seen in the area. Storks, parrots, doves, crows, owls, cuckoos, starling, and ducks, are among the various kinds of birds. The fauna varieties include a large number of fish varieties in the study area as the area is near to the river and river is the source of most of the fish varieties.

The above discussion showed the rich vegetation and varied species available in Assam enriching the nature and bio-diversity of the State.

After a detailed study on the physiographic, climatic and soil characteristics of Assam in general and Morigaon and Dibrugarh districts in particular, the researcher now proceed to the study of the spatial location, demographic and socio-economic profile of the universe of study.

3.7 Spatial Location of the Study Area

The study area of the present research covers two Revenue Circles from the already said two districts of Assam. Again, our sample villages of Morigaon district are the *Sialmari* and the *Pambori gaon*. They are administratively under the Laharighat Development Block of the Laharighat Revenue Circle. Laharighat Circle is situated at a distance of around 27 km. North from Morigaon town. From the Dibrugarh district, we have selected the *Kasuwani* and the *Maijan gaon* of the Rohmorja Development Block under the Chabua Revenue Circle. Considering the case of Rohmorja, it is located at a distance of 23 km. to the East of Dibrugarh Town. The Laharighat Circle had a total of 99 and the Chabua Circle had 119 villages as recorded in Census 2011.

Sialmari gaon was situated at a distance of 3 to 4 km. north and *Pambori gaon* was located at a distance of 3 km. at the north-west direction from the Laharighat Circle Office. The Revenue Circle Office informed during our field study that *Sialmari gaon* was in the list of fully eroded villages and *Pambori* was in partially eroded type till 2016. But during the last field visit in 2020, the Circle Office incorporated *Pambori* too in the list of fully eroded villages. Again, the researcher found 30

families of *Sialmari* in *Kathoni gaon* and 35 families of *Pambori*, in *Pachim Chenimari gaon* in 2018 and they were 48 and 56 in 2020.

Names of the two sample villages in Dibrugarh district are *Maijan* and *Kasuwani gaon* under the Lahowal Block of Chabua Circle. Spatially, *Maijan* and *Kasuwani*, both the villages are situated at the north direction from the Chabua Circle Office and at a distance of 16 km and 18 km respectively. During the field study in July, 2018, the researcher could trace out only 14 families in the present *Kasuwani* village. Another 33 families were found in *Kasuwani Pathar gaon* and 15 families in *Udalguri gaon*. In totality, the researcher identified $(14+33+15) = 62$ families of *Kasuwani gaon*. Regarding the 15 respondent families of *Udalguri gaon*, the Chabua Circle Office informed the researcher that a total of 28 families of *Kasuwani gaon* got settlement in *Udalguri gaon*. But from the *Gaon Burah* of the village and from the field observation, the researcher found 15 families, who are from the *Kasuwani* village and got rehabilitated by the government in *Udalguri* village in 2010. *Maijan*, the another sample village of Dibrugarh district gave settlement to 42 erosion affected families of *Garpara* village. It is noteworthy to mention that, *Maijan* village never witnessed erosion, but it gave settlement to the erosion affected families from other villages. The local people told that in *Maijan* 107 erosion affected families were settled, but out of those, only 42 families of *Garpara* village were rehabilitated by the government in 2000. Other families got settled by themselves in the *Maijan* village. In addition to it, during the field study in 2020, the researcher found 19 families in *Kasuwani gaon*, 15 and 33 riverbank erosion affected families of originally *Kasuwani gaon* in *Udalguri gaon*, and *Kasuwani Pathar gaon* respectively. Again, 40 erosion affected families of *Garpara* were found in *Maijan gaon*.

Section-II

3.8 Demographic Profile of the Study Area

Demography is the quantitative study of human population. Births, deaths and migrations bring changes in its composition and nature. Assam comprised diverse socio-cultural and ethnic components. Goswami (2013) admitted that “Assam witnessed a migratory flow since long past and therefore is linguistically and ethnically the most diversified State in India and even in the world context, such diversity in the composition of a population is rare” (pp.113-114). Major components of its social mosaic are Hindu and Muslims. In terms of language, the major indigenous linguistic group is the Assamese. The Scheduled Caste and Scheduled Tribe population represent 7.15% (<https://socialjustice.nic.in/UserView/index?mid=76663>) and 12.45% (<https://www.censusindia2011.com/assam-population.html#:~:text=The%20total%20area%20of%20Assam,of%20total%20population%20in%20Assam.>) respectively in the Census report, 2011. Assam recorded 16.93% decadal growth rate of population between 2001 and 2011 (Administrative Atlas, Assam, Census of India, 2011, p.22). Again in 2011 Census records, 61.47% Hindus, 34.22% Muslims, 3.7% Christians were found among the Scheduled Tribe (ST) population in Assam. The total ST population was around 13% in which Bodos accounted for 40% in the State.

The universe of the study, i.e. Laharighat area in Morigaon district is demographically comprised of a number of communities i.e. *Koch-Rajbongshi, Kaibarta and Kumar*. In addition, Muslims are mostly found in the riverside of the Circle, (i.e.) in the sample areas of Laharighat. In 2011 Census Records, the Circle

had a total of 46105 households and 253582 persons. Out of the total population, the Circle had 29.32% total workers and 70.67% non-workers including the children below 6 years of age group.

Besides, the Rohmoriam area is populated mostly by the *Brahmin, Goswami, Kalita, Ahom, Chutia, Matak, Maran, Mishings* and a few numbers of *Adivasi* people, working in tea gardens. Significantly, in our sample villages, we have found mostly *Ahom, Maran, Adivasi* and a few *Bihari* population. Again, the Chabua Circle had 32442 numbers of households with a total population of 159585 numbers. Out of the total population, the Circle comprised of 39.85% total workers and 60.14% non-workers including the children below 6 years of age group according to 2011 Census Report.

Section III

3.9 Socio-Economic Profile of the Study Area

Socio-economic lives of the people of Assam are largely dependent on agriculture. In Morigaon district, people are mainly associated with cultivation of rice, pulses, cane, and jute. Fishing is the main source of livelihood for a larger group. The embankments near the river Brahmaputra are the place for habitation for a quite large number of riverbank erosion-induced IDPs of Laharighat. They had lost their land, livelihood, community support and other related amenities due to riverbank erosion. The male members of most of such families are engaged as rickshaw pullers, thela pullers, daily wage workers, etc. in their locality or in some affluent areas of Assam, Arunachal Pradesh and outside North Eastern Region too.

The study area of the present research work comprised of only the rural population. There was the visibility of a small number of economically sustained families, where the bread earners of the family were pursuing any pity government, semi-government job or work in any company. In Laharighat area, the socio-economic condition, educational status, life expectancy, standards of living etc. of the people of the sample areas are comparatively weaker in comparison to those living in the sample areas of Rohmoria. Almost all the families in Rohmoria had a plot of small tea garden as an additional source of their livelihood.

Socio-economic lives of the study area can be analysed in terms of the main workers of the total population. According to Census records (2011), the *Sialmari gaon* had the total number of 33 households with the total population 200. Among them, total workers were 49.5%, main workers 28%, marginal workers 21.5% and non-workers 50.5%. Again, literacy rate was 33.5%. Here, illiterates were of 66.5%. But during the field study in 2018, the researcher found only 30 families of *Sialmari gaon* settled in *Kathoni gaon* with a total of 203 persons, wherein the researcher found 49.7% main workers. The researcher had also found 0.49% graduates, 5.91% under graduates, 33.49% below (High School Leaving Certificate Examination) H.S.L.C. level and 60.09% illiterates.

So far as the information drawn from the Census of India, 2011, another sample village *Pambori gaon* was recorded with a total household of 104 and total population of 551. Total workers of the village were 25.58% with 23.95% main workers and marginal workers were 1.63%. Non-workers of the village were 74.41%. The village had a total 28.13% literate while total illiterate was 71.86%.

During the field visit in July, 2018, the researcher found only 35 families with 163 persons of *Pambori gaon* settled in *Pachim Chenimari gaon*. Other villagers of

Pambori got scattered as the village was totally merged into the river bed. Of those 35 families, 42.6% were main workers. Here, the researcher found 02 post-graduates which comprised 1.22% of the total population. Again, 1.22% graduates, 4.45% under graduates, 36% below H.S.L.C. and 57% illiterate people comprised the sample population. During the field observation in January, 2020, the researcher was able to trace out erosion affected 48 families of *Sialmari* in *Kathoni* and 56 of *Pambori* in *Pachim Chenimari*. Out of them 17.36% people were working as labour in *Pachim Chenimari* and 17.50% people were working as labour in *Kathoni gaon*. Out of the sample population of *Kathoni*, we found 2% graduates, 5.7% under graduates, 4.4 % H.S.L.C. passed, 44.39% below H.S.L.C. and 43.43% illiterate people who had no formal school education. Out of the sample population of *Pachim Chenimari*, 1.60% graduates, .96% under graduates, 6.1% H.S.L.C. Passed, 42% under H.S.L.C. and 49.19% illiterate.

In comparison to Morigaon, the sample villages of Dibrugarh were found better in terms of socio-economic conditions. The *Kasuwani gaon* had a total of 25 household with a total of 126 persons as recorded in the Census report, 2011. Total workers of the village were 41% and the main workers comprised 2.89% of the total population. Again, the marginal workers were of 38.11% and were 58.98% non-workers. The total literates were 56.34%. Total illiterates were 43.65%. During the field study in last July, 2018, we found only 14 families with a total of 64 persons in the *Kasuwani* village. Amongst them, there was no post graduate or even a graduate. The researcher found only 4.68% under graduates, 40.62% below H.S.L.C. and 54.68% illiterates including the children below the age group of 06 years. Again, in 2020, the researcher found 19 families with a total population 84 nos. Amongst them, 1.2% graduate, 4.76% (Higher Secondary Examination) H.S. passed, 4.76% HSLC

passed, 48.9% below H.S.L.C. level, 14.3% Lower Primary (L.P.) passed and 26.2% illiterate.

Besides, the *Kasuwani Pathar gaon* had a total population of 690 with 128 households as per the census records of 2011. Out of the total population, the total workers comprised of 41.01%, total literate were 28.11% and total illiterate were 71.88%, main workers were 2.89%, marginal workers were 38.1%, and non-workers comprised 58.98%. During the field visit the researcher found 33 families of *Kasuwani gaon* settled in the grazing land of *Kasuwani Pathar gaon* during the years 1999 to 2008 as per the permission of the local administration. Among the sample 33 families of *Kasuwani Pathar*, there were 1.06% graduates, 15% under graduate, 26.73% below H.S.L.C. category and 57.21% illiterates in 2018. Thus, in totality the researcher could trace out a total of $14+33+15=62$ families of *Kasuwani gaon* in 2018 and $19+33+15=67$ in 2020. They were mostly of *Matak*, *Chutia*, *Adivashi* (Tea garden workers), *Ahom* and a few *Bihari* population, who had adversely faced the hurdles caused by riverbank erosion. In comparison to it, in 2020, in *Kasuwani Pathar gaon*, the researcher found, 33 families with a total of 155 persons. The researcher found, 1.9% graduates, 23.87% H.S. passed, 5.8% H.S.L.C. passed and 21.93% below H.S.L.C. level, 23.87% L.P. passed and 22.58% illiterates. Again, in *Udalguri* village, the researcher found 15 families with a total number of 71 persons in 2020. Among them the researcher found no graduate population, 2.8% H.S passed, 2.8% H.S.L.C. passed, 7% below H.S.L.C. level, 83% L.P. passed and 4.22% illiterate people.

Again, in *Udalguri gaon*, according to 2011 Census report, there were a total of 108 families with 569 persons. Out of that total workers were of 36.02%, 9.49% main

worker, 26.54% marginal worker, 63.98% non-worker, 13% below six years age group population, 56.23% literate and 43.76% illiterate.

Another sample village of the present study was *Maijan gaon*, where the researcher found 42 erosion affected families of *Garpara gaon*. They were settled in the year 2000 by the government and each family was facilitated with 1 *Bigha* land, 1 house under the scheme of Indira Awaas Yojana (IAY) and Rs.2500/- as one time support. Besides, Census Reports (2011) recorded that *Maijan gaon* had a total of 336 households with 1619 population. Literacy rate of the village was 70.76%. The village had 28.96% total workers and 71.03% non-workers. Our sample 42 families of *Maijan gaon* had a total of 200 people. During the field study, the researcher found 0.5% graduates, 5% under graduates, 37% below H.S.L.C. level and 57.5% illiterate. Here too, like the previous two villages of Rohmoria, there was not even a single post graduate. The researcher found 2.9% graduates, 3.47% H.S Passed, 2.9% H.S.L.C. passed, 32.37% below H.S.L.C. level, 13.9% L.P. passed, and 44.51% illiterates amongst the sample population in *Maijan* during the field observation of 2020 and it constituted 40 families with a total number of 173 population. Again, during the field visit in 2020 the researcher found 1 number of Government employee in *Kasuwani*, 5 in *Kasuwani Pathar* and 3 in *Maijan* (sometimes called by the local people '*Khagori Maijan*') it was 03 and *Udalguri* had no Government employee.

Again, the annual income of 77.08% people of *Sialmari gaon* fell between 20,000/- to 40,000/- rupees while 18.75% people were within 40,000/- to 60,000/- rupees. Again, their consumption rate was also relatable. 89.58% people had the consumption rate of less than rupees 50,000/- annually. Of the *Pambori gaon*, 80% people were under the income level of rupees 20,000/- to 40,000/- and 10% people

were under the income of Rs. 40,000/- to 60,000/- annually. Regarding the consumption rate of *Pambori gaon*, 83% people were under the rupees 50,000/- income annually.

However, while comparing the income and consumption rate of Rohmorria, with the people of Laharighat, we have witnessed a sharp difference. In *Kasuwani Pathar gaon*, annually 9% people had the income of Rs. 20,000/- to 40,000/-, 27% people earned within Rs. 40,000/- to 80,000/-, 18% people earned within Rs.60,000/- to 80,000/-, 15% people earned within Rs. 80,000/- to 1 lakh, 12% earned between Rs. 1 to 2 Lakhs, 3% people earned between Rs. 2 to 3 Lakhs, 9% earned Rs. 3 to 5 Lakhs income and 3% were within Rs. 5 to 10 lakhs of income respectively. Besides, the village had 3% families having their annual income above Rs. 10 lakhs. In *Udalguri gaon*, 46% people were within the income of Rs. 20,000/- to 40,000/-, 26% people within the Rs. 40,000 to 60,000/- , 13% people within the Rs. 80,000/ to 1 lakh. 6.6% people were within the income of Rs. 60,000 /- to 80,000/- annually and another 6.6% people were earning upto Rs. 20,000/- annually. In *Kasuwani gaon*, 47% people were within the annual income of Rs. 80,000/- to 1 lakh. Within the income group of Rs. 40,000/-to 60,000/-, Rs. 20,000/- to 40,000/- and Rs. 1 to 2 Lakh respectively, we have found 15% people each. Another 5% people were earning upto Rs. 20,000/-. From *Maijan gaon* 50% were earning within Rs. 80,000/- to 1 lakh, 17.5% belonged to the income group of Rs. 60,000/- to 80,000/-, 12.5% were within the income group of Rs. 40,000/- to 60,000/- and 15% were within the income group of Rs. 20,000/- to 40,000/-. Regarding the annual consumption rate, 66% people of *Kasuwani Pathar gaon*, 33% people of *Udalguri gaon*, 84% people of *Kasuwani gaon* and 72.5% people of *Maijan gaon* were consuming up to Rs. 70,000/- annually.

From the above discussion, the present study arrives in the conclusion that though the economic conditions of the people in Rohmorria area were quite stable in comparison to Laharighat, yet the level of education amongst the people in the said two areas was somewhat similar. During our field visit in 2018, the researcher found, out of the sample size, that the number of government employees in *Kasuwani* village was 01, in *Kasuwani Pathar* village is was 03 and absent in *Maijan* village. In 2018, amongst our sample size, nobody had any government service in Laharighat area. Again, in 2020, the researcher found 06 government service holders out of our 56 sample families of *Pambori*, now living in *Pachim Chenimari gaon*. On the other hand, amongst the available 48 families of *Sialmari*, presently living in *Kathoni gaon*, there were no government employees.

Moreover, this chapter puts insight into the physiographic, geological, hydrological, soil related, climatic, and demographic as well as socio-economic information of the universe of study. It is worth mentioning here that, soil quality and geomorphic characteristics of the study area are the main factors behind severe riverbank erosion. Besides, the demographic and socio-economic profiles of the sample villages have shown the standard of living of the affected population. All these aspects enlighten the researcher to move to the micro level analysis of the lives and living of the affected population and push the study to employ on the data collection section, where the researcher moves to both secondary and primary sources to secure information about the riverbank erosion-induced IDPs of our sample area. Accordingly, the study moves to the fourth chapter to have a practical understanding on the plight of the affected population.

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Chapter IV

In the Aftermath of Riverbank Erosion: An Observation of Morigaon and Dibrugarh Districts of Assam

In the previous chapter, the researcher analysed the spatial, physiographic, climatic, soil quality, demographic and socio-economic profile of the sample areas of our study. That discussion helps the researcher to understand the factors behind severe riverbank erosion in the sample areas and the socio-economic profile of living of its dwellers. Therefore, at this backdrop the present chapter includes a comprehensive study about the extent and impact of riverbank erosion in Assam. Here, the study analyses the affects of riverbank erosion in terms of loss of land, affects on family and population and a comparative study on the socio-economic impact of erosion in the sample areas. The chapter however, examines all the available information regarding the extent of riverbank erosion in the universe of the study collected from the primary as well as secondary sources of data. In the way of analysing the research findings, efforts have been made to explain the whole scenario of riverbank erosion in the context of Assam in general and Laharighat and Rohmoría area in particular. However, the present chapter starts with a macro perspective of explaining the affect of erosion in Assam and enters into a micro level study of the sample villages in Laharighat and Rohmoría area to comprehend as well as compare the affect of erosion in both the domains of study. Thus, the chapter develops a comprehensive understanding about the damages caused by the process of riverbank erosion. By and large it opens up new doors to examine the resettlement and

rehabilitation mechanisms carried out by the State to mitigate the sufferings of the riverbank erosion-induced IDPs. At this critical juncture, the issue of politics of erosion emerges. Therefore, the study provides a general idea about the harsh realities of riverbank erosion in the sample areas of our study so that one can realize the corresponding remedial measures taken up by the State to mitigate the problem. Moreover, in this part of the study, the researcher assesses the feasibility of approaches adopted by the State towards addressing the issue of riverbank erosion. Again, the summary of this chapter includes the expressions regarding actual figures of riverbank erosion and its impact on the affected population. The chapter is organized into four *sections*. The *section I* incorporates the macro level understanding about the extent of riverbank erosion in Assam in general. The *section II* studies the extent and impact of erosion in Morigaon district as well as in our sample villages of *Sialmari* and *Pambori*. *Section III* offers an understanding of the extent and impact of erosion in Dibrugarh district in general and in the sample villages of *Maijan* and *Kasuwani* in particular. *Section IV* provides a comparative understanding of the socio-economic impact of riverbank erosion in both our sample cases and the plight of the IDPs.

Section -I

4. 1 Erosion in Assam: A Macro Perspective

Riverbank erosion is a natural process and usually influenced by climate, soil quality, river flow, seismological and drainage system of the particular area. Erosion of river banks is a result of combination of a number of factors like discharge, diversion in the flow, formation of shoal, migration of ephemeral bars near the bank,

channel scouring, cohesiveness of the bank materials, wetness of the area, configuration of the banks, bank failure and anthropogenic processes in the form of construction of embankments and excessive gravel extraction from the river bed and banks (Mukhopadhyaya & Mukhopadhyaya, 2008).

The floodplain areas in Assam are mostly facing one of the major geomorphological problems i.e. riverbank erosion. It leads to forceful displacement of a large number of population and they can be categorized as riverbank erosion-induced IDPs. As per evidences, riverbank erosion becomes more acute in the “downstream of Goalpara, Palasbari-Gumi, Mariahola and Mathola on the south bank of the Brahmaputra River and Matmara, Majuli, Sonarighat, Airingmara, Tezpur and Mukalmua on the north bank of the river Brahmaputra” (Goswami, 2008, p.2). The Water Resources Department of the Government of Assam also declares that the river Brahmaputra and its tributaries since 1950 eroded 7.40% of the area of the State (<https://waterresources.assam.gov.in/portlets/river-system-of-assam>).

The morphological studies conducted by the North Eastern Council (NEC) on erosion of the Brahmaputra (1993) recognized the following 15 sites (See Table 4.1). The table 4.1 shows 9 sites on the south bank and 6 sites on the north bank of the Brahmaputra valley that are facing the problem of erosion.

Table: 4.1: 15 Sites of Riverbank Erosion Recognized by NEC

South Bank (9 sites)	North Bank (6 sites)
1. Nagaghuli Oakland area near Dibrugarh.	1. Sonarighat area at Sonarighat.
2. Maijan Mathola.	2. Matmara area near Dhemaji.
3. Hatisaal Nemati area near Jorhat.	3. Gamirighat area near confluence of Subansiri.
4. Mariahola near Bokakhat.	4. Bhoirabpad and Bihaguri Mouza.
5. Laharighat-Mairabari area near Morigaon.	5. Howlighat Mukalmua area.
6. Palasbari town area.	6. Baghbar to Bohori near Barpeta.
7. Gumi-Kalatoli area.	
8. Fakiraganj South Salmara area.	
9. Sukhchar area.	

