

**RIVER BANK EROSION, DISPLACEMENT AND  
SUSTAINABILITY: A SOCIOLOGICAL STUDY OF PEOPLE  
AFFECTED BY RIVER SHARDA**

**ABSTRACT**

**SUBMITTED TO THE  
BABASAHEB BHIMRAO AMBEDKAR UNIVERSITY, LUCKNOW**

**BABASAHEB  
BHIMRAO  
AMBEDKAR  
UNIVERSITY**



**FOR AWARD OF THE DEGREE OF  
DOCTOR OF PHILOSOPHY  
IN SOCIOLOGY**

**SUPERVISOR  
PROF. MANISH K. VERMA**

**SUBMITTED BY  
PAWAN KUMAR  
ENROLMENT NO. 1296/18**

**DEPARTMENT OF SOCIOLOGY  
SCHOOL OF AMBEDKAR STUDIES FOR SOCIAL SCIENCES  
BABASAHEB BHIMRAO AMBEDKAR UNIVERSITY  
(A CENTRAL UNIVERSITY)  
VIDYA VIHAR, RAEBARELI ROAD  
LUCKNOW, U.P., INDIA - 226025**

**2023**

## Abstract

---

The study focuses on assessing the impact of environmental change in the forms of riverbank erosion-induced forced displacement of environmentally ‘vulnerable’ communities in the Terai region of North India. Specifically, the research aims to critically map out and analyze the repercussions of this forced displacement from sociological perspectives. Two villages in the Lakhimpur Kheri district, Uttar Pradesh, India, namely Barua and Boojhwa, serve as the study’s universe. These villages, along with several others, experienced severe riverbank erosion in the late 1990s, compelling their inhabitants to relocate due to the environmental changes. The displaced population has since faced multifaceted challenges and undergone significant adaptations.

Forced displacement is a critical issue, especially in densely populated and economically disadvantaged communities that struggle to cope with environmental shocks. Existing studies on riverbank erosion primarily come from geographers, physical scientists, and economists, lacking a sociological perspective. This proposed study aims to bridge that gap by assessing the impact of riverbank erosion on homelessness, migration, identity crisis (social impact); loss of productive land, occupation, increased poverty (economic impact); and effects on health and education (other impacts). In context of the inadequacies of earlier studies, the forced displacement becomes critical in densely populated and economically vulnerable communities facing environmental upheaval. Most studies on riverbank erosion lack a sociological perspective. This study comprehensively evaluates the impact, including social, economic, and cultural aspects, investigating homelessness, migration, identity crisis, loss of land, occupation, poverty, and effects on health and education. By understanding these complexities, we aim to address challenges and foster holistic solutions for the well-being of affected communities.

### **Research Objectives**

In this background, the main objectives of the study would be as follows.

1. To comprehend the social structure and background of the people affected by river bank erosion.

2. To measure the socio-cultural condition of the affected people (before and after displacement).
3. To understand the impact of river bank erosion on economic and political structures of the society.
4. To ascertain the impact of riverbank erosion on environmental and sustainability aspects of the displaced people.
5. To evaluate the policies and programmes run by government and non-government organizations to tackle river bank erosion, resettlement and rehabilitation for these internally displaced people.

## **Hypothesis**

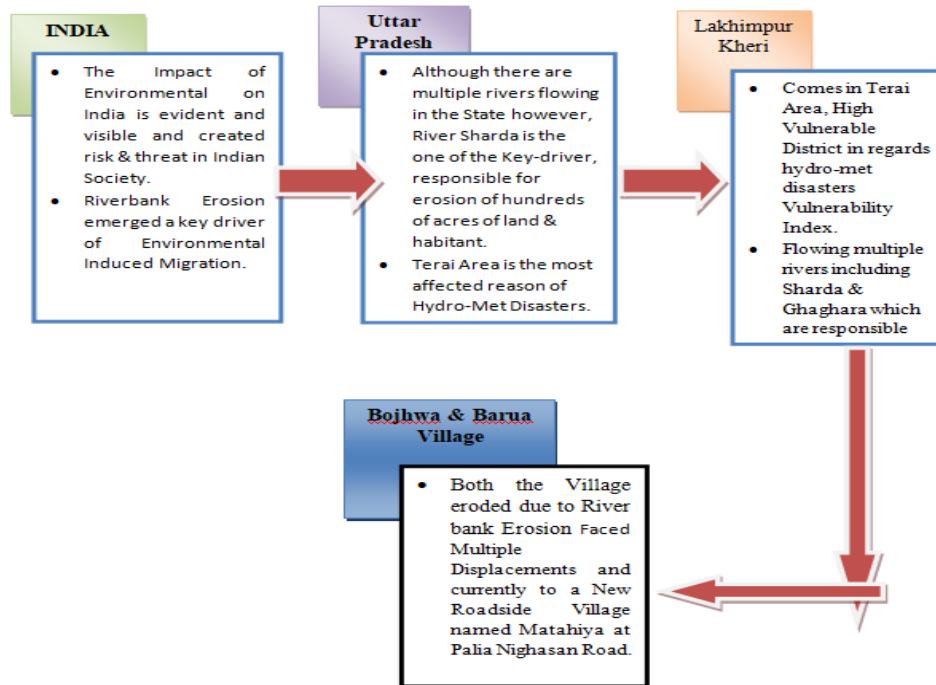
Based on the literature review discussed above, following research hypothesis are formulated, which has been tested in the study.