Source: Bordoloi, 1995, pp.147-148

Another comprehensive study, Sarma (2007) focused on the affected areas and total amount of land eroded due to riverbank erosion in the North as well as in the South bank of the river Brahmaputra in Assam in two phases, the years between 1912-1928 to 1963 and 1963-1975 to 1996.

Table: 4.2: Affected Areas of Riverbank Erosion in the North as well as South Bank of the river Brahmaputra

Period	Areas affected in the North bank of the river Brahmaputra(Square Kilometer)	Areas affected in the South bank of the river Brahmaputra(Square Kilometer)
From 1912--1928 to 1963—1975	Dikari, Bargali, Sonarighat under Dhemaji district/ From Haldhibari(Majuli) through Dakhinpat, Auniati and Ahatguri to Bishwanath/ To Singiri through Taliagaon(Sonitpur) and Dalgaoon(Darrang)/Rohinimukh under Darrang, Sualkuchi under Kamrup, Mukalmua and West under Nalbari/ From Tarabari, Baghbar, Manikpur(Barpeta) to Jogighopa(Bangaigaon). From west of Jogighopa through Chapar(Dhubri) to Salkochectare(Total 782.49 sq. km.)	From Soikhowaghat(Tinsukia district) to Rohmoria, Oakland, Nagaghuli Dibrugarh city (Dibrugarh)/From Bogibeel through Dighingmukh, Dishangmukh and some west to that, the whole bank line/ Nimatighat under Jorhat/ Dhansirimukh under Golaghat/ Kaziranga/From East border of Nagaon district Silghat, Bhurbandha, Udhantula to north of Dhing/From Salmari gaon under (Morigaon) through Sonaimukh and Kajalimukh to Chandrapur/From Palasbari through

		Hohowapathar to Baghmara/From Kharmuja (Goalpara) through Sunari and Fakirganj (Dhubri) to the north of South Salmara. (Total 747.61 sq km)
From 1963-1975 to 1996	From Kabu to Dikari (slightly)(Dhemaji)/Sonarig-hat/From Haladhibari (Majuli) under Jorhat district to Sikarigaon and at Kamalabari/From Auniati to Begati(Sonitpur)(adversely)/In the west of Bishwanath/ From Tezpur through Teliagaon to Singiri/In the east of Sipajhar(Darrang)/In the east and west of Sualkuchi (Kamrup)/From Mukalmua (Nalbari) to the west means Sakabachi/Through Tarabari and Baghbar (Barpeta) to Satia (badly)/ Slightly in Bongaigaon and Dhubri districts. (Total 459.51 sq.km).	Through Soikhowaghat (Tinsukia) Rahmoria and Nagaghuli (Dibrugarh) adversely/ From Dikhowmukh (Sivsagar) to Nimatighat (Jorhat)/Dhansirimukh under Golaghat district/In the east and west of Kaziranga/ From east of Moirabari (Nagaon) to Burah-Mayang (Morigaon) adversely. In the Palasbari under (Kamrup) (slightly). From Hohowapathar to Baghmara(badly). (Total 368.69 sq. km)

Source: Sarma, 2007.

Hence, from the Table 4.2 it is found that the intensity of riverbank erosion was severe in the first phase between the years 1912 to 1963 i.e. 1530.10 sq. km. than that of the second phase, between the years-1963-1996 i.e. 828.20 sq. km.

The Water Resources Department, Government of Assam released the data that since the last six decades, more than 4.27 lakh hectares of land have already been eroded away by the river Brahmaputra and its tributaries. Thus, the annual average loss of land is nearly 8000 hectare (<https://waterresources.assam.gov.in/portlets/flood-erosion-problems>).

The intensity of erosion can be better understood by the following table (table 4.3) that shows the widening of the river Brahmaputra in different time frames.

Table: 4.3: The Area Covered by the River Brahmaputra in Different Time Frame

Sl.No	Survey Period	Area Covered by the river Brahmaputra
1	First survey (1912-28)	3870 km ²
2	Second survey (1963-75)	4850 km ²
3	Third survey (2006- NESAC)	6080 km ²

Source: <http://assam.gov.in/web/department-of-water-resource/flood-and-erosion-problem>

The above table (4.3) shows the increasing trend of the coverage of the river Brahmaputra. It implies that the river snatches more and more land and accordingly increases the rate of riverbank erosion. The increasing problem of riverbank erosion can be better understood when one looks at the damage caused by the problem of riverbank erosion in Assam between the years 2001 to 2006. The assessment conducted by the Revenue Department and published by the Water Resources Department of Government of Assam displayed information as given in the following table (4.4), that the problem of riverbank erosion has been continuously increasing since 2001 to 2005. Consequently, it affected a large number of families and made a huge loss of property as well. Thus, table (4.4) below helps the researcher to understand the devastation caused by the river Brahmaputra and its affect on society and economy of Assam.

Table: 4.4: Extent of Riverbank Erosion from the years 2001 to 2006 in Assam

Year	Area eroded in Hectare	Nos. of villages Affected	Family affected in Numbers	Value of Property (including land loss Rs in Lakh)
2001	5348	227	7395	377.72
2002	6803	625	17985	2748.34
2003	12589.6	424	18202	9885.83
2004	20724	1245	62258	8337.97
2005	1984.27	274	10531	1534
2006	821.83	44	2832	106.93

Source: <http://assam.gov.in/web/department-of-water-resource/flood-and-erosion-problem>

Apart from all these, another set of writings showed that in case of Assam “roughly 7% of land in the plains has been eroded between 1951-2000” (Hussain, 2007, p.19). That had definitely displaced at least 3 million peasants of Assam as agriculture is the prime occupation of a large section of the rural population of the State (Hussain, 2007). In addition, in the news paper daily *The Assam Tribune*, it is published that the River Brahmaputra has caused an average annual land loss of “3,900 hectares over the last 34 years” (The Assam Tribune, 2nd Dec, 2007).

Aparna Buzarbarua (2013) also states that “the Brahmaputra river basin is one of the most erodible basins in India” (p.95). She again says that “the State of Assam loses on an average 8,000 hectare of land every year due to erosion caused by the Brahmaputra” (p.95). She opines that between the years 1954 to 2002, “the Brahmaputra had alone eroded away over 3.88 Lakh hectare of land” (p.95).

Again, when one studies the severely erosion affected areas of Assam, it is found that the river Brahmaputra is causing severe erosion in places like Rohmorla and Dibrugarh town, Matmora, Majuli and Nimati Ghat, Lahorighat Palasbari and Gumi (South Asian Network on Dams, Rivers and People (SANDRP), 2014).

In another news published in one of the daily newspapers of Assam, ‘The Assam Tribune’ (31/7/2003) it is released that as per sources of the Assam Water Resources Department from the year 1954 to 2002, the State lost more than 4 lakh hectares of land due to riverbank erosion. The most affected areas are Goalpara, Laharighat-Bhuragaon, Palasbari-Gumi, Baghbor, Mukalmua, and South-Salmara area. Besides, more than 1 lakh families have been rendered homeless due to riverbank erosion in Assam.

However, to identify the areas affected by severe riverbank erosion in Assam, we can go through the following table (4.5). It pointed out 12 areas of the Brahmaputra valley, where one can observe severe bank erosion in both North and South banks. Besides, the table below helped the researcher to compare the extent of riverbank erosion in both the North and South bank of the valley. It highlights that the South bank of the river Brahmaputra is more vulnerable to riverbank erosion than the North bank.

Table: 4.5: Satellite based records on the amount of land erosion in the North and South Bank in Brahmaputra valley

Sl. No. & Name of the Reaches		North Bank		South Bank	
		Total Erosion Length (sq.km)	1990-2008 (sq.km)	Total Erosion Length (sq.km)	1990-2008 (sq.km)
1	Dhubri	40.19	124.461	7.05	194.983
2	Goalpara	39.5	79.046	4.85	17.816
3	Palasbari	54.87	48.668	14.02	23.006
4	Guwahati	21.02	7.92	24.38	5.385
5	Morigaon(Mangaldai)	6	35.606	47.91	96.979
6	Morigaon (Dhing)	24.86	29.057	47.8	10.795
7	Tezpur	8.58	38.758	52.95	16.628
8	Tezpur (Gohpur)	8.85	31.187	44.16	26.098
9	Majuli (Bessamora)	24.69	25.562	47.17	32.788
10	Majuli (Sibsagar)	16.93	60.657	54.95	44.018
11	Dibrugarh	37.86	37.506	43.89	46.595
12	U/s Dibrugarh	70.5	20.376	57.54	399.529
Total	12 Reaches	353.85	538.805	389.13	914.62

Source: Sharma, Johnson, Hutton, & Clark, 2010, p.216, Retrieved from <https://benthamopen.com/contents/pdf/TOHYDJ/TOHYDJ-4-211.pdf>

In his study Goswami also highlights the extent and impact of riverbank erosion in Assam. He opines that “since 1954, rate of riverbank erosion is 8000 hectare per

year with a total of 427000 hectare land loss in Assam. It eroded 2534 villages and affected 125000 families” (p. 14).

Besides, we have already mentioned the records of Assam Human Development Report, 2014 in terms of amount of land eroded and population affected in the first chapter of our discussion, wherein it was argued that massive riverbank erosion is always accompanied with the problem of flood in Assam. (Assam Human Development Report, 2014).

On the question of district-wise riverbank erosion in Assam in last five years, Kataria displays the following table 4.6 in regards to Lok Sabha questions on 04.07.2019. It shows the seriousness of the problem of riverbank erosion and related IDPs for the last five years in different districts of Assam.

Table: 4.6: Riverbank Erosion in Assam

Sl. No	District	Area of land eroded	Number of people landless due to erosion
1.	Jorhat	30618B- 3K-14L	2415
2.	Sonitpur	26041B-8K-52L	27111
3.	Cachar	Does not arise	255
4.	Karimganj	Does not arise	Nil
5.	Lakhimpur	29196B-17K-66L	2043
6.	Durrang	43402B-4K-43L	186
7.	Dizabri	87036B-9K-43L	2062
8.	Sivasnagar	4103B-8K-24L	78
9.	Goalpura	41394B-6K-24L	298
10.	Hojal	Does not arise	Does not arise
11.	Hadakandi	Does not arise	120
12.	Bongaaon	293 Hectare	66
13.	Bishwanath	9845B-4K-18L	158
14.	Nailbari	42458B-2K-9L	2619
15.	Morigaon	16525.07 Hectare	18425
16.	Dhemaji	1281.92 Hectare	2087

17.	Charaideo	425B-0K-15L	02
18.	Golaghat	27801B-9K-23L	793
19.	Kamrup	92734B-5K-41L	9337
20.	Dibrugarh	56186B-4K-19L	595
21.	Barpeta	120493B-0K-0L	7137
22.	Kamrup (M)	No land eroded	Does not arise
23.	KarbiAnglonng	Nil	Nil
24.	Majuli	405000B-0K-0L	10500
25.	Nagaon	14977 B-6K-40L	
26.	BTAD	30248B-11K-30L	249

Source: <http://164.100.24.220/loksabhaquestions/annex/171/AU2168.pdf>

The above table 4.6 shows that a total of 86,536 persons were affected by riverbank erosion in Assam in the last 5 years. According to this table, Morigaon district has the second highest number of IDPs in Assam in the last 5 years and that is more than 30 times higher than Dibrugah district.

Again, Kataria (2020) on the matter of erosion caused by the river Brahmaputra refers to the report of the morphological studies conducted by Indian Institute of Technology, Guwahati. The report displays that between the years 2003-05 to 2008-11, a total of 252.6 sq.km area had been eroded in Assam (<http://164.100.24.220/loksabhaquestions/annex/173/AU794.pdf>).

Considering all the above mentioned information, it is clear that the river Brahmaputra has eroded a huge amount of land in plains of Assam and the two sample areas of this research work are easy targets of erosion. But one of the serious lacunae of the present research is that the official information given by the political representatives at different times are not uniform. Again, the information obtained from the print or electronic media are also analysed to get an actual picture of the

problem of erosion. Despite these limitations, one cannot deny the devastations caused by the problem of river bank erosion in different parts of Assam.

Hence, the study explores that flood and subsequent riverbank erosion that carry enormous miseries every year and accordingly huge population have been displaced as well as misplaced. Hence, it invites micro-level understanding of the problem of riverbank erosion in the sample area of the study to understand the problem as minutely as possible.

Section- II

4. 2 Erosion in Morigaon District: A Micro Perspective

As a flood-prone district, Morigaon has been continuously affected by riverbank erosion mostly caused by the river Brahmaputra. Erosion hazards are also severe in the district. Geographically, Morigaon Accounts 1.98% of the total area of the State of Assam (Administrative Atlas, Assam Census of India, 2011) and has five Revenue Circles with a total of 16 Mouzas. Among them the three Revenue Circles namely, Laharighat, Bhuragaon and Mayong have been severely affected by riverbank erosion. The severely affected Mouzas under these three Circles are Morigaon, Bhuragaon, Bokani, Laharighat, Moirabari and Pakaria (Field study report, Deputy Commissioner's Office Morigaon, 2018).

The Office of the Deputy Commissioner, Morigaon District informed that the district lost 13728.94 hectare land due to erosion between the years 1971-2009. The intensity of riverbank erosion has been increasing since 1989. Between the periods 1969 to 2001, the district lost 0.07% of the total area that was 10256.93 hectare (Field study report, July, 2018).

The district lost a total of 110 villages due to riverbank erosion. Out of which 57 villages from the Bhuragaon, 38 villages from the Laharighat, and 15 villages were from the Mayong Circle (Field study report, January, 2020). The Deputy Commissioners' office informed the researcher that all the three Circles, namely, Bhuragaon, Mayong and Laharighat, 7610.98, 1552.11 and 4565.85 hectare land respectively went to river bed between the years 1971 to 2009. From 1969 till 2001, 16950 number of families and a total of 47000 persons rendered homeless in the area (Field study report, July, 2018).

In addition to it, Bhuragaon Circle lost a total of 9,975.2 hectare land with 57 villages and 6723 families, Laharighat Circle lost 5833.16 hectare land with 38 villages and a total of 6543 families and Mayong Circle lost a total of 2092.91 hectare land with 3773 families till 2020 (Field study report, Revenue Circle Office, Bhuragaon, Laharighat and Mayong, January, 2020).

Yadav (2001) in her study points out that floods and riverbank erosion in Assam affects 3.15 million hectare area. As per government estimation in Assam, she writes that Rs. 1,194 crore alone is required to carry out short term measures such as construction of new embankments, drainage channels, sluices and raised platforms. The Bhuragaon Circle too had been facing erosion since last 1960 and lost 5349 hectare land. Further she writes that the people of Bhuragaon Revenue Circle in Morigaon district of Assam are not at all dependent on the Embankment and Drainage Department (e&d) and have started to tackle the problem by themselves. They constructed bamboo spurs locally and dug them on the banks of the Brahmaputra to check erosion. While some people donated bamboo, others pitched in with labour to construct the bamboo spurs. Yadav distinguished those spur to that

of the works of the e&d department (www.downtoearth.org.in/coverage/spurring-people-into-action-15980).

Another study on riverbank erosion shows that “a total of 54 villages from the Bhuragaon Revenue Circle” was affected by riverbank erosion during 1998 to 2012 (Bora, 2020, pp.679-680).

Sarma (2007) in his research work prepared the population trend of erosion affected villages of Morigaon district between the years 1991 to 2001 as per census records. His study displayed in the following (Table 4.7) helped the researcher to realize the amount of villages and population affected by riverbank erosion in the district.

Table: 4.7 Population Trend of Erosion Affected Villages of Morigaon District.

Category	No. of Villages	Population	
		1991	2001
District	636	639682	776256
Completely eroded	19	22696	1195
Partially eroded	27	35501	28248

Source: Sarma, 2007, p.87.

From the above discussion, the researcher comprehends that riverbank erosion has been severely affecting the land and people of Morigaon district. To get a more precise understanding, the present study now throws light on the case of Laharighat and Rohmoriam area, the universe of the study.

4. 2.1 Extent of Erosion in the Laharighat Circle in Morigaon District

Laharighat Circle Office released the data that between the years 1982 to 2019 the total amount of land eroded is 5833.16 hectare and it affected a total of 6543

households and more than 34,607 people (Field Information, Revenue Circle Office, Laharighat, January 2020). The two Mouzas of the Circle namely Laharighat and Moirabari are adversely affected by the process of riverbank erosion. In Laharighat Circle, total 29 villages were fully eroded by the river Brahmaputra. The list showing the names of the fully eroded villages of the Laharighat Circle is incorporated below in table 4.8.

Table: 4.8: List of Fully Eroded Villages of Laharighat Circle

Sl. No	Name of village	Year of Erosion	Mouza	Area Eroded (Hectare)	Family	Population	Remarks
1	Sitalmari	1982	Moirabari	625.5	305	1770	Fully eroded
2	Goroimari	1983	-do-	146.18	197	1240	-do-
3	Goroimari gaon	-do-	-do-	237.59	250	1447	-do-
4	1no.Rangai Sapor	-do-	-do-	153.51	267	1587	-do-
5	2no.Rangai Sapor	-do-	-do-	61.51	81	459	-do-
6	Bhajakhaity Gaon	1984	-do-	50.52	140	840	-do-
7	Sonarigaon	1984	-do-	158.06	216	1223	-do-
8	3 No.Rangai	1986	-do-	24.07	73	378	-do-
9	Sialmari Pathar	1987	-do-	187.49	220	1266	-do-
10	Madarguri	1989	-do-	169.24	201	1192	-do-
11	Goroimari Pathar	1989	-do-	276.23	211	1215	-do-
12	Kaurihagi	1982	Laharighat	189.26	41	324	-do-
13	Kisamguri	1984	-do-	98.04	84	430	-do-
14	Kashipur	1984	-do-	200.47	109	714	-do-
15	Tengaguri gaon (Non-k)	1984	-do-	84.89	125	777	-do-
16	Tengaguri gaon	1984	-do-	233.59	140	840	-do-
17	1 no. Tengaguri	1984	-do-	179.74	116	756	-do-
18	2no.Tengaguri	1984	-do-	156.08	147	899	-do-
19	Dhekeramari	1986	-do-	213.79	225	1357	-do-
20	Dhumkura	1986	-do-	143.89	345	2015	-do-
21	Sialmari Kachari gaon	1985	-do-	273.36	235	1497	-do-

22	Sialmari	1990	-do-	324.35	136	871	-do-
23	Harangtoli	2003	-do-	33.33	121	790	-do-
24	Chutiagaon	2004	-do-	82.67	322	1852	-do-
25	Roumari	2004	-do-	161.4	104	716	-do-
26	Borigaon	2002	-do-	183.44	116	770	-do-
27	Garakhia Khuti	1999-2017	-do-	211.76	135	807	-do-
28	Pambori	2006-2017	-do-	100.17	129	720	-do-
29	Mikirgaon	2013-2018	-do-	176.21	550	N/A	-do-

Source: Revenue Circle Office, Laharighat, Field Information-2020

The table 4.8 above shows the devastating erosion caused by the river Brahmaputra in the total 29 villages. These totally washed away villages lost 5136.34 hectare land. It affected 5341 families with 28,752 people. Noteworthy that the total population affected in the village ‘Mikirgaon’, which was eroded between the years 2013 to 2018 was not available in the records of Revenue Circle Office, Laharighat.

Again, the researcher has another list of the partially eroded villages as given in table no. 4.9 which shows the continuous affect of riverbank erosion in Laharighat Circle. The table below shows that a total of 696.82 hectare land with 1202 families and more than 5855 persons of 9 villages were affected by riverbank erosion till 2020. However, the Revenue Circle Office was unable to render information about total population affected in the recently eroded villages ‘Kathoni’ and ‘Bagalipara gaon’.

Table: 4.9: List of Partially Eroded Villages in Laharighat Circle

Sl. No	Name of village	Year of Erosion	Mouza	Area Eroded (Hectare)	Family	Population	Remarks
1	Solmari	2001	Moirabari	109.04	146	856	Partially eroded
2	Ulubari	2002-07	-do-	127.33	117	723	-do-

3	Borthal Doloigaon	2002	-do-	88.5	74	496	-do-
4	Bhajakhaity Pathar	2002	-do-	15.25	226	1251	-do-
5	Lerua Mukh	1989	-do-	175.21	205	1187	-do-
6	Chenimari	2006	-do-	97.55	104	617	-do-
7	Dakhin Cenemari	2012	-do-	29.73	145	725	-do-
8	Kathoni	2018	-do-	40.04	167	N/A	-do-
9	Bagalipara gaon	2019	-do-	14.17	18	N/A	-do-

Source: Field Study Report, Revenue Circle Office, Laharighat, 2020

Both the tables 4.8 and 4.9 display that the sample village *Sialmari gaon* had been fully eroded in 1990 and *Pambori gaon* had been partially affected by erosion in 2006. The Circle Office again shows that the *Pambori gaon* was fully eroded between the years 2006 to 2017. Again, the river Brahmaputra eroded 324.35 hectare land of 136 families of *Sialmari* and 112.17 hectare land of 129 families of *Pambori* village. The number of population affected in *Sialmari* and *Pambori* were 871 and 720 respectively.

4.2 .1.1 Tell of the Kathoni Gaon (IDPs of Sialmari Gaon)

Our sample area of *Sialmari gaon* comprises of 48 riverbank erosion-induced internally displaced families. During the field visits in July 2018, we have found out 30 families in *Kathoni gaon*. Again, in January 2020, we have found the remaining 18 families there along with the previous 30 families. Those erosion affected families had been shifted to *Kathoni* in 1990 and now settled in government land in embankment. During the field study, they admitted that other erosion affected families were scattered and left to other parts of Laharighat area in Morigaon district and now settled in different places at their own expense. The researcher had

conducted a detailed discussion with the available 30 families having a total of 203 people of earlier *Sialmari gaon*, in the *Kathoni gaon*. The researcher, during the field study in 2018, came to know that those 30 families lost a total of 47 hectare land. Again, in 2020, the researcher found 48 families with 297 persons in *Kathoni*. The respondents reported that due to erosion they lost a total amount of 77.18 hectare land.

They narrated that in the year 1990, riverbank erosion had forcefully shifted them from the *Sialmari gaon*. Accordingly, they built up their temporary settlement in *Kathoni gaon*. Their community life and social structure was damaged in due course. The economically capable families had already left *Sialmari* and moved to safe areas at their own cost. The male members of economically weak families moved to the places like Morigaon, Guwahati, Arunachal Pradesh, Dimapur in search of livelihood and now purely aloof from their original social structure. It has led to bifurcation of such families also. They are engaged as daily wage earners, contractual construction labourers, manual workers, rickshaw pulling, thela pulling or other daily earning methods. The present 30 families had no direct contact with their earlier neighbours as a result of which they have completely lost their previous community structure. The local administration has allowed them to construct their shelter in the *Kathoni* village. They have very thickly prepared their jhopri's and do not have *pattas* against their presently occupied land. There are two tube-wells to serve the drinking water facility to the 30 families in 2018. So far their health and hygiene are concerned, those families have a very little awareness about sanitation facilities, rather they have *Kacha* latrine (68.7%, displayed in the later part of this discussion on Table 4.12) or they release their natural pressure openly, near the

riverside. The village also lost their Lower Primary (L.P.) School, Namghar, Masjid and other community properties due to erosion. Subsequently, they are deprived of the common property resources, and face the problem of social and community disarticulation. They are now only the daily bread earners who attained 200-250 rupees for per day's work. The sampled 30 families today have only a jhopri in government land (in embankment) as their shelter.

In terms of their socio-economic standard of living, they are in the situation of impoverishment risks. Because of the loss of their original habitat they are now homeless. Again, they lost their avenues for livelihood as agriculture was their prime source of livelihood earlier and now they do not have cultivable land. Thus, erosion forcefully set them in jobless conditions. Their children have also become victims as they are unable to attain continuous education during the process of erosion and their movement to the present *Kathoni* village. Of the 30 families the researcher found only 0.49 % graduate and 6% under graduates, 33.5% of the below class X and they are under school going group. They have a total of 60.09% illiterate population. But now their children have facilities of schools at *Kathoni* village at a minimal distance of 1 to 2 km. At present, they are availing benefits of Sarva Siksha Abhijan and Mid Day Meal programme offered at the school also. No one from the sample areas obtained any special technical degree from any recognized institution. So, their youths have very small possibilities of being appointed in well remunerative jobs. Now the sampled 30 families draw their livelihood from the daily wage earning sources.

In *Kathoni gaon*, they have one Primary Health Care Centre and the respondents informed that it would become active during the time of flood. For health issues they

now have to move to the Mahatma Gandhi Model Hospital, in Laharighat. However, it is rare for them to move to hospital; rather they rely on the local *ojhas* or the *Bejs*. The social and community support system of the affected families are damaged as their earlier social constructs were washed away by the process of erosion. Their co-operative and natural village mechanisms are also disturbed as their community life has undergone fragmentation. Comparing their previous settlement, i.e. more than one hundred families and a full-fledged village, in 2018, they are now only 30 families availing benefits of the BPL card, Job Card under MGNREGA and benefits from Pulse Polio Abhijan. They have schools under Sarva Siksha Abhijan.

In January, 2020, the researcher found 48 families with similar situations of health and hygiene. Amongst them there were 11 tube-wells (Hand pump) and they did not use water filters for purification of drinking water. All 48 households were *Kacha* and amongst them 31.25% had their *Pucca* sanitary facilities. Other 68.75 % had the *Kacha* structure. Now, 83.33% households got benefit from MGNREGA, 95.83% from Public Distribution system, specially subsidized rice, 8.3% from government rural sanitation schemes, 22.91% from National Old Age Pension Scheme, 31.25% from Pradhan Mantri Gramin Awaas Yojana, 18.75% from Pradhan Mantri Ujjwala Yojana facilities. Amongst them 4.1% families received benefits of Atal Amrit Abhijan.

Regarding their educational qualification, in 2020, the researcher found 2 % graduate, 5.7% under graduate, 4.37% passed H.S.L.C. examination, 26.93% lower primary passed, 12.79% below H.S.L.C. category, 43.43% had no formal education and 4.71% were going to Anganwadi centre.

4.2.1.2 Tell of the Pachim Chenimari Gaon (IDPs of Pambori Gaon)

Pambori is our second sample village under the Laharighat Circle of Morigaon district. The Circle Office enlisted it in the list of the partially affected villages. As per official records, the village had lost 112.17 hectares of land of 129 families with 720 populations. During the field visit on July 2018, the researcher could trace out only 35 families of *Pambori gaon* in the *Pachim Chenimari gaon*. They are settled in Government land as per the permission of the local administration. They do not have *pattas* against their present habitat. The sample 35 families had lost 56.27 hectares of land into river bed. They had a total of 163 persons (35 families) as reported by the *Gaon Burah* of *Pambori* and residing in the Government Land of *Pachim Chenimari* L.P. School. In January, 2020, the researcher found, 56 families with 311 persons of *Pambori gaon* in *Pachim Chenimari gaon* and they lost a total of 91.6 hectares of land. The Census report 2001 recorded that the village *Pambori* had 134 families. Out of those, 129 families were wiped away in 2006. According to 2011 Census reports, there were 104 families with a total population of 551 in *Pambori*. During the field visit, the researcher had found 1.2% post graduates, 1.2% graduates, 2.45% under graduates and 38% people are of below H.S.L.C. and school going category. Here, there were 57% illiterate people in July, 2018. Now in 2020, there are 1.6% graduates, .96% undergraduates, 6.1% H.S.L.C. Passed, 30% lower primary passed, 5.7% below H.S.L.C. category, 49.2% illiterate and 6.4% minors. Out of 56 families, 76.8% are the beneficiaries of MGNREGA, 91.1% of Public Distribution system, 8.9% Rural Sanitation scheme, 12.5% National Old Age Pension Scheme, 3.6% Pradhan Mantri Gramin Awas Yojana, 25% Pradhan Mantri Ujjwala Yojana and 7.14% under Atal Amrit Abhijan.

In Pambori out of 56 families, 92.86% have *Kacha* and 7.1% have *Pucca* houses. Among them 17.85% families have *Pucca* and 82.14% have *Kacha* sanitary facilities. All families are using tube-well (Hand pump) as their source of drinking water. They never use any water filter in this regard.

From the primary observation, the researcher highlights the fact that similar to the people of *Sialmari gaon*, the people of *Pambori* too have attained the benefits of BPL card, Job Card under MGNREGA, benefits from Pulse Polio Abhijan, and they have schools under Sarva Siksha Abhijan. In both the situations, respondents are often deprived from their basic socio-economic and cultural necessities except ensuring their basic right to vote.

Section-III

4.3 Extent of Erosion in Dibrugarh District: A Micro Perspective

The problem of river bank erosion is not a recent phenomenon for Dibrugarh district. Since the great Earth quake of 1950, the district had been enlisted in the severe erosion affected sites in Assam along with Majuli and Palasbari. Out of the 7 Revenue Circles in the Dibrugarh district, the Chabua and the Dibrugarh East Circle has been severely affected by riverbank erosion. From the years 1999 to 2009, Dibrugarh district lost 3.75 hectares of land and 76 families became homeless due to the process of river bank erosion (Field study report, Deputy Commissioner's Office, Dibrugarh District, 2018).

Another study of Flood and Riverbank Erosion Management Agency (2009) highlighted that the Oakland-Bogibeel Reach in Dibrugarh district witnessed the pattern of erosion and accretion of the bank of the river Brahmaputra which were 3616.42 hectare and 802.87 hectare respectively during the period 1967 to 2008. It

had led to a net loss of around 2813.55 hectares of land. At present about 90 hectares of land are eroded (per year) in the Dibrugarh reach (India: Assam Integrated Flood and Riverbank Erosion Risk Management Investment Program, Project 2; Dibrugarh Subproject, 2009 p. 131).

As per official records, from 1970 till January 2020, the district had lost a total of 6,686.88 hectares of land (49951B-02K-09 Ls) and affected a total of 922 families (RTI report, 2020, Office of the Deputy Commissioner, Dibrugarh).

The Water Resources Department of the Government of Assam released the fact that there is serious erosion in each year in Dibrugarh district where particularly Rohmoria is the worst affected. Again, the rate of erosion turned out to be 0.26 sq.km/ per km for the period from 1972 to 1996, which is four times higher than the previous rate (0.06) (<https://googleweblight.com/i?u=https://waterresources.assam.gov.in/portlet-innerpage/protection-of-rohormia-area&hl=en-IN>).

4.3.1 Extent of Erosion in the Chabua Circle in Dibrugarh District

The history of riverbank erosion in the Chabua Circle can also be traced back to 1950's. Local people of the area firmly opined that after the great earth quake of 1950, Rohmoria also witnessed harsh attacks of flood as well as riverbank erosion mostly caused by the river Brahmaputra. From the years 1965-66 to 2010, Rohmoria and Bogdung Mouza under Chabua Circle lost 16 and 3 villages respectively due to severe riverbank erosion. Again from both the Mouzas, the number of partially affected villages is 5 /per Mouza. In totality, the Circle had lost 6297.33 hectares of land and left 769 families homeless. Till 2010, Chabua Circle has a total of 31124.66 hectares of land and 4 mouzas, with 125 villages (Field Study Report, Chabua Circle, July, 2018).

The Circle office has provided the following list of fully and partially eroded villages in Chabua Circle.

Table: 4.10: Name of the Fully and Partially Affected Villages in Chabua Circle

Sl. No.	Mouza	Name of the Fully Eroded Village	Name of the Partially Affected Village	Remarks
1	Rohmoriam	Chainaki	Rohmoriam	
2		Mohmara Nepali gaon	Kochuwani	
3		Mohmara Kathoni goan	Garpara	
4		Chabru Baliyani gaon	Baratichuk	
5		Chabru Baliyani Nanke gaon	Niz Rohmoriam	
6		Nefafu gaon		
7		Nefafu 200/199 N.L.R		
8		Gahori Pathar		
9		Lachakani		
10		Larukuria		
11		Larukuria Pathar		
12		Saru gaon		
13		Na-gaon		
14		Guiphala		
15	Bogdung	2 No. Rangmala	Raidang	
16		Bordubi Nanke	Rangmala	
17		2 No. Bindhakata	Bindhakata	
18			Gereki gaon	
19			Gereki Nepali gaon	
Total				

Source: Field study report, Revenue Circle Office, Chabua, 2018

As per the information of the Water Resources Department, Government of Assam, till 2008, Rohmoriam had lost 8435 hectares of land. In a bank line length of 9 km. areas, riverbank erosion rendered 768 families homeless. The rate of erosion is 4.72 m/year (Field study report, Water Resources Department, Dibrugarh District, July, 2018).

From Chabua Circle, the total amount of eroded land is 5394 hectare (40274 B-02K-06 L) with 580 affected families. It is the highest in comparison to other Circles of Dibrugarh district (RTI report, Deputy Commissioner's Office, Dibrugarh).

Saikia (2004) in his study pointed that before erosion Rohmoría area has a total of 34 revenue villages with 7239.2 (approximately) hectares of land. He again, pointed out that around 896 families were affected by the process of erosion and they comprised mostly of *Mishing*, *Chutia*, *Matak*, *Adivashi* (Tea garden worker) and *Nepali* Population of the area. The following table 4.11 shows the list of erosion affected villages and families of Rohmoría area.

Table: 4.11: List of Erosion Affected Villages and Families of Rohmoría Area

Sl. No	Name of the Village	Year of Erosion	Family in numbers/ Population Affected	Remarks
1	Mohmara	1955-1971	50/Mishing	The amount of land erosion and specification of Mouza's are not available.(it is applicable for all the enlisted villages)
2	Mohmara N.C.	-do-	N.A.	
3	Mohmara Dakhin Khanda	-do-	N.A.	
4	Chagoli Pathar	-do-	N.A.	
5	Chagoli Khanda	-do-	N.A.	
6	Mohmara Nepali Gaon	-do-	N.A.	
7	Kalani Khanda	-do-	25/Mishing	
8	Kalani Mirigaon	-do-	55/Mishing	
9	Upar Barala	-do-	N.A.	
10	Barala Khanda	-do-	N.A.	
11	Barala gaon	-do-	N.A.	
12	Bahona gaon	-do-	35/Mishing	
13	Mohmara Kathoni	After 1971	20/Mishing	
14	Mohmara Kathoni Khanda	-do-	N.A.	
15	Nefafu Rengmala T.E.	-do-	-do-	
16	Chabru Baliyari	-do-	141/Mishing	

17	Chainaki	-do-	20/Mishing	
18	Rangajan gaon	-do-	65/Nepali/Chutia	
19	Guiphala habi gaon	-do-	N.A.	
20	Gahari Pathar	-do-	50/Chutia/Matak/Tea Garden worker	
21	Rohmaria gaon	-do-	N.A.	
22	Saru gaon	-do-	60/Chutia	
23	Na gaon	-do-	60/Chutia	
24	Guiphala gaon	-do-	70/Chutia	
25	Larupuria gaon	-do-	N.A.	
26	Larupuria Pathar gaon	-do-	40/ Chutia/Matak	
27	Lachakoni gaon	-do-	60/Chutia/Matak	
28	Parts of Balijan T.E.	-do-	N.A.	
29	Niz Rohmaria	-do-	50/Chutia/Matak/Tea Garden worker	
30	Barati chuk	-do-	N.A.	
31	Garpara (konwar gaon)	-do-	45/Chutia/Matak	
32	Kosuwani	-do-	50/Chutia/Matak/Tea Garden Worker	
33	Chamoni	-do-	N.A.	
Total			896 families	

Source: Saikia, 2004, pp. 150-152

Besides, Sarma (2004) in his study opined that Rohmorria area lost a total of 5400 hectares of land between the years 1923 to 1967, 4600 hectares of land between the years 1967-1996 and 10400 hectares of land between the years 1996 to 2001. Thus, Rohmorria had lost a total of 20400 hectares of land between the years 1923 to 2001. Again, he pointed out that the annual average land loss of the last century in Rohmorria area was 0.114 sq. km/per one km. (Sarma, 2004).

From the above discussion, it is noteworthy that the sources of data collected from both primary and secondary level in different times are not uniform in all aspects.

During the field study different opinions were observed regarding responses of the respondents and the official records. However, in this regard, the researcher has depended on the field based data while analysing the actual picture of erosion faced by the IDPs.

4.3.1.1 Tell of the Kasuwani Gaon, Kasuwani Pathar Gaon and Udalguri Gaon (IDPs of Kasuwani Gaon)

For primary verification of the extent and impact of erosion in Dibrugarh district, from the larger sample, the present study has taken up two villages. The first village is *Kasuwani* that has been witnessing the process of erosion from last 1990's.

During the field visit in 2018, the researcher found 14 families with 64 persons in the village and in 2020 we have found 19 families with 84 persons. Each Family had earlier 4 to 5 *Bighas* or more cultivable land. Now they are managing with 1 to 2 *Bighas* of homestead land only. They had lost a total of 8 hectares of agricultural land. Nevertheless, their livelihood is mainly based on agriculture. Besides, they have at least one kitchen tea garden and received at least a little economic support from it. Sometimes, they had engaged in daily wage earning. During the field study, the researcher found only one (01) grade IV government employee out of the 64 persons, and in 2020 it was the same person out of total 84 persons. Besides, the overall economic conditions of the families were not so weak as the researcher had seen in Morigaon district.

During the field study, the researcher could trace out another 33 families with (187 people) of *Kasuwani gaon* in the *Kasuwani Pathar gaon*. Earlier each Family had 4 to 10 *Bighas* of *patta* land but from 2006 onwards they are settled in the grazing land of *Kasuwani Pathar gaon*. Initially after erosion, these homeless people were in

relief camps and most of them (90%) had received an amount Rs.2000/- and two bundles of roofing sheets. Presently, each Family has been capturing 3 to 5 *bighas* of land. These 33 families had lost a total of 52.8 hectares of *patta* land. Now, they do not have *pattas* against their present habitat. Their economic conditions are far better in comparison to the cases that the researcher has studied in Morigaon district. 36% sample families of Rohmorja are dependent on business and 21% on agriculture as livelihood. For 45.4% families, the source of livelihood is labour. So far as their own opinions are concerned, in comparison to their previous economic status, their present status is less satisfactory. In other words, they are not happy with their present economic status. Among them, the researcher found only 9% government employees in 2018 and it is increased to 15% in 2020.

Besides, they have been able to attain proper educational facilities, provisions of drinking water, sanitation packages and health care services from the Government. Except 3 cases, the researcher found all other families (90%) have *Pacca* houses. 24 families (70%) out of those 33 families secured the provisions of electricity too.

Again the Circle Office informed us that in 2010, under Minimum Need Programme, the Government had allotted 1 *Bigha patta* land to 28 numbers of riverbank erosion-induced displaced families of *Kasuwani gaon* in *Udalguri gaon*. But, according to the *Gaon Burah* of the village and the respondents of our study, it was found that among those 28 families, there are only 15 families from the *Kasuwani* and 7 are from the *Garpara gaon* and others are from nearby riverbank erosion affected villages. Most of those families (87%) obtain a total of Rs. 1600 to 2500/- as one time relief.

4.3.1.2 Tell of the Maijan Gaon (IDPs of Garpara Gaon)

The second sample village of our study under the Chabua Revenue Circle of Dibrugarh district is *Maijan gaon*. Here, 107 erosion affected families of different nearby villages are given settlement by the government. In 2000, the then ruling government, Asom Gana Parishad had settled 42 families of *Garpara gaon* in *Maijan gaon*. They had lost a total of 100.27 hectares of land due to erosion. However, the concerned authority had provided 1 *Bigha patta* land to each family and they had received rupees 18,000/- each against construction of their houses under Indira Awaas Yojana. As immediate compensation, they obtained rupees 2500/- as one time relief. The researcher has taken up the case of those 42 families of *Garpara*, settled in *Maijan* Village. Those 42 families witnessed erosion between the years 1999 to 2000. At present, even after the last 20 years, they have expressed their sorrows for not improving their standards of living. To them, their pre-displaced situations were more prosperous than today.

The researcher during the field study in January, 2020 found 40 families out of the previous 42 families. Two of those families had deceased as opined by the respondents. The 40 families of *Garpara gaon* narrated that their previous economic conditions were far better than the present because earlier they had both homestead and cultivable land and secured their livelihood mostly from agriculture. Now, they are confined with only 1 *bigha* land. Therefore, their livelihood sources have changed from agriculture to daily wage labour or other factory workers. In comparison to *Kasuwani Pather*, here most of the people have *Kacha* houses and income is also less. No one is holding any government job from those families.

The socio-economic life of the erosion affected people of *Kasuwani Pathar gaon* are sound in comparison to the people of *Maijan gaon*. The affected people in *Kasuwani Pathar* had obtained services from Government Public Distribution System under BPL cards and MGNREGA. They do not receive any other compensation in terms of land, money, house or other material except the one time monetary relief in comparison to the other sample families of *Maijan* and *Udalguri* as mentioned above.

Section-IV

4.4 Socio-Economic Impact of Erosion in Both the Cases: A Comparative Perspective

The socio-economic conditions of living of a particular community are mostly dependent on their available avenues to pursue desirable standards. In Assam, previously, agriculture was the prime source of livelihood of a huge group of population. Presently, too agriculture and allied services offered employment to “26.6% working population”, while “30.6% are daily wage earners” in Assam (Assam Human Development Report, 2014, p.52). While talking about the riverbank erosion-induced IDPs, they had lost both homestead and cultivable land due to the process of erosion. Consequently they are forced to live without having avenues for shelter and livelihood. Thus, riverbank erosion can be identified as a curse on the socio-economic conditions of the affected. Considering the sample areas, both Laharighat and Rohmorria have been facing the curse of erosion from more than two decades. A comparative analysis regarding the impact of riverbank erosion in socio-economic lives of the affected people, in both the areas enabled the researcher to

figure out appropriate scenario about their plight and the equitable State's response in both the cases.

To measure the socio-economic impact of erosion in both of the sample areas, the researcher has already taken into consideration some indicators, i.e. the amount of land eroded, affect of erosion on community properties, people's survival mechanisms and alternate livelihood sources, level of income, housing pattern, sanitation and drinking water facilities, rate of educational qualifications attained by the affected group and available health care facilities to the affected. The present research accordingly compares all the above mentioned indicators with regards to both the sample areas and renders a clear picture about the life and livelihood of the affected persons of the universe.

Important here to include that housing patterns, sanitation and drinking water facilities, educational and medical care facilities of people of an area are certain parameters to define socio-economic conditions of living of its residents. Hence, the study goes through the following table 4.12 and shows the above mentioned parameters with regards to the sample villages. Accordingly, the researcher draws a comparative analysis on the socio-economic lives of the riverbank erosion-induced IDPs of Laharighat and Rohmoria.