1. River bank erosion is responsible for the crumbling of the social structure of the displaced community.
2. River bank erosion affects the socio-cultural condition of the displaced community.
3. River bank erosion disturbs the economic and political structures of the community.
4. River bank erosion shakes the environmental and sustainability aspects of the displaced community.
5. Government schemes have a positive impact on addressing the problem of river bank erosion, resettlement, and rehabilitation of the displaced community.

## **Methodology of the Research**

The methodological section, the research explores the far-reaching impact of riverbank erosion on society, particularly forced displacement. Adopting an **Exploratory Research Design** and a comprehensive **mixed-methods approach' concurrent research design**, the study delves into the causes, effects, and coping mechanisms related to riverbank erosion-induced displacement. Extensive literature reviews, qualitative interviews, and on-the-ground **observations** are employed which provided a holistic view, capturing real-life experiences and perspectives of affected communities.

**Fig:1. The rational of the Study**



This research utilizes both **primary** and **secondary sources** for data collection. Primary data is gathered through observation, interviews, and focus group discussions in a village affected by riverbank erosion. **Structured interviews** captured firsthand accounts of the consequences. Additionally, **focus group discussions** explored challenges and coping mechanisms. Secondary sources include **international reports, research articles, journals, and reputable online sources**. Combining primary and secondary data, the study aims to provide a comprehensive understanding of riverbank erosion’s impact on displacement and its consequences for the affected community. This mixed-methods approach enhances credibility and informs evidence-based recommendations for vulnerable communities. The study used **purposive sampling**, a part of non-probability sampling, to select individuals at household level displaced by riverbank erosion in two villages. This approach allowed targeting those directly affected, gaining valuable insights into their experiences. This study employed diverse analysis tools for a comprehensive exploration of riverbank erosion’s impact on forced displacement. For quantitative data, **SPSS** software enabled rigorous statistical analysis, revealing trends and correlations. Qualitative data was analyzed using **Interpretation** and **Narration methods**,

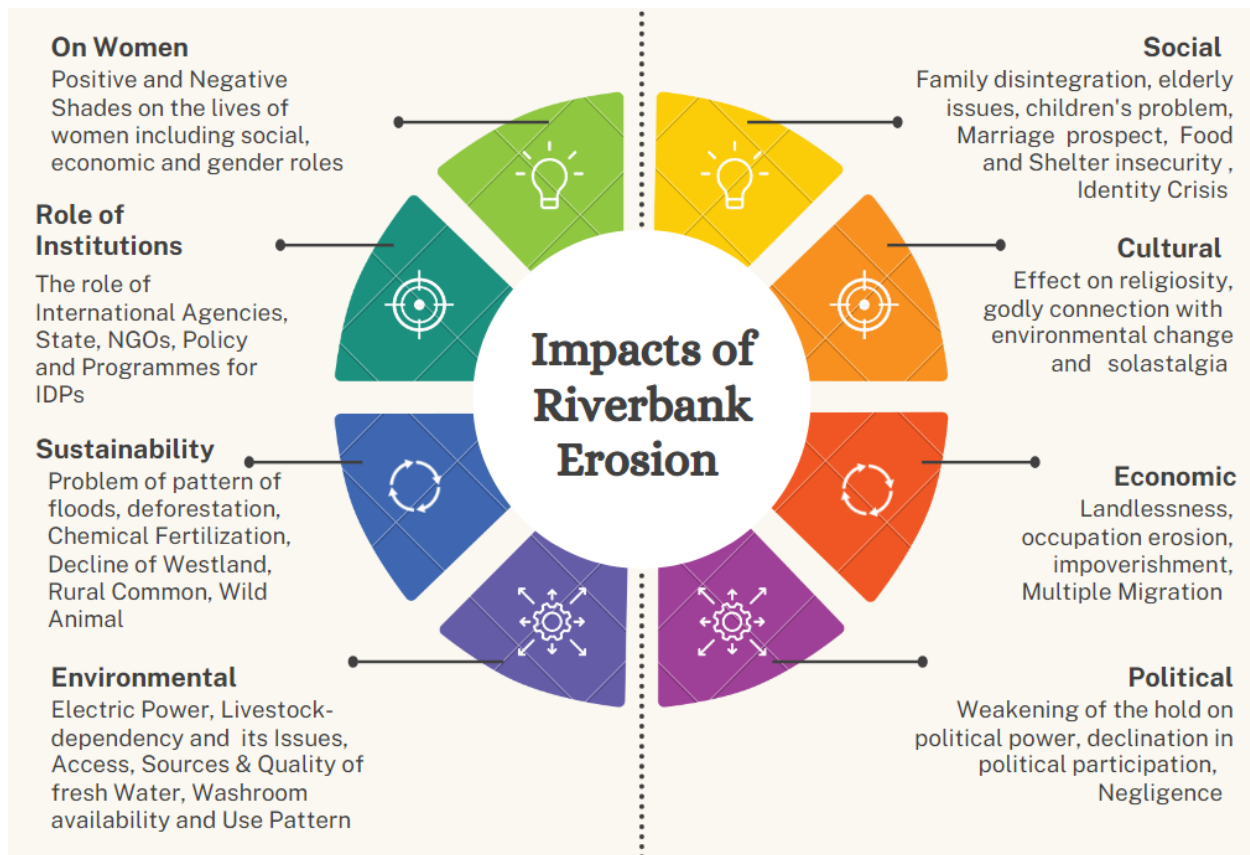
capturing insights from interviews, focus groups, and personal stories. Reports and observations further enriched the analysis. By integrating these approaches, the research aimed to present a holistic understanding of the challenges faced by affected communities and inform evidence-based strategies for addressing riverbank erosion's impact on society.