Table: 4.12: Percentage of Certain Socio-Economic Parameters Measuring the Living Conditions of the Affected Persons of the Sample Villages

Name of the Village (with total numbers of affected families)	Housing pattern (% Kacha or Pacca)	Availability of Sanitation facilities (% Kacha or Pacca)	Drinking Water facilities (Tube well, open well or pond/river)	Availability of Medical facilities (PHC)	Remarks
Kathoni (affected 48 families of Sialmari)	100% Kacha	68.75% Kacha	100% tube well	100%	Medical facilities, such as infra-structural and technical problems, unavailability of adequate medicine, doctors etc. are vital issues as the area is under water for consecutive 3 to 4 months each year.
Pachim Chenimari (affected 56 families of Pambori)	92.85% Kacha	82.14% Kacha	100% tube well	100%	-do-
Kasuwani gaon (affected 19 Families)	79% Kacha	87% Semi-pucca	100% tube well	100%	PHCs lacks medicine and other technical facilities
Kasuwani Pathar (affected 33families of Kasuwani)	24% Kacha	92% Pucca	100% tube well	100%	-do-
Udalguri (affected 15 families of Kasuwani)	53% Kacha	97% Pucca	100% tube well	100%	-do-
Maijan (affected 40 families of Garpara)	65% Kacha	97% Pucca	100% tube well	100%	-do-

Source: Field Study Report, 2020 (Laharighat and Rohmorja)

The above table 4.12 shows a clear picture of people's poor socio-economic conditions in *Kathoni* and *Pachim Chenimari* in comparison to villages of Rohmorja area. In the sample cases of Laharighat, the affected families are completely unaware about hygiene and sanitation facilities. Therefore, they are more vulnerable to various waterborne and infectious diseases. The affected families reported us that though they have a nearby Primary Health Care Centre, but doctors and medicines are available during flood situations only. In normal times, they have to move to Laharighat town for medical help. Regarding the availability of educational facilities, the respondents have admitted that though they have schools under Sarva

Sikshya Abhijan, but practically during the time of flood (3 to 4 months in a year) the schools remain under water for which their students are deprived of the adequate educational facilities.

In comparison to Laharighat, the conditions of Rohmoria are quite normal. The affected people of Rohmoria have facilities of both schools and hospitals providing the basic educational and medical requirements. Most of them have sanitary toilets and *Pucca* houses too which represent their sound socio-economic conditions to some extent.

In addition to it, one's economic conditions can be well understood from some of the parameters of welfare mechanisms adopted by the State, like provisions of BPL cards, Job cards under MGNREGA, IAY facilities and many more. So, to develop a comparative analysis, the researcher has looked at the percentage of beneficiaries from the sample population in the aforesaid prospects.

While considering the issue of social justice and State's response towards the riverbank erosion affected people, it is important to mention here that the deprived group of the two broad areas (i.e.) Laharighat and Rohmoria have not got similar treatment from the State. There are vast differences in socio-economic and living standards of the affected people of both the areas. The people of Laharighat are more vulnerable to impoverishment risks than the people of Rohmoria. The researcher here includes the information attained during the field study and accordingly analysed the State's response by looking at the beneficiaries of different welfare schemes from the sample areas of this study. The table 4.13 below reflects a comparison of the beneficiaries from different welfare schemes adopted by the State in the sample areas.

Table: 4.13: Beneficiaries of Different Welfare Schemes Adopted by the State
Amongst the Sample Villages in the year 2020

Names of the Welfare Schemes	Name of the Villages						Remarks
	Kasuwani			Maijan	Kathoni (people of Sialmari)	Pachim Chenimari (people of Pambori)	(Affected families of Kasuwani goan are available not only in Kasuwani, but in Kasuwani Pathar and Udalguri too.
	Kasuwani pathar	Udalguri	Kasuwani				
MGNREGA	100%	Nil	53%	12.5%	86%	82%	In the two sample villages of Morigaon, people have Job cards, but actual works are hardly available
Public Distribution System (PDS)	91%	100%	100%	92.5%	95.83%	91.07%	
Public Health Engineering (PHE)-Rural Sanitation Scheme	76%	100%	26%	85%	8.3%	8.9%	
National Old Age Pension (NOAP)	45%	53%	Nil	17.5%	22.91%	12.5%	
Pradhan Mantri Gramin Awaas Yojana (PMGAY) earlier Indira Awas Yojana (IAY)	39%	6.6%	5.2%	100%	31.25%	3.57%	All 40 families of Maijan gaon attained Rs.18,000/- as house grant in the year 2000
Pradhan Mantri Ujjwala Yojana	27%	100%	5.2%	70%	18.75%	25%	
Mamoni, Majoni and Janani Surakhshya Yojana	57%	53%	64%	88%	56%	74%	
Pulse Polio Abhijan	100%	100%	100%	100%	100%	100%	
Sarva Sikshya Abhijan	100%	100%	100%	100%	100%	100%	In Morigaon, Schools are heavily affected by flood and related problems for 3-4 months in a year. Continuous education is hampered accordingly.
No. of BPL cards (in Family)	8%	40%	5%	12.5%	100%	100%	
Atal Amrit Abhijan	N/A	N/A	N/A	N/A	4.16%	7.14%	

Source: Field Study Report, January, 2020

Generally the welfare schemes adopted by the State aim at ensuring better shelter and living conditions to the marginal sections of the society. But, while analysing the above information, it is found that the people of Laharighat area are mostly deprived from the benefits of IAY schemes (16%) and the beneficiaries of Rohmorria are 52%. But, it is crucial for our discussion that the government sponsored shelter for the below poverty line people assures some sort of standard life to the weaker sections of the society. However, in Laharighat area, despite being under heavy impoverishment risks, the riverbank erosion-induced IDPs, unable to obtain the benefits of State sponsored welfare schemes because of not having *patta* land, specially in case of IAY scheme. Considering the housing facilities of Morigaon district, the Ministry of Minority Affairs, Government of India in the '*Baseline Survey of Minority Concentrated Districts, District Report Marigaon*' also showed similar picture. It has reported that 10% of Hindus and 5% of Muslim households have been the beneficiaries of Indira Awaas Yojana houses. Again 32% Muslims household possess only single room houses. 92% Muslim households live in Kutcha houses in Morigaon district (<https://www.icssr.org/sites/default/files/districts/Marigaon.pdf>. p.31). Besides, the percentage of people having BPL cards again represents poor economic life of the IDPs of Laharighat area than the affected people in Rohmorria.

All the above mentioned aspects (specially, table 4.13) have helped the researcher to make a conclusion that the State's responses towards the IDPs in providing benefits of various welfare schemes are not equal on one hand and the people in Laharighat are living in comparatively poor socio-economic standards than Rohmorria (Table 4.12) on the other hand.

As regards to the community properties, people of both the areas had lost their schools, hospitals, religious institutions and other common properties. However, the affected people generally re-establish these organizations in the area where they are presently inhabited. It by and large replicates that their common community properties were also affected and damaged by the process of erosion and during the time of its damage and re-establishment, the community as a whole suffers the most. For example, in Rohmoriam, people lost more than 10 educational institutions i.e. *Garpara* L.P.School, *Larupuria* L.P.School, *Panbari* L.P.School, *Nefafu* L.P.School, *Sarisuti* L.P.School, *Mohmara* L.P. School, *Mohmara* M.E. School, *Baliyari* L.P.School, *Ekasuti* L.P. School, *Liting (Niz-Rohmaria)* L.P. School etc.(Saikia, 2004, pp. 156-157). Rohmoriam Police Station, Historic *Garpara Mayamora Satra* are also forcefully moved to nearby areas of Chabua town. The people of Rohmoriam had also lost the Government undertaken *Muga-Eri* Farm covering more than 30 *bighas* of land, a few small tea estates covering more than 100 *bighas*, and colourful biodiversity of the area. Riverbank erosion affects the socio-cultural life of the Rohmoriam area. Before erosion, the area had strong hold in the practice of drama and folk culture. Erosion hampers such cultural activities as the population had been bifurcated in due course (Saikia, 2004, pp. 156-157 and Field study report, 2020, Rohmoriam).

On the same line, Laharighat area had also lost their community *Masjid*, Laharighat *Bazar*, *Sialmari* L.P. School, and many more similar organizations due to the massive riverbank erosion.

Furthermore, the present research comprehends the socio-economic impact of riverbank erosion in the sample areas of Laharighat and Rohmoriam. It brings into

light the question of State-citizenship relationship to theorize the problem and offers suggestions to mitigate the issue of IDPs and their social justice.

Hence, this chapter includes a detailed analysis about the primary as well as secondary data; the researcher has collected throughout the research work. The data on bank erosion, affect on family and socio-economic life of the sample areas are particularly incorporated in this chapter. Besides, the chapter holds discussions on benefits of some of the welfare schemes adopted by the State to comprehend the living standard of the affected population of both the sample areas. Therefore, the discussions of the chapter help the researcher to develop a comparative analysis about the affect of riverbank erosion on land, population, community of the sample areas on the one hand and benefits of welfare mechanisms on the other. However, while looking at the responses of the concerned authority in the welfare packages towards the sample cases, always there is a need to look at the State response on the core issue of riverbank erosion and its mitigation. Because, without mitigating the problem of riverbank erosion, authority cannot stop the sufferings of the IDPs, rather the numbers of IDPs increases along with the extent of riverbank erosion. Therefore, the researcher also tried to examine the measures taken up by the State to check riverbank erosion specially in the sample areas of this study. Here, State response to any issue is always accompanied with popular pressure from the affected sections. Therefore, people's movement and pressure on the authority to settle their problem of riverbank erosion becomes a significant aspect. Considering the aforesaid matters, the researcher is now going to look at the State response towards checking the problem of riverbank erosion, succeeding people's effort and the aspect of politics of erosion associated with political intensions of the dominant political parties of the

State to address the same in the following chapter. Thus, the fifth chapter is going to deal with the main issues of popular movement, State's response and politics of erosion associated with solving the problem of riverbank erosion in the sample areas of the present study. Again, the chapter examines the entitlements and realities associated with the issues of resettlement and rehabilitation of the respondents of our sample area of study.

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Chapter V

Policy Measures and Realities

This chapter has given a detailed description about the policies adopted by the State to address the issues of resettlement and rehabilitation of the riverbank erosion-induced IDPs. Practically, the riverbank erosion-induced internally displaced persons constitute a separate category of people in the State. Irrespective of their caste, creed, sex, age and educational qualifications, they are the marginalized section of society and deserve utmost attention from their concerned authorities. Generally, land is the basis of obtaining all sorts of socio-economic benefits in our social set up. Therefore, while the IDPs comprise the category of landless people as they are forcefully ejected from their land by the process of river bank erosion, it has ultimately left to the State to address their plight very sincerely to maintain social justice and minimum standard of living of this special category of affected people. People's survival mechanism is primarily associated with the livelihood strategies and in case of the riverbank erosion-induced IDPs, land was their only source of livelihood. So, their survival mechanisms are also to be reconstructed in due course of erosion. Here, the role of the State in the way of maintaining resettlement and rehabilitation schemes are significant. Fruitfulness of such schemes can only address the actual plight of the IDPs. The chapter is structured into three *sections* namely, *section I* that starts with the general discussion on the State's response towards the IDPs. This section offers a general understanding about the International Principles available for the IDPs as well as National and Local level policy measures to check riverbank erosion and policies for their resettlement and rehabilitation. The *section*

II includes peoples' protest and State's response to check riverbank erosion in the sample areas of Morigaon and Dibrugarh district of Assam. The plight of IDPs and State's response in terms resettlement and rehabilitation of the sample population, a comparative analysis of entitlements and realities between the IDPs are discussed in the *section III* of this chapter. The last *section IV* of this chapter incorporates the issue of politics of erosion.

Section-I

5.1 State's Response towards the IDPs

The ultimate political authority of the people of a particular nation collectively rests with the State. So, the prime responsibility of the State is to positively think and act to mitigate the problems of its citizens. The political and administrative machinery should sincerely address the issue of the IDPs to maintain citizenship rights and pursue social justice. Upholding social justice and citizenship rights for the IDPs is also a matter of complicity. While discussing the State's response towards IDPs, the present study has gone through the international provisions for IDPs specially advocated by the *United Nations (UN) Handbook for Applying the Guiding Principles on Internal Displacement* and at the same time the available national level policy measures to address the problems of the IDPs. Concentrating on the specific needs of the IDPs worldwide, these *Guiding Principles on Internal Displacement* propagates 30 principles to ensure better standards of living and restoration of their socio-economic and political rights. Here, the researcher discusses a few principles directly related to our study out of the 30 principles

developed by the UN's Office for the Coordination of Humanitarian Affairs (OCHA) and points out their significance.

The first general principle ensures equal rights and freedoms to IDPs along with other people provided by the both international and domestic law.

The third general principle directs primarily the national authorities to provide required protection and humanitarian assistance to the IDPs. Besides, it provides the rights to the IDPs for such request as well as to attain national assistance.

Principle four refers to non-discrimination regarding the protection and assistance to IDPs on one hand and special treatment to certain special sections such as children, specially unaccompanied minors, expectant mothers, mothers with young children, female heads of household, persons with disabilities and elderly persons on the other hand.

The eleventh principle ensures the right to dignity and physical, mental and moral integrity to every IDP. Accordingly, it prohibits all kinds of violence and exploitation against them.

The principle fifteen of UN Guiding Principles for Internal Displacement advocated the right to be protected against forcible return to or resettlement in any place where their life, safety, liberty or health would be at risk.

By addressing the significance of community life, the sixteenth Principle assures the IDPs to have the right to know about of their missing relatives.

Principle seventeenth ensures the right to family of IDPs. So, the authority must take appropriate steps quickly to reunite the separated families particularly when children are involved.

The principle eighteenth provides the right to an adequate standard of living to all IDPs. Further, it directs the competent authorities to ensure safe access to required food and potable water, basic shelter and housing, appropriate clothing, essential medical services and sanitation. Again, it asks the authorities to take special efforts to ensure full participation of women in the planning and distribution of these basic supplies.

Principle nineteenth initiates the need for possible medical care for the IDPs. It offers to the fullest extent practicable and with the least possible delay, the medical care and attention to all wounded, sick and disabled internally displaced persons. Again, it also ensures required psychological and social services to them. It again provides special attention to the health needs of women, including access to female health care providers, services as well as counseling for reproductive health care, for victims of sexual and other abuses. Special attention should also be given to the prevention of contagious and infectious diseases, including HIV/AIDS among internally displaced persons.

The Principle twenty of the UN guiding principle assures every IDP the right to recognition everywhere as a person before the law. Accordingly, the authorities concerned shall issue them all documents necessary for the enjoyment and exercise of their legal rights, and if necessary replace or issue new documents irrespective of men and women in their own names.

The Principle twenty three ensures the right to education. The authorities concerned shall ensure that such displaced children, shall receive free and compulsory education at the primary level. Again, such education should respect their cultural identity, language and religion. Special efforts should be made to ensure the full and

equal participation of women and girls in the educational programmes. Education and training facilities shall be made available to internally displaced persons, in particular to adolescents and women irrespective of their conditions.

The principle twenty eight points out that the concerned authorities have the primary duty to establish conditions and to provide means that allows the internally displaced persons to return voluntarily, in safety and with dignity, to their homes or places of habitual residence, or to resettle voluntarily in another part of the country. Such authorities shall facilitate the reintegration of returned or resettled internally displaced persons. Special efforts for ensuring their full participation in the planning and management of their return or resettlement and reintegration are also significant in this regard.

The principle twenty ninth promotes the right to participate fully and equally in public affairs at all levels and have equal access to public services for the IDPs. Competent authorities have the duty and responsibility to assist in their return and resettlement. Regarding their property and possessions if recovery is not possible, competent authorities shall provide or assist these persons in obtaining appropriate compensation.

The principle thirty upholds that all the authorities concerned shall assist international humanitarian organizations and other appropriate actors in the exercise of their respective mandates. It will speed up the access to internally displaced persons to assist in their return or resettlement and reintegration.

All the above discussed principles render structural and policy level security to all the forcefully uprooted internally displaced people. It tends to foster effective

conditions for better living and livelihood for the IDPs. These principles ask the national governments to act on the similar line as directed by this international policy measures to secure the socio-economic, political and community interests of the IDPs (UN OCHA, 1999).

At the National front, to address the plight of all affected persons and families whose land, property and livelihood are adversely affected by land acquisition or by involuntary displacement of a permanent nature due to any other reason, India has adopted the National Rehabilitation and Resettlement Policy (NRRP), 2007. The policy defined the affected persons, “as the families whose primary place of residence or other property or source of livelihood is adversely affected by the acquisition of land for a project or involuntary displacement for any other reason” (NRRP, 2007, p.36).

The policy ensures satisfactory rehabilitation package, its speedy execution and active participation of the affected families throughout the process. It offers special care for protection of the rights of the weaker sections of society, specially members of the Scheduled Castes and Scheduled Tribes, and to treat their issue with required care and sensitivity. Besides, it provides a better standard of living and sustainable income to the affected families (NRRP, 2007).

The point 7.22.2 of the policy declares that all the involuntary displacement of less than four hundred families or all the people in plain areas or less than two hundred families or all the people in tribal or hilly areas, all affected families must obtain basic infrastructural facilities and services at the resettlement sites as per the norms specified by the appropriate Government. The resettlement plan approved by the

concerned authority must render facilities of drinking water, electricity, schools, dispensaries and access to the resettlement sites amongst others (NRRP, 2007).

Moreover, the policy assures the resettlement and rehabilitation packages specifically for the development project-induced IDPs. The IDPs created by environmental forces or ethnic conflicts or any other reasons are not clearly defined in the policy. In totality, our sample case, i.e. the riverbank erosion-induced displaced people are somewhere aloof from the actual policy directions in India. Hence, they can be identified under the jurisdiction of this policy within the words “involuntary displacement for any other reason” (NRRP, 2007, p.36).

So, the present study highlights the lacuna in national policies in comparison to the international guidelines for the protection of this specific section of riverbank erosion-induced IDPs. Considering the alarming amount of riverbank erosion-induced IDPs in Assam and their continuous impoverished situations, recently the government has initiated a specific policy entitled “Rehabilitation Policy for erosion affected families of Assam, 2020, to rehabilitate erosion affected families across the state as per the reference no. RGR.785/2014/91 dated Dispur, 6th January, 2021 (<http://sdmassam.nic.in/download/notification.pdf>).

The policy admitted that in Assam flood and riverbank erosion pushed a large number of people to homelessness and they generally live on embankments, educational institutions, roadsides, and government lands. The guidelines of State Disaster Relief Funds (SDRF) do not cover the issue of riverbank erosion. Therefore, the issues of rehabilitation of these displaced people are not at all addressed. Rehabilitation Policy of Erosion Affected Families of Assam, 2020, aims to “assist the erosion affected families financially” (Rehabilitation Policy for erosion

affected families of Assam, 2021, p.1). The policy further released that the 15th Finance Commission of India, allocated Rs. 200 Cr. for 2020-21 for both the Union and the State Government and suggested to prepare adequate policy to resettle extensive displacement of people caused by coastal and river erosion. However, the State Government must submit proposals for assistance to resettle those displaced people and accordingly, will attain assistance from National Disaster Relief Fund (NDRF) against their policy measures (Rehabilitation Policy for erosion affected families of Assam, 2021).

The policy upholds certain criteria's for the selection of beneficiaries under this scheme. Accordingly, first, those families lost all their lands due to riverbank erosion and have no other land anywhere in the State. Secondly, those families lost their homestead land but have agricultural lands and thirdly, those families lost their all agricultural lands but have homestead lands. These are the three conditions to select the beneficiaries for this scheme. It is significant to recognize that beneficiary families must have the records of their eroded lands in their names and the families occupying Government land as encroachers shall not eligible for rehabilitation (Rehabilitation Policy for erosion affected families of Assam, 2021).

Regarding the rehabilitation package, the policy has offered special provisions for each section of beneficiary.

For both homeless and landless families, the policy provisions are, first an amount of Rs. 5 Lakhs per *Bigha* or actual land value be given, whichever is less, for purchase of land upto 2.5 *Kathas* only by their own for subsequent construction of house. Secondly, a cash amount of Rs. 1.5 Lakhs for construction of house and Individual Household Latrine (IHHL) be given and thirdly, financial assistance of

Rs. 1 Lakh per *Bigha*, or actual cost of the land, whichever is less, be given for purchase of land, maximum up to 3 (Three) *Bighas*, on their own for agricultural purpose only.

For the homeless families, having their agricultural land, the policy provides an amount of Rs. 5 Lakhs per *Bigha* or actual land value whichever is less, for purchase of land up to 2.5 *Kathas* only, on their own for subsequent construction of house and a cash amount of Rs. 1.5 Lakhs for construction of house and IHHL.

For the families who have lost their all agricultural lands, but have homestead lands, the policy offered financial assistance of Rs. 1.00 lakh per *Bigha*, or actual cost of land, whichever is less, for purchase of land, maximum up to 3 *Bighas*, on their own for agricultural purpose only (Rehabilitation Policy for erosion affected families of Assam, 2021).

Again, the above mentioned benefits are not applicable in case of families having annual income of Rs. 5 Lakhs and if they had received any allotment of Government land earlier under any other scheme. However, to attain the benefits of this scheme, the erosion affected families shall have to submit an application to the concerned Circle Office. Later, “a district level committee” after proper verification would finalize the list of the beneficiaries (Rehabilitation Policy for erosion affected families of Assam, 2021, pp.2-3).

Thus from the above discussion, it appears that this new concrete policy in Assam offers a ray of hope to the riverbank erosion-induced IDPs to overcome their landlessness and supporting them financially. But they still have to wait for a couple of months or so to fulfill the policy requirements to obtain the fruits of this policy in

reality. As the process of implementation of this policy shall or may take some time, so, the present research restrains from the study of the outcomes of this policy.

Therefore, from the already available measures in the field of protection of riverbank erosion-induced IDPs, the researcher offers the following observations and comprehends the scenario of vulnerability of the sample population and the State's response to address their sufferings.

In our case, the IDPs had failed to obtain the fruits of any concrete policy decisions. More or less they were resettled by the administration as per the locally available resources and infrastructural facilities. Here, reveals the difference as the affected persons in varied areas and conditions attained varied treatment. While discussing on the sample areas of the study, it came to notice that the IDPs of Laharighat were less benefitted in terms of material support than the affected people of Rohmoria. The later part of our discussion has incorporated these issues.

It is worth mentioning here that we have already made a comparative analysis between the affected people of both the cases, their living standard and obtaining benefits of different government schemes in the Table 4.12 and 4.13 of our previous chapter. It also upholds the above mentioned statement that IDPs of Laharighat were less benefitted. To substantiate the view, the study moreover analysed the role of the State, in preventing or reducing the plight of the IDPs in the following point (5.2) of our discussion. Here, the measures of the State to check riverbank erosion and addressing the plight of the IDPs become important.

Section-II

5. 2 Preventive Measures: Role of the State and Peoples' Movement

State has the strategic responsibility to ensure dignified living for its citizens irrespective of all conditions. It has to render services with equity to ensure social security and social justice to all its subjects. Therefore, people deserve benefits and privileges from the State by considering their special conditions too. Again, the State has to address the plight of its citizens and if possible should undertake preventive measures to restrict such problems for future ([https://socialprotection-humanrights.org/key-issues/governance-accountability-and-democracy/responsibility-of-the state/#:~:text=States%20have%20the%20legal%20obligation,realize%20their%20rights%20without%20discrimination](https://socialprotection-humanrights.org/key-issues/governance-accountability-and-democracy/responsibility-of-the-state/#:~:text=States%20have%20the%20legal%20obligation,realize%20their%20rights%20without%20discrimination)).

Accordingly, if one look at the problems of riverbank erosion-induced IDPs, the State should have to combat the problem of riverbank erosion first. Hence, to prevent the problem of riverbank erosion, the State usually undertakes a number of preventive measures, such as strengthening of embankments, spurs, dykes, execution of porcupines, geo-bags to protect the dykes from the devastating waves of river.

Phukan, Goswami, Borah, Nath and Mahanta (n.d) in their study opine that the National Flood Policy, 1954 carried out an extensive network of earthen flood embankments construction and maintenance all over the State of Assam in the main stems of the rivers Brahmaputra, Barak and their tributaries as immediate and short term measures under the "Food for Work" programme. Bank revetments, stone spurs, boulder deflectors, timber dampeners, pile screens, reinforced concrete porcupines, leet fanci and other pro-siltation devices are some of the initiatives taken

up in this regard. Similarly, Goswami (n.d.) also pointed out the immediate, short term and long term measures such as embankment, drainage channel, intensive collection of data as well as investigation, channel improvement, construction of storage reservoir and additional embankments suggested by the National Flood Policy, 1954 (http://sdmassam.nic.in/download/workshop_riverbank_erosion/Ppt_by_RK_Goswami_WRD_Deptt.pdf). The Water Resources Department of the Government of Assam also opined that execution of above mentioned immediate and short term measures protect about 16.50 lakh hectares of flood affected areas and that is around 50% flood prone areas of the State. Besides, no permanent and long term measures have been implemented. (<https://waterresources.assam.gov.in/portlets/flood-management>).

In regard flood control and anti-erosion measures, the Water Resources Department of the Government of Assam has been implementing a number of schemes since mid-1950. The achievements of those schemes are displayed in the following table.

Table: 5.1: Flood Control and Anti-Erosion Measures in Assam

Length of Embankment	4473.82 Km
Raising and Strengthening of Embankment	655.502 Km
Anti-erosion and Town Protection Works	911 Nos.
Drainage Scheme	874.966 Km
Sluices (Major and Minor)	94 and 545 Nos.

Source: <https://waterresources.assam.gov.in/portlets/flood-management>

Again, Kataria (2019) released that each state government plans as well as executes their flood management and anti-erosion schemes with their available resources as well as priority. In critical cases only the Central government provides technical guidance and promotional financial assistance to the State. During the 11th Five year

Plan, the Central Government of India launched Flood Management Programme (FMP) and accordingly provided central assistance to the State Governments to carry on the works related to river management, flood control, anti-erosion, drainage development, flood proofing works, restoration of damaged flood management work and anti-sea-erosion works. Such works were continued during 12th Five Year Plan also. For the financial year 2017-18 to 2019-20, FMP is a component of “Flood management and Border Area Programme (FMBAP)”. Assam has also been suffering from flood problems every year. During the 11th and 12th Plan, a total of 141 projects costing Rs. 2383.11 crore were approved under Flood Management Programme in Assam. Since the start of 11th Plan, total Central assistance released to State Government of Assam under FMP is Rs. 1201.36 crore. The Central assistance released to State of Assam during the Financial Year 2017-18 and 2018-19 under FMP are Rs.245.49 crores and Rs. 142.12 crores respectively. (<http://164.100.24.220/loksabhaquestions/annex/171/AU4178.pdf>).

Highlighting the opinion of the then Assam’s Chief Minister Sarbananda Sonowal on the matter of riverbank erosion in Assam, Singh (2020) released that the 15th Finance Commission has included river erosion as a natural calamity and recommended for adequate compensation including rehabilitation under SDRF and National Disaster Relief Fund (NDRF). Again, there is a phenomenal increase of Rs. 772 crore under SDRF and as a part of allocation; the State government has already received Rs. 386 crore (<https://m.economictimes.com/news/politics-and-nation/15th-finance-commission-has-included-river-erosion-as-a-natural-calamity-sarbananda-sonowal/articleshow/76111984.cms>).

Besides, *The South Asia Network on Dams, Rivers and People (SANDRP)* reported that the funds continue to increase for construction of embankments in the State of Assam. In five years from January 2009 to December 2013, the Advisory Committee in the Union Ministry of Water Resources considered the techno-economic viability of irrigation, flood control and multi-purpose project proposals and gave clearance to projects worth Rs. 1762.72 crores.

In this regard, considering the Morigaon district and Dibrugarh districts, between the year 2009 to 2013, the list of the accepted flood management and anti-erosion-projects were as follows:

- Protection of *Sialmari area* from the erosion of the Brahmaputra river in 2002 at the cost of 14.29 (revised cost 25.73) Crore (work type: embankment)
- Protection of *Bhojaikhati, Doligaon and Ulubari area* from the erosion of the Brahmaputra river in 2002 at the cost of 14.52 (revised cost 27.92) Crore (work type: embankment)
- Anti-erosion measures to protect Brahmaputra Dyke on left bank of the Brahmaputra River at the cost of 27.97 Crore and it aimed to benefit 5000 hectare land.
- Emergent measures for protection of Rohmoria in Dibrugarh district at the cost 59.91 Crore and it aimed to benefit 18,000 hectares of land (<https://sandrp.in/tag/riverbank-erosion-in-assam/>).

Again, the *Ministry of Development of North Eastern Region (MDONER)* also implemented certain anti-erosion projects under the sector of flood control and irrigation in Assam since its inception. Accordingly, certain completed projects to

protect riverbank erosion in places like *Margherita*, *Naharkatia* from *Buridehing river* (2012-14), different reaches of *Dansiri* river (2002), protection of Dibrugarh town (2002-05), anti-erosion and flood control schemes in 25 different locations of Brahmaputra and Barak Valley (1999-2006) etc. were significant (https://mdoner.gov.in/dashboard/schemetables/common_all_project_list_scheme.php?scheme=total_doner&&state=assam).

Besides, the Office the Executive Engineer, Dibrugarh Water Resources Division, released that in last 10 years, following preventive measures have taken in Rohmoría area:

- Emergent measures for protection of Rohmoría in Dibrugarh District. Estimated amount was Rs.5981.65 Lakhs.
- Immediate measures to restore Rohmoría area near H.S. School from the river Brahmaputra for 2019-20. Estimated amount was Rs. 774.93 Lakhs.
- Immediate measures to restore Bogoritolia area of Rohmoría from the river Brahmaputra for 2019-20. Estimated amount was Rs. 1056.37 Lakhs.

(Source: RTI Report, Office of the Executive Engineer, Dibrugarh Water Resources Division, 03/03/2021).

Again, in Morigaon district the researcher observed that the bamboo, wooden and concrete porcupines and general sand-full bags were used in the waves of the embankments to reduce the intensity of erosion. Similarly, the researcher found embankment, dyke and bunds to control erosion in Laharighat area. Local people reported that with an embankment of nearly 10 km length from *Dhing* to *Tuloshibari* (*Mikirgaon*), administration tried to safeguard the devastative waves of flood and riverbank erosion (Field Study Report, 2018). Again, as per the official information-

Vide No. NB-Assam/SPD/5481/RIDF-XX(FCP)/147, PSC/2014-15, dated 02/03/2015, from the sources of Water Resources Department, Government of Assam, it was found that the government had taken anti-erosion work to protect Brahmaputra dyke from 69th Km (*Ulubari*) to 78th Km (*Borigon*), worth Rs. 800.00 lakh that would benefit 8000 hectare area in Laharighat. (Field Study Report, Water Resources Department, Morigaon, July 2018). Another approved State Disaster Relief Fund (SDRF) proposal of Water Resources Department, Morigaon, for the year 2016-17, was to initiate immediate measures to B/Dyke from *Dhing* to *Hilloikhunda* (Closing of breach at *Mikirgaon* area (i.e.) 79.9 Km to 80.00th Km) worth Rs. 978.16 Lakh.

Thus, the above discussions have helped us to understand the State's response in addressing the problem of riverbank erosion in Assam in general and Morigaon and Dibrugarh districts in particular. It was obvious that the government measures to protect riverbank erosion were mostly of short-term, area-specific and counted always with the issue of flood.

Besides the above mentioned anti-erosion measures, when the researcher analysed the field study reports and other secondary information, it is found that the role of the State to address the question of riverbank erosion in both the cases are not similar. Though, the State should maintain equal treatment in both the situations, yet while going through figures it is found that due to riverbank erosion a large number of people and a huge amount of land has been affected in Laharighat than Rohmoriam. The impoverishment risks related to the IDPs are more in Laharighat, in comparison to Rohmoriam. But like Rohmoriam, the researcher has never seen adequate steps in Laharighat (Table 5.2). This issue of State's response was also backed by the matter

of peoples' movement. It is thus obvious that the role of the State always become more responsive where the peoples' movement is active. Therefore, at this juncture, the researcher has studied and observed the peoples' movement and corresponding State's response for better understanding of the situation. In case of Rohmoria, people carried on a prolonged popular struggle from 1979 till 2011. But such active and prolonged peoples' movement was somewhere lagging behind in Laharighat area.

The respondents of our sample area of Laharighat informed that in order to protect their area from riverbank erosion, the local people in different times formed different organizations and carried on their movement to draw attention from the authority to check erosion. But activities of such organizations failed to have continuity. Yet, 1990's onwards they had been actively working through different organizations in different time frame. At present, under the banner of *Laharighat Gara-Khohoniya Pratirodh Samity*, the active as well as educated people of the locality working collectively to protect their area from erosion. The organization was formed in 2019 and they were providing physical and material relief to the displaced families during the time of displacement. They usually collect money (locally known as 'Chanda') from different sources like local people, political representatives, business houses and organizations. From December 2020 to March, 2021, they executed twenty bamboo bunds and one bund of sand filled bags in the river. Length of each bamboo bund was of twenty meter. Each bamboo bund was executed at a distance of 200 to 500 meters from the other. They worked themselves without having any help from administration. One of the Office bearers of the organization informed us that earlier under the banner of *Laharighat-Tinsukia Yuba Sangha*, youths collectively worked

for anti-erosion measures in the Laharighat-Tinsukia area. Such works were similar to that of their recent works. But due to displacement of people, distortion of their community structure and movement of young people outside Laharighat in search of work, that organization became inactive or non-functional. He highlighted that under the banner of their current organization they had visited the officials of local administration like Circle Officer, Block Development Officer and Deputy Commissioner, Morigaon. Still they have failed to get any effective response. He said that from 1991, no affected family has obtained land from the government. 80% displaced families were residing in embankment, roadside or in government land by themselves. Around 10% families left their area as they arranged their shelter outside their locality. Another 10% families only abled to arrange a plot of land in the nearby convenient area. Among them 4 to 5% people obtained IAY or PMGAY benefits (Field Study Report, April, 2021). Similarly, the results of the baseline survey (p.31) considering the case of Morigaon district of Assam released the fact that 5% of Muslim households had been the beneficiaries of Indira Awaas Yojana (IAY) houses (<https://www.icssr.org/sites/default/files/districts/Marigaon.pdf>).

The affected families shared the fact that they (93%) had obtained relief in terms of ration (food items like rice, pulses, oil etc.) and a few plastic tarpals in the initial 2-3 weeks after their sudden displacement (Source: Field Study report, December, 2020). The respondents of our sample area informed that in 2017, the Islamic religious leaders with combination of Bhuragaon Markaz (Mosque) arranged '*ijtema*', a religious programme of Islamic people with the noble aim to support the anti-erosion works of the locality. That programme offered a massive gathering of people and accordingly, the bamboos used in tent and other arrangements of the

programme were huge in quantity. Locals arranged the programme in their area so that the bamboos used in the programme can be used for protection of their river bank from devastating erosion at the end of the programme. But due to over flow of the river water during the time of execution of the bamboos led to have less satisfactory results (Source: Field Study Report, January, 2020).

Hence, from the above discussion, it is found that the local organizations along with their locally available resources, conducted small scale arrangements to check riverbank erosion in Laharighat area in different times. They too indulged in democratic methods like putting application, memorandum, demands to their local authorities to combat erosion, but unable to attain remarkable response. Again, the steps that had been taken up by the State to check the problem of erosion were also less effective.

Besides, the common awareness and involvement of local people were also not so dominant in regards to peoples' protest to draw attention towards combating erosion in Laharighat as one could see in Rohmorria (Table 5.2). As a result, they were not getting satisfactory measures from the concerned authority. Therefore, the issue of riverbank erosion has not solved yet, as like the case of Rohmorria, where after the execution of geo-bags in 2011, the process of erosion has almost come to an end.

Further, to compare the sample cases in regards to peoples' movement and the State's response, the researcher has studied and observes the peoples' protest movement and State's response chronologically in order to mitigate the problem of riverbank erosion in Rohmorria area. Generally it is seen that common People have very less options to draw attention from the concerned authority to solve their problems. They sensitively make use of local resources as their weapons and

accordingly tries to attract attention of the authority towards mitigating their common issues. During the field study, the respondents informed us that they had used their oil reservoir in Rohmoriam as a means to draw attention from the concerned authority. They had engaged in prolonged movement from 1979 and generally took the measure of oil blockage and carried on continuous movement till 2011. At the same time, the concerned authority had also undertaken a number of measures to tackle and slow down the process of erosion in Rohmoriam area. The table 5.2 below clearly reflects the State's response in addressing the problem of riverbank erosion in Rohmoriam.

Table: 5.2: Peoples' Movement and State's Response to Address the Problem of Riverbank Erosion in Rohmoriam

Year	People's Movement	State's Response	Remarks
1979	Formation of the Organization "Rohmoriam-Lahoal-Rongagorah-Bokdung Baan Protirodh Samity"		
1979-1997	Submission of Memorandum to the District Authority. Sending delegations to meet the concerned minister. "Rohmoriam Khahaniya-O-Baan Protirodh Samity" established in 1997. Six wooden spurs were constructed by the body with local resources and labour, and a with a little technical support from the Embankment and Development Department, Govt. of Assam	Affected area visit by the ministers	
1998to 2000	The oil India Limited discovered a big oil field at Khagorijan area. people started demanding before OIL's active role to prevent erosion Oil blockade started in protest of non-response of OIL in 16 th August, 1999. A public rally of about 3000 people in Dibrugarh district (HQ). A State level 3 days workshop at Lahowal College on January 2000. In 31 st March, 2000, Bolo Gogain became the 1st Martyr.	N.A	

2001to 2004	Publication of "Burooz" (i.e., 'Spur'), the mouthpiece of "SABKPSM" started in 2001. 4 ½ years old oil blockade was lifted after the assurance from OIL in Jan, 2004.	Ten (10) numbers of iron pipe based dampeners were raised by the Oil India Limited as a pilot project in Oct. 2003. District Administration played the role of mediator between the "RGKPM" and OIL in Jan.2003. OIL promised to raise 360 iron pipe based dampeners.	1. Other participant organizations were: AASU, AATSA, AJYCP, AISF, & Dibrugarh Vikash Mancha.
2005to 2006	On 13 th Dec. 2005, Oil blockade in the Khagorijan oil field was imposed again. Between October to December, 2006, 21, Sub committees were formed in Rohmorja area by the "RGKPM" and local tea garden villages were included. On 21-22 nd Feb.2006, "Dibrugarh Tinisukia Ban-Khahoniya Protirodhi-Mancha" was formed. And On 21 & 22 nd Feb.2006, "Dibrugarh Tinisukia Baan- Khahoniya Protirodhi-Mancha" was formed.	On 17th Jan, 2006, the P.M. Man Mohan Singh visited Rohmorja. On Sept. 2006, Specially Empowered Highly Technical Expert Committee, from Delhi visited Rohmorja along with members of the Brahmaputra board	Delegates of 'Asom Sahitya Sabha' visited Rohmorja, and resolved that if within 45 days, the PM did not visit Rohmorja, the 'Sabha' will lead an economic blockade.
2007	On May, 2007, protesters conduct Procession in Chabua with 200 participants and Memorandum given to Circle Officer. On 4 th Sept.2007,Oil blockade was lifted after getting assurance from OIL to execute promised Plan. Oil blockade started again in Nov.20 th , 2007. On 20 th Dec. 2007, around 1500 people blockaded the N.H-37 near Chabua Airport Base. On 23 rd Dec. 400 protesters arranged a torch light Cycle rally against CRPF act in Rohmorja.	On March 29-31 st , 2007, Political workshop in Rohmorja. Intermittent discussions with the administration, E&D department and E&D department took up a scheme to put concrete porcupines (budget: Rs. 80 lakhs) near Bogoritoli area where massive erosion was going on at that time. Between April-Aug.2007 Oil India Limited raised 24 metal pipe based Dampeners. Plan implementing agency was DRDA, Dibrugarh. Nov. 13 th 2007--Central Water Resources Minister Saifuddin Sauz visited the erosion affected places, promised to incorporate Rohmorja issue in the next Five Year plan and to declare a short term package for immediate remedial measure. Tear gas and stone pelting by the CRPF on the protesting people and 180 persons were injured on 20 th Dec.2007. 2007 and on 24 th Dec. One day long Dibrugarh District Bandh call by the "RGKPM" and other participants were AASU, AATSA, AJYCP, and AATASU & MYCS.	

2008	<p>On 16th April, 2008, Procession within Rohmoria amidst the Bihu festival conducted.</p> <p>On 8th Sept 2008 , a procession from Majjan Thakur Than to Dibrugarh D.C. Office (Distance 6 km) was carried out by 6000 participants and Memorandum sent to the P.M. and President of India through the D.C. Participating organizations were KMSS, GSS, AASU, AATSA, AJYCP, AISF, MYCS, GSM, Chabua etc.</p>	<p>On 2-3rd March 2008, a political workshop arranged in Rohmoria.</p>	
2009		<p>• All Party meetings of various sorts.</p>	
2010	<p>Fresh erosion occurred and 76 families were evicted. 61 families were given 3 Kathas of land by the administration and rendered 2 tube wells, assurance of houses (48,000/- per house hold) under the "IAY" scheme.</p> <p>15th August was celebrated in Rohmoria as the "Banchana Deewas:"</p> <p>Between 16-22nd Sept. a delegation directly met & gave memorandum to the President, PM of India & the Secretary, WRD.</p>		
2011	<p>The local people are dissatisfied with the progress rate of the geo-fabric technology project and reveals their doubt in media that like earlier schemes it may also be a just a means of attracting voters before the election.</p>	<p>On 4th Jan, 2011, the geo-fabric technology project (Rs 52.36-cr) launched by the then state water resources minister Prithibi Majhi.</p> <p>In May-June , 2011,- According to the official source of WRD (The Times of India, June 22, 2011), out of about 18,750 units of porcupines planned to set up on a 6.5-km stretch of the river bank from Gorpara to Rohmoria, more than 14,000 porcupines (almost 75%) are already laid, and the rest of the task would take another 3 to 4 weeks for completion./ Official source said that work had to be suspended from May due to inclement weather and is expected to start again from October 2011.</p> <p>News (Times of India, June 3, 2011) reveals that anomalies in works were detected at the site recently by an inspection team from CWC. The CWC report submitted to the court said that only 50,000 geo-bags - not even a third of the targeted quantity of 4, 34,344 of geo-bags were supplied at the site till 2nd May.</p>	<p>Examining the report by CWC, Guwahati High Court ordered the State Government to inform the about the progress of work at the site. With reference to a PIL, the court issued an order on 31st May, asking the State Government to inform on the matter by 27th June, 2011.</p>

Source: Borgohain, 2011, pp.1-12

The table 5.2 shows the various measures taken up by the State in Rohmoría and finally the execution of geo-bags technology in 2011. It reflects that the corresponding peoples' movement bound the State to actively deal with the case of Rohmoría. In addition to the above activities, the daily newspaper, *the Telegraph*, on 3rd June 2017, released that the Central Water Commission has sanctioned Rs. 78.48 crore for erosion and flood control works on a 6.4 km stretch along the Brahmaputra at Rohmoría to protect Dibrugarh town (<https://www.telegraphindia.com/north-east/rs-78cr-for-anti-erosion-work/cid/1433151>).