The research work comprises eight chapters in which the introductory chapter, titled **“Introduction and Statement of the Problem,”** is crucial as it sets the foundation for the research. It covers the study's objectives, rationale, problem outline, hypothesis, methodology, and a brief summary of the research scope. The review of literature identifies gaps in previous studies. Essentially, this first chapter guides the process using multiple approaches to accomplish the study's goals.

The **second chapter, “Situating the Context: Conceptual and Theoretical Framework,”** lays the fundamental groundwork for the entire study. It builds upon **conceptual and theoretical foundations**, extensively exploring human migration in various patterns, types, theories, and causes. A primary focus is on environmental migration, especially forced displacement due to riverbank erosion. The chapter deeply investigates the impact of environmental factors on human displacement and examines the geographical characteristics of the study universe. It introduces the guiding theoretical model, Drunkan's POET model. By assembling these crucial elements, the chapter sets the stage for a comprehensive exploration of environmental migration, particularly forced displacement from riverbank erosion. It sheds light on the intricate relationship between human populations and their environment, uncovering the challenges and implications of such migrations.

The **third chapter** of this study focuses on the **social structure of the displaced people** wherein the primary focus of this section is to understand the social structure and background of the displaced community. As the riverbank erosion occurred in the 1990s, around 90% of the respondents are adults who were immediately affected. Among the selected displaced people, approximately half belong to the Maurya (OBC) community, and more than 80% have limited education, with either illiteracy or elementary education.

**Fig:2. The Impact of Riverbank Erosion on different Spheres of Displaced Community**



After displacement, people's occupations changed from farming to agricultural work or daily wage labor. Many settled within five kilometers of their original region due to economic reasons, emotional ties, and hopes of restoration. Housing conditions improved with a shift from simple huts to semi-detached houses, thanks to government initiatives and male members' seasonal migration. Valuable assets like chairs, almirahs, coats, cell phones, and motorbikes increased, while basic necessities like tractors and bullock carts decreased in ownership. In addition, the study examined common infrastructure like Panchayat Bhawan and Creational Ground, and Panchayat Bhavan experienced significant changes in work prospects after displacement. Overall, the third chapter fulfills its objective, and the findings partially support the first hypothesis, which anticipated that riverbank erosion would affect the social structure of the displaced community. In order to evaluate the impact of riverbank erosion on the lives of

displaced people, this study is divided into various themes, which will be discussed in the next section.

### **Riverbank Erosion & its impact on Social- Cultural Structures of Displaced People**

This section focuses on the second objective of the research: assessing the societal and cultural condition of the affected individuals before and after displacement. The researchers examined various socio-cultural factors to gauge the extent of damages caused by riverbank erosion. The study found that displacement had adverse effects on family structures, leading to a decline in joint families and an increase in nuclear family systems. Elderly individuals faced challenges related to living space, health issues, and exposure to unhealthy environments after relocation, leading to difficult living conditions and poverty. Concerning children, education and schooling were affected due to a lack of nearby good schools or inability to pay fees. Unhealthy living conditions in roadside settlements contributed to health problems among the youth, with concerns about drug and alcohol abuse emerging in the post-displacement phase. However, positive changes were observed as well, including decreased caste conflicts and improved access to basic amenities like food and healthcare, addressing immediate needs.