It is clear from the above discussions that continuous peoples' involvement was seen in Rohmoría area regarding the problem of riverbank erosion and its mitigation. But such continuous and active involvement and peoples' movement was missing in Laharighat area. In spite of their various movements in different times in support of IDPs and appealed towards the authority to control erosion, yet they have failed to attract the attention of the authority to take adequate steps to address their problem. Due to the poor economic condition, lack of education and awareness, complete destruction of social and community structure in Laharighat area, the peoples' voice were somewhere stifled. During the field observation, the researcher found that the people of Rohmoría were economically sound and aware about their community structure and resources in comparison to Laharighat. In Laharighat, the level of educational achievements amongst the people was very low. They were previously engaged in cultivation and after facing the havoc of erosion, most of them were engaged in the daily wage earnings. It is because, the affected people first had to think about their food rather than coming out and engage in protest activities to draw

attention of the State to address their cause. Therefore, respondents opined that the State's role is indifferent to address the issue of Laharighat.

Besides, it is significant here that the Rohmoría area has faced erosion at a very limited area that is only on a stretch of 9 km. But in Laharighat, the whole Circle has been facing the problem of erosion that is around 30-35 km area (Field Study Report, January 2020). Hence, the numbers of IDPs were much higher in Laharighat. The process of riverbank erosion is always adding new people under its ambit. These IDPs are primarily dependent on the State to restart their new life after displacement. Accordingly, the question of resettlement and rehabilitation became very important. Hence, the researcher has incorporated the discussion on plight of the IDPs and their resettlement and rehabilitation in the following points of the study.

Section-III

5.3 Plight of IDPs: Resettlement and Rehabilitation

Riverbank erosion-induced IDPs comprise a large marginal group in the social structure of Assam. They are often deprived of their right to dignified life, shelter, education, health care facilities, and other pre-requisites for sound socio-political and economic life. As a socially vulnerable group, they are homeless and landless which by and large put them in the situations of joblessness and deprivation from the community life. They have to forcefully move from their original habitat lands and usually deprived of social co-operative mechanisms as their familial and societal structure was bifurcated in due course.

Hence, the issue of resettlement and rehabilitation becomes crucial to restore their basic standards of living. It is noteworthy that loss of land wiped away their physical settlement and economic means of livelihood. So, they require land for constructing their physical settlement and land as a source of livelihood as agriculture is the prime occupation for such riparian people. Now, the IDPs have to look at only the State to address their issues of resettlement and rehabilitation. Thus, it is the duty of the State to provide their physical and economic settlement.

Sarma (2007) expressed that from 1981 to 2001, the Government of Assam initiated a number of resettlement as well as rehabilitation plans to address the affected persons but they were minimal as they provided a plot of land for settlement to a few families. Till 2001, 5.96% of the affected families were rehabilitated by the authority in various parts of the district where barren government land were available. Sarma again admitted that only 0.94 hectare/per family of land were provided to most of the affected families for their dwelling and agricultural purpose. The irony here is that as per the official record “the affected people were allotted a land ranging from 1 to ½ Bigha (0.331 acre to 0.166 acre) of land per family, but in reality they got only two kathas (0.132 acre to 0.264 acre) of land which is too small for a family” (p.87).

Mentioning the number of rehabilitated families in Morigaon District between the years 1981 to 2001 along with Indira Awaas Yojana (IAY) facilities to the same group, Sarma (2007) incorporated the following table.

Table: 5.3: Village-wise list of Resettlement and Rehabilitation between 1981-2001
in Segments of Morigaon

Circles	Mouza	Village (resettlement conducted)	Area Allotted (Hectare)	No. of Rehabilitated Families	No. IAY Beneficiary (Family)
Bhuragaon	Bhuragaon	Kupatimari	0.13139	2	1
	Bokani	Borkur	0.0538	1	1
		Mahmari	4.5988	38	8
		Malahu	2.7593	21	9
		Dighaliali	10.2487	78	18
		Jengpari	11.5627	92	12
		Lengeribori	14.5848	113	23
		Sutipar	3.2849	36	6
Laharigaht	Moirabari	Borbori Reserve	3.4425	181	18
	Laharighat	Kathoni	5.4397	81	16
		Bargoni Reserve	2.9432	57	25
Mayong	Niz-Ghagua	Sukatiputa Habi	4.5988	35	13
	Manaha	Hariabari	18.0010	137	39
Morigaon	Niz-Tetelia	Damal	5.3096	81	81
Mikirbbeta	Silpukhri	Deowarabori	7.4895	57	5
		Total	94.4487	1010 Nos. of Families	274 Nos. of families

Source: Sarma, 2007, p.88

In July 2018, the correspondents of the District Revenue Department (Morigaon) during the field study informed the researcher that between the year 1981-2001, 81 families were rehabilitated in *Kathoni* village with an amount of 5.4397 hectares of

land. Out of those 81 families, only 16 families got IAY house in the same period. Again, the Circle Office informed us that in the year 2007, Laharighat Circle gave resettlement to 547 riverbank erosion affected families (Field study report, Laharighat Circle Office, 2018).

During the field study, on July, 2018, the researcher came to know that originally, the *Sialmari gaon* of Laharighat area comprised of mostly the Kaibarta and Muslim population. Riverbank erosion compelled more than 200 families of the village to move from their home and under compulsion scattered in the nearby areas. The Muslim homeless people were mostly found in embankment and the affected Hindus were scattered in neighboring areas. The affected families never obtained any benefits of resettlement or rehabilitation schemes carried out by the concerned authority. Rather, they have managed their temporary settlement at their own cost. Even the affected families did not get any land from the government. Only a few families (25-30 families) received 2 bundles of roofing sheets and Rs. 1000/- to 2000/- as one time relief. As informed by the *Gaon Burah*, most of such families witnessed erosion, 3 to 4 times in their life span and lost their homestead and agricultural land, which was their only source of livelihood. People in the embankment even failed to manage their basic necessities of life and livelihood. It affected the education of their children. Therefore, rate of school drop-outs among their children were found very high. In search of livelihood, boys usually after attaining 15/16 years of age, were found to be migrated to places like Kerala, Manipur, Dimapur, Arunachal Pradesh, Sivsagar, Guwahati and other convenient places as per their livelihood options. The maximum life expectancy among them

was 60 to 70 years. The *Gaon Burah* also admitted the inadequacy in health care facilities where doctors were far from their reach and the Primary Health Centre (PHC) became active during flood situations only.

In, July, 2018, the researcher could trace out 30 families of previous *Sialmari* village in *Kathoni* village. They were shifted in 1990 and now settled in government land, without having *pattas*. The affected families reported that they did not get any benefits of resettlement and rehabilitation schemes from the concerned authority.

The people of *Pambori* village also expressed their sorrows in the similar line to that of the affected people of *Sialmari*. The original inhabitants of this village were *Mushi*, *Kachari* and Muslim population. According to the data collected from the Laharighat Circle Office, *Pambori* village had been partially affected in 2006 and eroded an area of 112.17 hectare and affected 129 families. During the field study in July, 2018, the researcher found 35 homeless families of *Pambori* in *Pachim Chenimari*. The respondents said that they were settled by themselves in the government land as per the permission of the local administration, but no body of them was benefitted from any resettlement and rehabilitation scheme adopted by the concerned authority.

Again, the Chabua Circle Office informed that till 2010, the Circle had lost 6297.33 hectares (47230 *Bighas*) of land and rendered 769 families homeless. Among those, 354 families were resettled by the Government. Other 415 families resettled at their own cost (Field Study Report, Chabua Revenue Circle, July, 2018).

During field study in July 2018, from the sample village *Kasuwani*, the researcher found 03 IAY beneficiary families out of the present 14 families. In *Kasuwani*

Pathar gaon, there were 13 IAY beneficiaries out of the sampled 33 families and in *Maijan* village, the sample 42 families of *Garpara*, all of them received Rs. 18000/- against their housing facilities (Field Study Report, July, 2018).

Considering the above information, it is important to note here that the researcher did not get complete records in certain aspects like full records of resettlement and compensation and relief measures from the concerned Offices. Hence, the researcher relied on the narratives of the respondents to analyse the sufferings of the riverbank erosion-induced IDPs and the corresponding State's response to address their plight.

5.4 Comparison of Entitlements and Realities

As human being, each one of us has entitled to pursue dignified living. Civil rights, human dignity and economic entitlements are pre-requisites to ensure better social, economic, political, cultural and community life to each individual. The legitimate political structure or more specifically the State has the responsibility to bring forth such conditions. Conditions for better living, shelter, livelihood facilities, community life and related requirements etc. have to be guaranteed by the State and must be obtained by all sections of people without any discrimination. Here, we may critically look at the plight of the IDPs who had lost the basic avenues for their dignified living and generally fall under impoverishment risks. At the initial stage of displacement, IDPs have been forcefully uprooted from almost all kinds of their avenues, i.e. loss of homestead and agricultural land pushed them to a situation of homeless and jobless. It usually happens in most of the cases as agriculture is the main source of livelihood of the riparian people and they are the worst sufferer of riverbank erosion. Subsequently, homelessness and joblessness bring them to the

situations of marginalization, food insecurity, less medical facilities, loss of access to common property resources and community disarticulation (Cernea, 2000). Thus, assuring equal citizenship rights for the IDPs is somewhere doubtful and it requires authentic comparison between entitlements of the IDPs and the ground realities. Laharighat Circle lost a total of 5833.16 hectares of land and 6543 families till 2020. In comparison to it, Chabua Circle lost 6297.33 hectares of land and left 769 families homeless till 2010. Again, Laharighat has been facing continuous erosion since 1982. Now, the process of erosion had stopped in Rohmorja area under the Chabua Circle after the execution of geo-bags projects after 2011. From the already discussed information about the extent and impact of riverbank erosion in the previous chapter, it is found that Chabua Circle had lost 464 hectares of land more than the Laharighat Circle. But Laharighat witnessed erosion 8.5 times more in numbers of erosion affected families than the Chabua Circle. Again, overall economic conditions of the families in Laharighat are worse than Chabua. Thus, maintaining equity in both the cases is also a complex scenario. At this critical point, thus, the study looked at the role of the State in empathy. Here, the researcher includes the scenario of the sample villages to critically assess the State's response towards the IDPs in both the cases, which is displayed in the following table (5.4).

Table: 5.4: Amount of Land Erosion, Family Affected and State's Initiative in Sample Villages of Laharighat Area

Sl. No	Name of the village (before Erosion)	No of available Families	Total amount of land erosion	Present habitat Resettlement (land) provided by the Concerned authority	Rehabilitation packages adopted by the State or any financial help to restore livelihood	Remarks
1	Sialmari	48	77.18 hectare	Concerned authority asked the people to prepare their shelter in Kathoni gaon	Nil	No <i>patta</i> against present habitat
2	Pambori	56	91.6 hectare	Concerned authority did not allotted land for their resettlement; they are now residing in their temporary shelter in the land of Pachim Chenemari Lower Primary School.	Nil	No <i>patta</i> against present habitat
To tal		104 families	168.78 hectare			

Source: Field Study Report, January, 2020

The above table (5.4) displays that in both the villages in Laharighat, the sample families did not get any land for their resettlement rather the concerned authority (i.e.) the local administration shows them the place, where they temporarily prepared their makeshift homes. Accordingly, they did not have *pattas* against their occupied land. Here, the rate of land eroded per family was 1.6 hectare.

Similarly in the following table (5.5), the researcher has displayed the amount of land eroded, families affected and State's initiative in terms of resettlement and rehabilitation of the sample villages in Rohmoria area.

Table: 5.5: Amount of Land Erosion, Family Affected and State's Initiative in Sample Villages of Rohmoriam Area

Sl. No	Name of the village (before Erosion)	No of Families (visited)	Total amount of land erosion	State's Initiative in terms of compensation/ resettlement (land) (kasuwani gaon)	Rehabilitation by the Concerned Authority	Remarks
1	Kasuwani gaon (partially affected)	19 families	8 hectare	No compensation till date in money or material form	Nil	Only 19 families are presently residing
	--Do--	33 families	52.8 hectare	Concerned Authority provided land for resettlement—in Kasuwani Pathar gaon (people acquiring 1 to 4 bighas of land by their own)	Nil.	(no land pattas were given against their settlement in grazing land in Kasuwani Pathar)
	-Do-	15 families	44.8 hectare	Concerned Authority provided 01 Bigha land with land pattas' to per affected family in Udalguri gaon in 2010	Nil	As per Circle office records 28 families of Kasuwani gaon were got settlement in Udalguri gaon, but Gaon Burah of Kasuwani declares that out of those 28 families, only 15 families are from Kasuwani and rests are from other villages.
2	Garpara gaon	40 families	100.27 Hectare	Concerned Authority provided had given 1bigha patta land to each family in Maijan gaon in the year 2000.	Rs. 2500/- to each family as one time support in 2000.	
Total		107 family	205.87 hectare			

Source: Field Study Report, 2020

The table 5.5 displays that each homeless family of *Garpara gaon* (available at *Maijan gaon*), *Kasuwani gaon* (available at *Udalguri gaon*) obtained 1 *bigha* of *patta* land from the concerned authority for their resettlement. The displaced families of *Kasuwani* (available at *Kasuwani Pathar gaon*) have been occupying government land of 3 to 4 *bighas* each and yet to have *pattas* from the concerned authority. Again the erosion affected 19 families of *Kasuwani gaon* had lost their cultivable land, which was their main source of livelihood. But they have the homestead land in *Kasuwani gaon* and not at all obtained any land for their rehabilitation. In Rohmoriam each family had lost 1.9 hectares of land.

While comparing the impact of riverbank erosion in both the sample areas of our study, the researcher has found that the rate of average family wise land eroded was a bit higher in Rohmoriam than Laharighat area. At the same time the initiatives of the concerned authority in terms of resettlement were absent in Laharighat. But in Rohmoriam, out of our sample population, 51 % displaced families obtained 1 *bigha patta* land from the concerned authority for resettlement. Again, another 31% were resettled in government grazing lands as per permission of the local administration and occupying up to 4 *bighas* of land. Only 18% sample families living in *Kasuwani gaon* did not obtain land from the authority. It is remarkable that they were not homeless; rather they lost their cultivable land. Finally, it is observed that the resettlement issues of IDPs of Laharighat area had not at all entertained by the concerned authority. On the other hand, majority of the homeless IDPs of Rohmoriam obtained a minimum amount of *patta* land for construction of their houses in the post-displacement period. In addition to land, the 42 displaced families of *Garpara gaon* obtained Rs. 18,000/- each for construction of their houses under IAY scheme

in *Maijan gaon*. Such efforts were absent in regards to the other sample families of our study. Thus, the study reveals that the responses of the authority in regards to resettlement of IDPs in Laharighat as well as in Rohmoriam are not equal as well as equitable. Despite of more socio-economic backwardness, the resettlement issues of the IDPs of Laharighat had been hardly addressed by the authority. But in Rohmoriam, minimum efforts from the concerned authority had been witnessed on the part of arranging the resettlement for the homeless IDP.

While comparing the findings of the sample areas in Morigaon and Dibrugarh district, the researcher has gone through certain limitations. It is to be admitted that the information received from the Revenue Circle offices were not adequate. While the Laharighat Circle could provide the village-wise detailed information about the amount of land erosion and family affected in number, the Chabua Circle could only give the total figure of land erosion and names of the affected villages. It is again problematic for the researcher to trace out the total population, who are the IDPs and how much affect, a village bears in Rohmoriam area. Thus, while analysing the findings of the study, the researcher had incorporated the primary data along with the records obtained from the concerned Revenue Circle Offices.

In the annual administrative report, Laharighat Circle Office declared that there was a large amount of population displacement due to severe land erosion caused by the river Brahmaputra. A total of 315 families were residing on the embankment of the Brahmaputra. (Annual administrative report of the Circle, submitted to Deputy Commissioner, Morigaon, up to September, 2015, Field study report, 2018). Rohmoriam never had such experience as the area had sufficient land to render

alternative accommodation to the affected people (Field Study Report, Laharighat and Chabua Circle Offices, July, 2018).

When the researcher compares the issues of resettlement and rehabilitation among the sample population of the study, the issue of their entitlements and realities are also appeared in the forefront. Here, the study observes that practically, the people of Laharighat area are economically weak and have less civil and social avenues than that of Rohmoriam. Therefore, the vulnerability of riverbank erosion as well as impoverishment risks are more in Laharighat than Rohmoriam. The Assam Human Development Report, 2014 also substantiated the statement that Morigaon district was much backward than that of Dibrugarh district when one consider the parameters of mean years of schooling, per capita income, dimensional achievements in income, multidimensional poverty, agricultural landlessness, employment and livelihood quality index and gender development index. Besides, in 2007, the University Grants Commission under the Ministry of Human Resources Development (MHRD), Government of India, identified 22 minority concentrated districts, out of 105 educationally backward districts based on the criterion of gross enrollment ratio. The Morigaon district of Assam was placed in both the lists at the rank of 22 and 105. Assam headed the lists of 22 where Assam stood at first with 14 districts, where Morigaon stood at 6th place. In opposition to it, the name of Dibrugarh was never seen in the list (https://twocircles.net/2008mar11/22_minority_concentration_districts_among_105_most_educationally_backward_districts.html). Thus, the two information discussed above helped the researcher to understand the socio-economic conditions of the people of Laharighat area. During our field study, it is also seen that, the IDPs of Laharighat are always in deplorable conditions than

Rohmorla. The present research work comprehends both the situations and points out the real hurdles faced by the people of Laharighat than Rohmorla.

Besides, when we study the anti-erosion measures of the State and securing the minimum standards of living for riverbank erosion-induced IDPs, we have hardly found satisfactory steps taken up by the concerned authority. In this regard, the researcher considers the significance of the issue of politics of erosion. The issue includes the intension of the major political parties towards mitigating the problem of riverbank erosion and the issues of subsequent IDPs. Thus, in the following point i.e. politics of erosion, the researcher has analysed the political interest of the major players of Assam and the way they have highlighted the issue in their party manifestoes during the time of election to capture more votes in their favour. Here, politics of erosion is incorporated in the following point (5.5) to know the intention of the dominant political parties of Assam and the way they handle the issue of riverbank erosion.

Section-IV

5.5 Politics of Erosion

Riverbank Erosion is endemic for the living and livelihood of the people of the sample areas of the present study. The question of survival mechanisms of the IDPs and the corresponding State's response appears as crucial point of analysis here. Practically, riverbank erosion has posed a threat to the existence and development of the lives of the IDPs as they are primarily deprived of their citizenship rights, more particularly, the right to life which we have already analysed in the second chapter i.e. the interrelation: State, society and citizenship (Point 2.5). Hence, in this point of

discussion, the researcher highlights that the issue of riverbank erosion has a political dimension too. By the term politics of erosion, the researcher implies that either the issue of riverbank erosion is able to attain its due space in the political affairs of the State or Government or failed to attain required attention from the concerned authority. It directly or indirectly influences the political authority, (i.e). State and consequently renders policy benefits to address the problem of riverbank erosion. Politics of erosion again highlights the phenomenon where the issue of riverbank erosion becomes politicized in a way that either the State or the government took the issue under their scheme of action or neglect the issue. In a situation like Assam, this problem has hardly been able to secure a central place in the agenda of the government and the political parties. Political parties seem to be hurriedly run away from the scene when this problem comes to limelight as the manifestoes of major political parties never include this aspect with required importance. For understanding this aspect, we may go through the election campaigns of the last two Vidhan Sabha Elections, 2016 and 2021 and Lok Sabha Elections, 2019 in Assam. In the 'Assam Vision Document 2016-2025' (2016), the current leading party BJP, openly declared that for flood control and prevention of erosion they will undertake the following steps. (a) To find out and solve the problem of siltation by dredging the bed of the river Brahmaputra (b) Activities of the Brahmaputra Board to be evaluated. (c) Under the scheme of MGNREGA, they would specially promote plantation of bamboos and mangroves along the river banks to prevent erosion (d) State will sponsor an insurance and rehabilitation scheme for the affected people of flood and river bank erosion.

Again, the Congress party promised to use modern technology to harness the waters of the Brahmaputra and promised “to find a permanent solution to the problems of flood and soil erosion” (Manifesto, ‘we will deliver’, Lok Sabha Elections, 2019, Indian National Congress p.42). The party tended to “examine the opportunity provided by the mighty Brahmaputra to create a multi-modal transport system in the North Eastern region” (Manifesto, ‘we will deliver’, Lok Sabha Elections, 2019, Indian National Congress p.42). Besides, on the issue of riverbank erosion, the congress party in Assam during the time of Vidhan Sabha election, 2021 declared in their manifesto that they “will consider the problem of erosion as top priority and will take up the matter to the Central Government to recognize erosion damage, repairing/protection work as a calamity under SDRF”. The congress party again focuses on introduction of a database on the details of the land eroded along with the names of displaced persons and their present address and occupation (<https://nenow.in/guwahati/highlights-of-congress-manifesto-for-assam-assembly-election-2021.html>).

From the above discussion, it can be pointed out that the dominant political parties in Assam in their election campaign took the issue of erosion to gain popular support. But according to the narratives of our respondents of the sample villages which we have already analysed in our previous chapters, it is revealed that the issue of riverbank erosion and consequent IDPs failed to obtain the fruits of the measures adopted by the State. At this juncture, one can relate the aspect of politics with that of riverbank erosion. The impact of riverbank erosion therefore, appears as a political issue. Here, by incorporating the issue of riverbank erosion in the party manifestoes, the political parties directly aim to secure votes of the affected persons

and their supportive groups. But regarding the execution of adequate measures to mitigate the problem of riverbank erosion and affected IDPs, they hardly satisfy the victims.

In our study, it is found that riverbank erosion has been going on in Laharighat area since the years 1980-1982. Subsequently, some preventive measures like long embankment, revetment, bamboo as well as wooden spurs and retirement bunds have been taken up by the Water Resources Department and Brahmaputra Board simultaneously. But such initiatives failed to achieve any fruitful outcome in Laharighat area. In Rohmoria, the problem of erosion was more acute since 1970's. The continuous popular struggle on the other hand led the authority to undertake schemes like iron porcupines, stone spurs and geo-bags. Significantly, after the execution of geo-bags technology in 2011, the affects of riverbank erosion have seen to be very minimal in Rohmoria area. These reflect the initiative of the State to address the plight of the displaced and its results in the long run to practically deal with the issue.

However, from the above discussion the chapter offers an overall understanding about the available international, national and local level policy measures to address the plight of the IDPs. Again, the chapter analyses the anti-erosion measures taken up in Assam in general and Laharighat and Rohmoria areas in particular to combat the problem of riverbank erosion. However, the popular movement and people's protest to draw attention from the authority in both the cases are comparatively analysed here. Again, the issue of politics of erosion is also addressed in this chapter to comprehend the role of the dominant political parties in mitigating the problem of riverbank erosion and the sufferings of the subsequent displaced persons. Besides,

the chapter analyses the issues of resettlement and rehabilitation of the sample population of the universe of this research work. Hence, this chapter helps our study to move to the final chapter of this research work i.e. *conclusion* and paved the way for summing up the findings of the whole study.

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Chapter VI

Conclusion

The chapter “*Conclusion*” is the summary of all the foregoing discussions of the previous five chapters. The chapter also includes the major findings of the study. While composing the summary of the already studied five chapters, the researcher has also highlighted the major suggestions to tackle the problem of riverbank erosion-induced IDPs in this chapter. This chapter is structured in the following sections. *Section I* includes the “Introduction” explaining the basic aspect of our research work. *Section II* comprises of the “Brief analysis of the previous chapters” and *section III* offers major findings of our study along with major suggestions.

Section-I

6.1 Introduction

The present research was started with an attempt to understand the problem of riverbank erosion in Assam, that has been posing threat to the Assam’s geographical strength, rural economy and non-traditional security threats to the lives and livelihood of the riverbank erosion-induced IDPs of Assam, more precisely since the great earthquake of 1950. The chapter incorporates a detailed analysis of the whole area of research that is Assam in general and Morigaon and Dibrugarh districts in particular. The issues of riverbank erosion-induced IDPs in Laharighat and Rohmorria areas and the role of the State in mitigating the plight of the affected people are also critically analysed here. Practically, resettlement and rehabilitation are two sensitive areas and can be termed effective when the affected sections obtain

basic requirements to restore their shelter and livelihood. Thus, the State has to render careful services to maintain dignified standards of living to the affected persons. The affected sections are generally marginalized groups and are often denied the basic requirements to pursue quality living. The question of social justice is the theoretical aspect here to assess the role of the State towards the affected. The chapter studies the conditions of the riverbank erosion-induced IDPs in Laharighat and Rohmoriam areas and the State's response in both the cases to develop a comparative and critical analysis on the matter.

Section-II

6.2 A Brief Analysis of the Previous Chapters

The first chapter entitled "*Introduction*" provides a comprehensive analysis of the problems faced by the riverbank erosion-induced IDPs of Assam, more particularly of Laharighat area of Morigaon district and Rohmoriam area of Dibrugarh district. The chapter begins with a systematic analysis of the statement of the problem, i.e. the cause of the IDPs and the matters of social justice and citizenship rights associated with the issue. Introducing the research questions and objectives of the study, the first chapter develops the research methodology and design of the whole thesis. Here, the study has taken up a number of indicators to carry on the study and selected the sample villages, namely *Sialmari* and *Pambori* from Laharighat and *Kasuwani* and *Maijan* from Rohmoriam area. The respondents of the first two villages, i.e. *Sialmari* and *Maijan* (IDPs of *Garpara gaon*) from the Morigaon and Dibrugarh districts respectively were displaced two to three decades ago. Again, *Pambori* is comparatively a recently eroded village than *Sialmari* from the

Laharighat Circle of Morigaon district. Kasuwani gaon is also experiencing erosion very recently, which is in the partially affected list in Chabua Circle under Dibrugarh district. It is noteworthy that the *Maijan gaon* in Rohmoria under the Dibrugarh district is a village that accommodates a number of riverbank erosion-induced IDPs, but *Maijan* has never experienced riverbank erosion. Thus, the researcher has selected these four sample villages to comparatively analyse the vulnerabilities faced by riverbank erosion among the respondents of the villages. Accordingly, the role of the State in addressing the plight of the IDPs is also examined in this study. Besides, the chapter indicates the significance and limitations of the research too. When we consider the cases of IDPs, development project-induced IDPs and conflict-induced IDPs are completely different than riverbank erosion-induced IDPs. Here, in case of riverbank erosion, people permanently lost their land. There is hardly any chance for them to get it back, though sometimes new land appears in the form of *char* lands or *chaporis*. In totality, the first chapter introduces the whole issue of riverbank erosion-induced IDPs in Assam and opens up the theoretical and practical endeavours of the researcher to study the problem. Through reviewing the existing literature, the study attempts to offer an open discussion on the issue of riverbank erosion in Assam. Hence, the Chapter I is an introductory analysis of the serious problem of riverbank erosion faced by Assam in general and by the people of Laharighat and Rohmoria areas in particular. The first chapter also includes a brief idea about the design of the chapters along with their contents. Chapter I is therefore, an open statement on the available knowledge regarding the IDPs in Assam. Also the chapter provides a

minute observation about the case of riverbank erosion-induced IDPs in Laharighat and Rohmoría areas.

The second chapter “*Riverbank Erosion-Induced IDPs and the Question of Social Justice and Entitlement*” is the theoretical basis that the researcher has taken up to explain the research concept. The chapter provides a theoretical landscape to analyse the problem of riverbank erosion in Assam, more particularly in the sample areas of the study located in Morigaon and Dibrugarh districts. The concept of social justice, IDPs and entitlements are the core theoretical pockets used in the chapter to interlink the theoretical structures and practical evidences associated with the issue of riverbank erosion-induced IDPs. Again, the resettlement and rehabilitation policies carried out by the State to address the problems of the IDPs are also theoretically explained in the chapter. The chapter has initiated a discussion on the issue of riverbank erosion and the question of social justice and entitlements associated with the IDPs caused by the process of erosion. The researcher strongly admits that riverbank erosion is a serious threat to the geographical potency of Assam. According to the Assam Water Resources Department, nearly 7% of the land in the State’s 17 riverine districts has been lost due to river bank erosion in the last 50 years. Therefore, how the State should react regarding the issue of land of the affected is theoretically analysed in this chapter. Empirically, loss of land is not only a threat to geography of the area, but it will also directly cause non-traditional security threats to the persons who lost all kinds of avenues of their lives and livelihood due to their forceful eviction from land. In reality, the issue of riverbank erosion has a large socio-economic impact upon the affected. Their citizenship rights and community identity also were in peril, because in the words of M. Cernea, loss

of land brings them to the situations of impoverishment risks (Point 1.2 & 1.9). The chapter also unveils a comprehensive theoretical bridge to understand the problems of the riverbank erosion-induced IDPs and the State-citizenship relationship to realize the role of the State towards the vulnerable and how they are living in reality. Vulnerability, impoverishment risks, social justice, socio-economic conditions of the IDPs and State's response, all are theoretically accommodated in the chapter to build up the theoretical framework of the research work. It, by and large, helped the researcher to bring forth the further empirical investigation to realize the research formulations considering the present scenario of the sample villages in Laharighat and Rohmorria.

“Study of the Universe: A Spatial and Socio-Economic Analysis” is the third chapter of the research work. It explains the universe of the study, i.e. Assam in general and Morigaon and Dibrugarh districts in particular. Here explanations are made about the sample areas of the study specially *Sialmari* and *Pambori gaon* in Laharighat and *Kasuwani* and *Maijan gaon* in Rohmorria area. A thorough discussion on the location of the said universe, its physiographic details, drainage systems, geological and seismological characters are incorporated in the chapter to understand the hidden reasons of the occurrence of large scale riverbank erosion in the area. The chapter has incorporated the study of the soil quality and climate of the area because these two are the determinants of composing the structure of land of a particular area and appears as another important factor behind causing massive riverbank erosion. Again, for primary verification of the theoretical formulations, the researcher had undergone a detailed study about the spatial and socio-economic analysis of the universe. By considering the census records and information obtained from first

hand experience, the chapter has included the demographic and socio-economic profile of the study area. It is noteworthy that, the physiographic locations, geological formulations, climate and soil quality of Assam as a whole is fragile, humid and erodible. Here, the undercurrent of river water of the Brahmaputra, its continuous sediment transportation, heavy siltation and frequent changes in its course also stand as ameliorative force to evict more land. Hence, through this chapter, the researcher has enumerated the technical and scientific reasons associated with the problem of riverbank erosion in Assam, specially in the south bank of the Brahmaputra valley. By discussing the demographic profile of the universe, the chapter has identified the target population, (i.e.) who are the worst affected by the process of riverbank erosion. In Laharighat, the sample group is composed mostly of the Muslims and a very small number of tribal (*Kachari* and *Tiwa*) population. Again, *Matak*, *Chutia*, *Ahom* and *Adivashi* (Tea Garden Workers) are the vulnerable groups of Rohmoriam. So far as their socio-economic conditions are concerned, the IDPs of Laharighat are economically and educationally backward than the case of Rohmoriam. In Rohmoriam, because of availability of land the affected people either obtained land provided by the State or settled in the grazing land with permission from the local administration. But in Laharighat, people have been residing in embankments and roadsides for the last 20-30 years without having any resettlement and rehabilitation facilities. Thus, the socio-economic and community structure of the affected persons in both the pockets are comparatively analysed in the chapter to realize the role of the State in mitigating the plight of the IDPs.

The fourth chapter entitled “*In the Aftermath of Riverbank Erosion: An Observation of Morigaon and Dibrugarh Districts of Assam*” deals with understanding the extent

and impact of riverbank erosion in Assam in general and the Morigaon and Dibrugarh districts in particular. The chapter includes the figures of total land eroded, numbers of affected families and population in the sample villages. Here, the researcher has shared the fact that Assam lost an annual average land of 8000 hectare (Point 4.1). The Water Resources Department of the Government of Assam declares that the width of the river Brahmaputra has increased up to 15.00 km at some places due to bank erosion. While talking about the case of Morigaon, the district lost 13728.94 hectares of land due to riverbank erosion between the years 1971 to 2009. A total of 16950 families with 47000 persons were rendered homeless during 1969-2001. Again, in Dibrugarh district, during the years 1967 – 2008, the total land lost was 3616.42 hectare and since 1970 till January, 2020, the district lost a total land of 6,686. 88 hectare (49951B-02K-09 Ls) and affected a total of 922 families (RTI report, January 2020, D. C. Office, Dibrugarh).

During 1999-2009, Dibrugarh district lost 3.75 hectares of land and 76 families became homeless due to riverbank erosion. For field level investigation, the researcher visited two villages from Laharighat circle in Morigaon district and two villages from Chabua Circle in Dibrugarh district. It has fulfilled the comparative analytical prospects in terms of loss of land, family affected and their overall conditions of deprivation. The sample villages, *Sialmari* and *Pambori* in Laharighat Circle lost a total of 436.52 hectares of land due to riverbank erosion and it ejected 1591 persons from their homestead and cultivable land. Regarding the affect of riverbank erosion on the two sample villages namely *Kasuwani* and *Maijan* in Rohmoriam area, the Circle of at Chabua could not provide us the exact figures of land eroded and population affected. But as per the sources of the Assam State

Water Resources Department, Rohmoría area lost a total of 8435 hectares of land till 2008. Again, the chapter has given an actual picture of riverbank erosion, its affect on the land-use pattern of the study area and more particularly of the socio-economic impact of riverbank erosion in the sample villages both at their individual level and at community level.

The fifth chapter “*Policy Measures and Realities*” is a comparative chapter that includes a detailed idea about of the affected people, their movement to draw attention from the authority and to check erosion and the State’s response in terms of resettlement and rehabilitation schemes to mitigate the problem of the IDPs as well as to combat erosion, more specifically in the Morigaon and Dibrugarh districts. The chapter minutely observes the available policy measures and practical benefits obtained by the affected persons in the sample areas. During the field study, the researcher has observed that the survival mechanisms of the affected groups are unique in both the scenes. In Morigaon, people restored their shelter and livelihood with a little or with almost no material support from the authority, except that the local administration allowed them to settle temporarily in the government land. Accordingly, 48 families of *Sialmari* are now residing very thickly in the government land (i.e. embankment) in *Kathoni* since the year 1990; 56 families of *Pambori* moved to the government land of *Pachim Chenimari* L.P. School in 2006. But, these newly settled groups hardly obtain any government assistance, in money and material, for their resettlement and rehabilitation. Even, the present habitat is also too minimal for them (mostly less than 1 *katha*/per family) to engage in any cultivation and earn their bread. Even they do not have *pattas* against their present habitat. Comparatively, in Dibrugarh, the affected people are in far better conditions

than those in the Morigaon district. The 42 families of *Garpara* village were settled in *Maijan village* in the year 2000, under the initiatives of the Asom Gana Parishad (AGP) government of that time. All the 42 families got 1 *Bigha patta* land, worth Rs. 18,000/- under the IAY housing scheme and Rs. 2500/- as one time relief from the authority. During the field study in January 2020, it was found that there were 40 families instead of previous 42 families and members of those 2 families were died as informed by the respondents. Besides, the researcher had obtained information from the Circle Office, Chabua that 28 families of *Kasuwani* in *Udalguri gaon* were settled under the scheme of Minimum Need Programme and each family had obtained 1 *Bigha patta* land. Regarding these people, the *Gaon Burah* of *Kasuwani* admitted that out of the 28 families only 15 families were from *Kasuwani* and others were from some other villages. The researcher had also met and talked to another 33 families of *Kasuwani gaon*, who were inhabited in *Kasuwani Pathar gaon* and settled in government grazing lands as per the permission of the local administration. Each of them was acquiring 1-2 to 3-4 *bighas* of land. Though they were deprived of other government facilities, they were managing their livelihood from a little area of cultivation, mostly small scale tea gardening or in extreme cases they engaged themselves in factory, construction works or in daily waged manual works.

When the researcher examined the standards of living of IDPs in both the cases, it was found that the affected people of Morigaon were living in jhopris, and the IDPs in Dibrugarh had *pucca* houses (Table 4.12), symbolizing the better standards of living. Peoples' awareness of sanitation and drinking water facilities were satisfactory in Dibrugarh, but it was hardly present in Morigaon. So far as the field information that the researcher collected, there were 2 tube wells against 30 families

of previous *Sialmari gaon* residing at *Kathoni gaon*. The number was same with the people of *Pachim Chenimari* too, who previously belonged to *Pambori gaon*. Again, in January, 2020, there were 11 tube wells shared by 48 families in *Kathoni* and 14 tube wells shared by the 56 families of *Pambori*. In the name of government facilities they all were the beneficiaries of the public distribution system under BPL category. In Rohmorria, the researcher found 9 numbers of government or semi government employee out of 107 families. Among the sample cases of Laharighat, the number of service holders amongst the affected families of *Pambori* was 6 and it was absent regarding the affected families of *Sialmari*. The ratio of government IAY beneficiaries amongst the sample cases was 17: 104 in Morigaon district (16%) and 56:107 (52%) in Dibrugarh district (Field study report, 2020). It is noteworthy to mention that all the sample families of Maijan gaon received Rs. 18,000/-each against construction of their home at the time of resettlement in the year 2000. Accordingly, the transportation facilities in both of our sample cases were almost similar as all the sample villages were situated near the river side and located in very remote areas. Thus, considering all the matters discussed above, the researcher comes to the conclusion that the socio-economic status of the riverbank erosion affected people of Laharighat are comparatively backward than those of Rohmorria.

The chapter also provides a long discussion on the available international and national policy measures to mitigate the plight of the affected persons. The assessment on the efficacy of the schemes adopted by the State in regards to the sample population is a major point of discussion in this chapter. Despite having broad policy measures to offer resettlement, rehabilitation and support in the socio-community structure for the IDPs at the international arena published by the United

Nations Handbook for Applying the Guiding Principles on Internal Displacement, in India we have the National Rehabilitation and Resettlement Policy, 2007, that specially speaks about the protection of the development project related IDPs. But, the national policy is silent about the riverbank erosion-induced IDPs. Again, considering the ground level information about the sample cases, we have noticed that the policy initiatives are also vary as per the availability of resources of the local administration to mitigate the problems of the riverbank erosion-induced IDPs. Our sample villages in Laharighat and Rohmoria are therefore examples of not getting equal treatment from the State against their sufferings. The IDPs from the sample villages, *Sialmari* and *Pambori* are in vulnerable conditions as most of the affected families faced erosion more than once in their life span. Yet they do not have any concrete housing facilities from the authority- they are simply temporarily settled in government land without *pattas*. In contrast, the affected families in *Kasuwani* and *Maijan* received not less than 1 *Bigha* of land each. This disparity occurs mainly because of the unavailability of free land in the concerned Circle or in the nearby areas and because of absence of strong peoples' movement against the unresponsive attitude of the authority.

Besides looking at the issue of social justice of the riverbank erosion-induced IDPs at the individual level, the chapter considers the community's sufferings too. While the affected people experienced tremendous pressure at the individual level, they had lost their community support as they were scattered because of their variations as well as classifications regarding resettlement given by the concerned authority for their own physical arrangements. This not only reflects the individual security threats but actually put hindrances to the welfare of the community at the collective

level. Again, the chapter comprehends the issue of politics of erosion in a way to describe the political connotation related to the issue. It tells about the political facts associated with the issue as how the political parties as well as the concerned authority (i.e.) the State deal with the problem. It tells about the reality of the political game too. All these in the long run describe the extent as well as impact of riverbank erosion in our study area and the issue of survival, resettlement and rehabilitation of the IDPs.

Thus, in the concluding part, it is important to mention that our whole study comprehends the relationship between the vulnerability of the riverbank erosion-induced IDPs and the concerned State's response in Assam by taking a case study of Laharighat and Rohmorja area. After analysing the conditions of IDPs of the sample area, the researcher therefore, compared their conditions in the context of Assam in general and provides a comprehensive idea about the lives and living of the affected population of both Laharighat and Chabua Circle by analysing their socio-economic as well as demographic settlement patterns in particular. It describes the fact that mostly the riparian people of the south bank of the river Brahmaputra have been adversely affected by the problem of riverbank erosion.

Again, the fundamentals of our study engage in looking at the issue of IDPs from the way that they constitute such a category of victims, who have no other alternative but to depend upon the State. But, the cruelty lies here is that most of the States are unwilling to recognize the internally displaced persons as that would directly affect their status before the entire world. Besides, though the United Nations Handbook for Applying the Guiding Principles on Internal Displacement exists, such conditions are actually far from the reach of these victims. In our study area,

specially in Morigaon, we have observed that the attention of the concerned authority towards these IDPs was insignificant. Though the concerned authority provided resettlement to most of the displaced persons in Dibrugarh, numbers of resettlement proposals are again awaiting sanction. Those who got temporary resettlement mostly in Laharighat are living under precarious conditions as regards to their livelihood. These are often ignored by the concerned authority. Besides resettlement and rehabilitation, the approach adopted by the State to check riverbank erosion is also inadequate. The concerned authority often indulges in the administration of porcupines, construction of embankments, bunds and stone spurs. But these steps fail to delimit the numbers of IDPs as they are growing day by day in our study area, mostly in Laharighat. Significantly, the problem of erosion has somewhat stopped in Rohmoriam area after the execution of geo-bags scheme in the year 2011. All these reveal a big question mark on the efficacy of the remedial measures adopted up by the State against riverbank erosion.

The number of riverbank erosion-induced displaced population is increasing day by day in the Laharighat area. Accordingly, it deserves utmost attention in the workings of the civil society groups. Considering the case of the *Laharighat Gora Khohoniya Protirodh Samity*, it is found that though they are constantly engaged in different activities to attract attention of the concerned authority, their role is far from satisfactory. Again, though a section of educated people of that area are actively involved in peoples' movement to combat erosion, yet they have failed to attract common people. Practically, riverbank erosion affects mostly the downtrodden. On the other hand, the population having educational and social resources can accordingly arrange avenues for their sustenance. Therefore, they can foresight

before their displacement instead of depending on the relief operations executed by the concerned authority. The people on the bottom line have to face the cruelty of displacement directly and usually have no alternative than looking at the schemes adopted by the concerned authority towards addressing their sufferings. Therefore, they are restricted to settle in government allotted land and have to wait years together to get attention from the administration. The problem of insecurity regarding their right to life remains all the time. Again they have often faced the problem of adjustment with the local population in the new area. Besides, restoration of livelihood appears to be a serious problem for them. In the sample area of Laharighat, the respondents informed the researcher that the economically and educationally viable families were comparatively in safer zone than the marginalized because the aforesaid families never waited for the settlement provided by the State and undertook precautions earlier. But the poor had to face the hurdles and insecurity regarding their sustenance in the new area as they were dependent on agriculture since long past and now have to look for alternative occupations like daily wage earners, riskshaw puller, thela puller and construction labours. Hence, our research highlights a picture of deprivation faced by the sample families of Laharighat area. But in contrast to it, the sample population of Rohmoria is quite stable. They have been engaged in mass struggle since the last part of 1970's and have become successful in gaining attention from the authorities. In addition to these, out of 88 homeless families of Rohmoria, 65% sample families obtained 1 *bighas* of *patta* land each for their resettlement. Another 37.5% population is occupying government grazing lands without *pattas*. It is noteworthy here that 22% of respondents in Rohmoria are not homeless, but they had lost their agricultural

land. Besides, in Laharighat, 100% of our respondents are homeless as well as landless and they are residing in embankments, roadsides and occupying lands of government schools.

Thus, through the above discussion, the researcher provides a summary of the total discussions provided in the previous five chapters of this research work. At this juncture, now the researcher is going to offer the major findings of the research work in a more precise form. Here, the study incorporates the major findings of the study as per the set objectives.

Section-III

6.3 Major Findings of the Study

In this part of discussion, the researcher incorporates the major findings according to the main objectives of the study.

Objective -1

- To study and understand the extent and magnitude of the problem of riverbank erosion-induced IDPs in Assam in general and the selected two districts in particular in terms of land eroded.

Major Findings

- The Water Resources Department, Government of Assam, released the information that for the last six decades, more than 4.27 lakh hectares of land were already eroded away by the river Brahmaputra and its tributaries in Assam.

- Assam Human Development Report, 2014, released the data that the estimated average annual erosion rate has been 8000 hectares which have affected lakhs of families spread over 2,534 villages in the State of Assam.
- From the 1970s till January 2020, the Morigaon district lost a total of 110 villages due to riverbank erosion, out of which 57 villages from the Bhuragaon, 38 villages from the Laharighat and 15 villages were from the Mayong Circle. The river Brahmaputra eroded more than 17,838.27 hectares of land and affected 17,039 families in the district. The worst affected Revenue Circles are Laharighat, Bhuragaon and Mayong.
- From 1970 till January 2020, the Dibrugarh district lost a total of 6,686. 88 hectares of land and affected a total of 922 families. The worst affected Revenue Circle is the Chabua Revenue Circle. The Chabua Circle alone lost 5370 hectares of land with 580 families due to riverbank erosion.
- In the Laharighat Circle, from the years 1982 to 2020, the total amount of land eroded was 5833.16 hectare and it affected a total of 6543 households and more than 62,170 people.
- The two Mouzas of the Laharighat Circle, namely Laharighat and Moirabari were affected by the process of riverbank erosion. Total 29 villages were fully eroded and 09 were partly affected by the river Brahmaputra.
- There has been serious erosion each year in the Dibrugarh district and, particularly, Rohmoría is the worst affected. At present about 90 hectares of land per year has been eroded in the Dibrugarh district.

- Till 2010, the Chabua Circle had lost 6297.33 hectares of land and rendered 769 families homeless. Rohmoriam and Bogdung Mouza under Chabua Circle lost 16 and 3 villages respectively.
- Till 2008, Rohmoriam had lost 8435 hectares of land. In a stretch of a bank line length of 9 km. riverbank erosion rendered 768 families homeless in the area. The rate of erosion is 4.72 m/year.

Objective-2

- To examine the multi-dimensional consequences of riverbank erosion on the lives and livelihood of the people of the sample villages of Morigaon and Dibrugarh district.

Major Findings

- Our sample village *Sialmari gaon* had been fully eroded in 1990; *Pambori gaon* was fully eroded between the years 2006 to 2017.
- The Circle Office recorded that the river Brahmaputra eroded 324.35 hectares of land of 136 families of *Sialmari* and 112.17 hectares of land of 129 families of *Pambori* village. The number of population affected in *Sialmari* and *Pambori* were 871 and 720 respectively.
- In January, 2020, the researcher found 48 families with 297 persons in *Kathoni*. They originally belonged to *Sialmari gaon* and they had lost a total amount of 77.18 hectares of land. Again, the researcher found 56 families with 311 persons of *Pambori gaon* living in *Pachim Chenimari gaon* and they had lost a total of 91.6 hectares of land.

- In contrast to Laharighat, in Rohmoría, the researcher found during the field study, 42 displaced families of *Garpara* with 173 persons in *Maijan gaon*. They had lost a total of 100.27 hectares of land due to riverbank erosion. Again, from *Kasuwani gaon*, 33 affected homeless families were found in *Kasuwani Pathar gaon* with a total of 155 persons. They lost 52.8 hectares of land. Another 15 families of *Kasuwani gaon* were residing in *Udalguri gaon* with 71 persons. They had lost a total of 44.8 hectares of land. Besides, in the present *Kasuwani gaon*, the researcher found 19 families. They had their homestead land but had lost a total of 8 hectares of agricultural land.
- Both Laharighat and Rohmoría have been facing the curse of erosion for more than two decades.
- Majority of the respondents faced erosion and displacement 3 to 4 times in their life-span in Laharighat. But in case of Rohmoría, the respondents faced erosion once in their life span.
- The present study reveals that the average total amount of land erosion in our two sample villages of Laharighat is 1.6 hectare/per family, while the rate is 1.9 hectare/per family in Rohmoría.
- While comparing the impact of riverbank erosion in both the Circles, we have found that the total population affected in Laharighat is much higher (8.5 times more) than Rohmoría.
- Respondents of both Laharighat and Rohmoría areas are less satisfied with their post- displaced situations in comparison to their pre-displaced situations in terms of their socio-economic conditions, livelihood prospects,

community benefits and standards of living. When the factors determining the socio-economic standard of living are compared, it comes to our observation that the respondents of Laharighat are in more impoverished situations than those living in Rohmoriam.

- While comparing both the cases in terms of educational facility, health care facilities, housing pattern, drinking water facilities and benefits from some of the government schemes, the researcher has found that in Laharighat, the IDPs are far below the basic standard of living than Rohmoriam. Therefore, it is observed that the people of Laharighat are more vulnerable to impoverishment risks than the people of Rohmoriam.
- Considering their socio-economic life in Laharighat, the respondents are now in the situation of impoverishment risks as they are homeless, landless and jobless. The social and community support system of the affected families are damaged. Their co-operative and natural village mechanisms are also disturbed. On the other hand, the lives and living conditions of the people of Rohmoriam are quite satisfactory.

Objective-3

- To study the resettlement and rehabilitation schemes taken up by the State to mitigate the problems of the affected people in both the districts.

Major Findings

- In Rohmoriam, homeless families mostly (Maijan 100% and Udalguri 100%) have obtained 1 *bigha* of *patta* land by the authority immediately after displacement, except the respondents of *Kasuwani Pather* who are

occupying grazing land up to 3 to 4 *bighas* of land without *pattas*. But in *Kathoni* and *Pachim Chenimari*, the IDPs of Laharighat, have not obtained benefits of any land for their resettlement and rehabilitation. Rather, they are residing in government land, embankment and roadside, and do not have *pattas* for that.

- In Rohmoria, most of those homeless families have obtained a total of Rs. 1600 to 2500/-as one time relief immediately after displacement.
- All the sample families of *Maijan gaon* have obtained Rs. 18000/-each against Indira Awaas Yojana (IAY) scheme to construct their houses in the year 2000.
- The deprived group of the two broad areas, Laharighat and Rohmoria, are not receiving similar treatment from the State.
- But in Laharighat area, despite being under heavy impoverishment risks, the riverbank erosion-induced IDPs are unable to get the benefits of IAY schemes for which they must have patta land. Out of the respondent families 16% have obtained IAY facilities. But in Rohmoria 52% families have obtained IAY benefits.

Objective-4

- To study peoples' movement, available policy measures and compensatory mechanisms taken up by the State to check the problem of riverbank erosion and associated IDPs in both the sample areas and analyse the State-citizen relationship within the framework of social justice and entitlement.

Major Findings

- To prevent the problem of riverbank erosion, the State usually undertakes a number of preventive measures such as strengthening of embankments, spurs, dykes, execution of porcupines, arrangement of geo-bags to protect the dykes from the devastating current of the river.
- In the case of Rohmoria, people carried on a long as well as popular struggle from 1979 till 2011. But such active and continuous peoples' movement is absent in Laharighat area. Again, the steps that have been taken up by the State to check the problem of erosion also seem to be less effective in Laharighat. In Rohmoria, geo-bags scheme was executed in a length of 2.6 km area in 2011 and resultantly there was almost end to riverbank erosion. In Laharighat, authorities had been executing porcupines, sand filled bags, spurs and geo-bags in a small area too. But such measures failed to address the problem of erosion. As per the opinion of the respondents, government initiatives lack proper intention to permanently solve the issue; rather it tries to keep the issue alive in Laharighat.
- Due to poor economic conditions, lack of education and awareness, and the completely destructed social and community structure in Laharighat area, the peoples' voice is somewhat stifled. During the field observation, the researcher found that the people of Rohmoria were economically sound and were aware of their community structure and resources in comparison to Laharighat.

- Again, Rohmoriam is facing erosion at a very limited area, that is, only on the 9 km. stretch of the river Brahmaputra. But in Laharighat the whole Circle is facing the problem of erosion around a span of 30-35 km.
- Our sample villages in Laharighat and Rohmoriam are examples of receiving unequal treatment from the State against their sufferings. According to the field study reports, this disparity occurs because of the unavailability of free land in the concerned Circle or in the nearby areas and because of absence of strong peoples' movement against unresponsiveness of the authority.

Comparative Analysis and Major Findings in terms of the Sample villages:

Spatial aspect

- The riparian tracts of Brahmaputra valley are mostly composed of the new alluvial type soil and it is prone to more flood and subsequent riverbank erosion. Again, when we look at the vulnerable reaches of erosion in Assam, we have found the south bank of the river Brahmaputra more vulnerable to bank erosion than the north bank. Both of our sample areas, i.e. Laharighat and Rohmoriam, are situated on the bank of the river Brahmaputra specially on the south bank. Accordingly, both the sample areas are severely affected by the erosion hazards posed by the river Brahmaputra.

Demographic aspect

- In Laharighat, the sample population is composed of the following categories of people: *Koch-Rajbongshi, Kaibarta, Kumar* and majority is the *Muslims*.

- In Rohmoriam, the sample population is composed of the following categories of people: *Ahom, Chutia, Matak, Moran and Adivashi (Tea Garden workers)* people.

Socio-economic conditions of living

- Out of our respondents, 98% respondents are under 1 Lakh annual income category in Laharighat, while 86% respondents are below 1 Lakh income category in Rohmoriam.
- 86% respondents of Laharighat are consuming annually below Rs. 50,000/- and 22% respondents are consuming annually below Rs.50,000/-in Rohmoriam, other 78% families are consuming above Rs. 50,000/-annually.
- Out of our sample families, the livelihood of 74% families are dependent on daily wage earning in Laharighat and in Rohmoriam it is 51%.
- In Laharighat 21% of respondent families having youth and male members moved to other places in search of livelihood, and the youth movement to other places in search of livelihood is not so remarkable(7%) in Rohmoriam.
- Out of our respondents, 46% of respondents are illiterate in Laharighat, while 28% illiterate in Rohmoriam.
- 96% of respondents are dwelling in *Kacha* houses in Laharighat, whereas 53% live in *Kacha* houses in Rohmoriam.
- 76% of respondents are using *Kacha* toilets in Laharighat. On the other hand, only 2% of respondents are using *Kacha* toilets in Rohmoriam. Other 98% respondents have *Pucca* and *Semi-Pucca* toilet facilities in Rohmoriam.

- 100% of respondents directly drink water from tube wells in Laharighat. They are not at all aware of the idea of water filtration. But in Rohmoriam, though all the respondents are consuming water from tube-wells, they use filters either homemade or from shops and take drinking water from the filter. They are quite familiar with filtration of water.

In this way the present study shows that the problem of riverbank erosion is a severe and genuine problem for the State of Assam. The adverse affects of erosion is evident from the sufferings and loss of the affected people. The affects of riverbank erosion are not only direct in terms of loss of livelihood and income but also indirect in terms of migration and other related issues. From the findings of the present study, we have found that there is no specific policy for rehabilitation and resettlement of riverbank erosion-induced IDPs. Again, the existing policies have not at all addressed the sufferings of the IDPs from the lenses of social justice and entitlement. The State seems to take initiatives only when it is backed by strong peoples' movement. Therefore, while formulating the specific policies for the riverbank erosion-induced IDPs, the concerned authority should keep in mind the execution of the principle of social justice and entitlement. Thus, in order to address the problem of riverbank erosion, the subsequent IDPs and to restore their dignified living, the researcher comes to a final conclusion with some probable suggestions which are given below.

6.4 Major Suggestions of the Study

Thus, from the conclusion of the present study on "*Riverbank Erosion-Induced Internally Displaced Persons: A Comparative Study of Morigaon and Dibrugarh Districts in Assam*" the following suggestions may be forwarded.

- The national as well as the local authority must advance appropriate policy measures to tackle the problems of the riverbank erosion- induced IDPs in Assam.
- The researcher strongly urges upon the concerned authority to materialize the specific policies to mitigate the sufferings of this specific category of IDPs.
- The community participation and experiences should also be highly counted while undertaking policies to mitigate their plight.
- By realizing the ground realities and actual hurdles of the IDPs, the authorities must draw area specific policies for the IDPs of more vulnerable reaches.
- The riverbank erosion-induced IDPs have equal citizenship rights irrespective of their limitations. Social justice must be ensured for all the segments of affected people at any cost.
- An effective road map for long term solutions of riverbank erosion caused by the river Brahmaputra is to be developed.
- The Government of India should constitute a proper planning authority to strategically study and offer solutions to the problem of riverbank erosion, especially for Assam.
- A proper and uniform database for the whole State of Assam is required regarding the restoration of exact data on riverbank erosion in terms of land eroded, population affected and loss of property.

Thus, the conclusion arrives at the present study in the context of riverbank erosion-induced IDPs of Morigaon and Dibrugarh Districts in Assam may be generalized in riverbank erosion of the other areas of Assam though there may be limitations of the present study for such claim. The present study again has future prospects. The study offers primary and practical observations of the four villages from two of the highly erosion prone sites of Assam and opens up new doors to comprehensively analyse the problem of riverbank erosion along with its limitations. The study also highlights the need of examining the issue with primary information gathered from the field studies. It would help the other researchers to realize the extent of the problem and would help them to deal with the issue with empathy. Therefore, further study in this area covering a wide universe based on a definite approach is required to understand the extent of riverbank erosion in our State as well as regional and national level which is left to future prospective researchers and social scientists.

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Appendix

Interview Schedule

I “Hemasri Devi”, a research scholar of KKHSOU, Guwahati, is working on the theme “Riverbank Erosion-Induced Internally Displaced Persons: A Comparative Study of Morigaon and Dibrugarh Districts in Assam” for my doctoral research. All views collected through this schedule are related with the aim of collecting information on the said theme. All data gathered from this interview schedule are to be used in academic purpose of my doctoral research only.

Background information of the Respondent:

1. Name:
2. Mention the numbers of your family members. i) Nos. of Male Member
ii) Nos. of Female Member
3. State the name of your Country.
4. State the name of your locality: Village/Town:.....
5. What is your age?
 1. Birth- to 14 years (child) 2. 15-30 years (youth) 3. 30-60 (Adult) 4. 60 plus (old)
6. State your religion.
 1. Hinduism 2. Islam 3. Christianity 4. Buddhism 5. No Religion 6. Others (Specify)
7. State your Caste status.
 - a. General b. SC c. ST d. OBC/MOBC
8. State your gender.
 1. Male 2. Female 3. Others
9. Marital Status :
 - 1.Married 2. Unmarried 3. Widow 4. Divorced 5. Others (specify)

10. Educational Status :

1. Non-literate 2. Below-Primary 3. Primary pass/Middle fail 4. Middle pass/
H.S.L.C. failed 5. H.S.L.C. Passed/ H.S failed 6. H.S pass/Degree fail. 7.
Graduate 8. Post-Graduate/ Professional and Technical Diploma 9. N.A.

11. We will give you a list of facilities need for desired living today.

You should specify, if those are attained by you/your family before or after
facing the problem of riverbank erosion

	Yes (before/after)	No (before/after)
1. Car/ van/ large vehicle	1	0
2. Scooter/ Motor Byke	1	0
3. Phone	1	0
4. TV	1	0
5. Washing Machine	1	0
6. Refrigerator	1	0
7. Electric Fan	1	0
8. Radio	1	0
9. Bye-Cycle	1	0
10. LPG	1	0

12. Pattern of your House :

1. Hut/Jhuggi/ Jhopri 2. Kacha 3. Semi-Kacha 4. Semi- Pucca 4. Kacha-
Pucca (Mixed) 5. Pucca 6. Flat 7. Others (Specify)

13. Earning Members: 1. Male 2. Female (Please specify)

14. Total household income (Annual):

15. Questions about attaining benefits from Government Schemes:

Name of the Schemes	Are you heard about these schemes— Yes/No	If, yes, Are you a beneficiary of these schemes— Yes/No	If Yes, are you fully satisfy with the works of the scheme	If Yes, are you somewhat satisfy with the works of the scheme	If No, are you fully dissatisfy with the works of the scheme	If Yes/No-are you somewhat dissatisfy with the works of the scheme
Indira Awaas Yojana (IAY) and Pradhan Mantri Gramin Awaas Yojana (PMGAY)						
Pradhan Mantri Ujjawala Yojana						
Rajiv Gandhi Gramin Vidyutikaran Yojana						
Atal Amrit Abhijan						
Total Sanitation Campaign						
Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)						
BPL Card and Public Distribution system						
APL Card & other facilities of Public Distribution System						
Majoni, Mamoni, Janani Surakhya Yojana, Maram & others related to baby born and pregnant women						
New old Age Pension Scheme (NOAP)						
Total Immunization Campaign, For child and Pregnant women						
Pulse Polio Abhijan						
Sarva Sikshya Abhajan (SSA)						

Questions about the impact of riverbank erosion on land, living and livelihood of the respondent.

16. State the amount of land of you/your family had lost due to riverbank erosion.
17. How much land you have now? Have you *pattas* / or other kind of recognition of your present land or resided in others/institutions/or Government land?
18. What was your previous source of income?
19. What is your present source of income? Is it now deteriorated than earlier or of similar kind or improved?
20. In comparison to your previous livelihood source, is the present work is more deteriorated, hazardous, unhealthy or far better in terms of health consequences? Yes or No, (Please give your comments)
21. Compare to your previous and present housing pattern, which is more comfortable, hygienic and perfect? Give your comments. Are you satisfied with your present state?
22. In the question of family disorganization, when the male member resides outside home for the sake of livelihood, how much time he gives on conjugal life? 2 months, 1 month, more than that, less than that? Please specify.
23. Is it a single parent family? What are the problems, the family faces due to having its single parenting nature?
24. Are the Children's facing problems due to bifurcated lives in education, health, hygiene, comfort, nutrition and in other aspects?
25. Regarding the resettlement and rehabilitation facilities, are you attained
 - (a) Land instead of land that was eroded / issue of resettlement as well as rehabilitation, how it was addressed by the authority (in terms of land, money, other aspects). Please specify.
 - (b) Facilities regarding Shelter-given by Government-IAY & others. Are you a beneficiary? Are you satisfied with the scheme?

- (c) Are you attained benefits from the Rajiv Gandhi Gramin Vidyutikaran Yojana, Rajib Gandhi Computer literacy programme etc.?
 - (d) Regarding BPL cards/ other facilities of DRDA schemes, compare your present as well as previous status. Discard if not applicable.
26. Is there three generations in your family? More or less than that, Please specify.
27. Comparison of Schools/their standards/infrastructure schools under Sarva Siksha Abhijan (SSA) /Secondary Board of Education, Assam (SEBA). Compare your experience before and after erosion.

PHOTOGRAPHS

A Respondent Family of *Kasuwani gaon* (Rohmorja)



Source: Collected During the field Study, 2018

Geo-bags in 2020, Rohmorja



Source: Field Study, 2020

Showing Geo-bags by R. Gogoi, Activists of Rohmorria



Source: Field Study, 2020

Executed porcupines & Iron pipes in Rohmorria in 2011



Source: Collected from R. Gogoi, Field Study, 2020

Embankment in *Kathoni gaon* (Laharighat)



Source: Field Study, 2020

Porcupines in *Kathoni gaon* (Laharighat)



Source: Field Study, 2020

Community Hall (under construction), *Kathoni gaon* (Laharighat)



Source; Field Study, 2020

People living in Embankment in *Kathoni gaon* (Laharighat)



Source: Field study report, 2020