The social status of the displaced people faced challenges, affecting their friendship and kinship groups, and marriage prospects changed substantially, resulting in labeling them as the inhabitants of an "eroded village." The host community, mainly comprising Sikh people, played a crucial role in providing daily wage work and aiding in adaptation. Though the displaced people longed to return to their original habitat, it was not feasible. However, they maintained a strong connectedness with their neighbors, particularly those displaced from their own village, showcasing network and connectivity. Religious practices were also influenced, with many believing that riverbank erosion had a "godly link." Initiatives like sacrificing animals and community prayer were used to prevent erosion, perceived to have a divine connection. The study's findings partially support the hypothesis that riverbank erosion impacts the socio-cultural condition of the displaced community.

### **Impact on Economic-political aspect of Displaced People**

The fifth delves on the third objective of the study: understanding the impact of riverbank erosion on the economic and political structures of society. The study found that riverbank

erosion led to significant changes in occupations, with farmers becoming agricultural workers and manual/daily wage workers. This shift adversely affected the newly formed occupational structures, as the ecosystem and livelihoods were disrupted. Due to the lack of resources in the new relocation areas, many respondents engaged in "multiple migrations" to meet essential economic needs, with rural to rural and rural to urban movements being common.

Riverbank erosion also had a substantial impact on land-related matters, resulting in reduced landholding size and diminished land quality and productivity. This erosion significantly affected access to agricultural assets. The chapter provides insights into how riverbank erosion affects economic aspects and livelihoods of the displaced population.

The forced displacement caused by riverbank erosion leads to significant impoverishment among the affected population. About 89% of the displaced individuals fall into a low-income category, facing challenges in affording shelter and food due to the loss of land. A vicious cycle of loans emerges as they struggle to meet basic needs, with over 71% resorting to borrowing from non-organized sources. Political participation weakens for about two-thirds of the population due to migration, but interestingly, women's political engagement at the local level strengthens. Despite the challenges, women feel more economically independent as they take on household responsibilities in the absence of male family members. These findings support the hypothesis that riverbank erosion disrupts economic and political structures, with a positive impact on women's lives.

### **Impact on Sustainability, Environment, and Society**

In this chapter, firstly the study explores the access and consumption pattern of electricity in the post-displacement phase. Positive progress is observed, driven by governmental schemes, relocation to areas with better electricity access, and increased awareness. Livestock play a crucial role in the rural areas of Terai lowland in North India, with a substantial increase in dependency on livestock for livelihoods after displacement. Types of livestock raised have shifted towards smaller animals due to space constraints, fodder availability, market considerations, and lower rearing costs. Despite challenges, the displaced community shows adaptability in sustaining their livelihoods amidst limited resources.

After riverbank erosion and forced relocation, the displaced community faces environmental challenges like floods, altered drought patterns, encounters with wild animals, and degradation issues such as deforestation and chemical fertilizer use. These threats pose significant challenges to their livelihoods and well-being. The availability of fresh water decreased during the post-displacement phase, with a shift to handpumps improving water quality. While access to water reduced, the improved quality is crucial for the community's well-being. Addressing these environmental challenges is essential for their sustainability and resilience. Sanitation has significantly improved post-displacement, with over 91% having personal washrooms at the household level. The findings support the hypothesis that riverbank erosion affects environmental and sustainability aspects, emphasizing the need to address these challenges for the well-being and resilience of the community.

### **Institutional Responses to Riverbank Erosion and Forced Displacement**

This chapter explores the various aspects of the environmental hazards of riverbank erosion. Surprisingly, only one third of the people was aware and had some official information about this hazard, mainly associating them with floods. Prevention efforts have been limited and temporary, with sandbagging as one measure, but not sustainable. Only a small proportion (14%) saw more permanent solutions like rip-rap, but these were for protecting the railway track rather than the community. Immediate assistance during erosion was provided by relatives, friends, and NGOs. Interestingly, a significant number of people (84%) migrated in groups, highlighting the strength of community bonds in coping with displacement challenges.

Further, it was found that the state's role is crucial for those forcibly displaced by environmental factors. Surprisingly, over 77% of the displaced people haven't received any government support yet. Only a small portion, less than one-third, received assistance like land for agriculture, financial aid for housing, and some monetary benefits during erosion. It's important to note that India lacks a specific policy for environmental-induced migration. Despite this, the forced migration has fostered resilience, empathy, and community bonds among the displaced. While the absence of a dedicated policy is concerning, the positive outcomes show their ability to adapt. The state's support is vital for their well-being and long-term sustainability.

## **Suggestions of the Study**

1. There is a strong need for a clear-cut, robust, and well-accepted methodology among academia and policymakers to measure and map out environmentally induced migrants at the state level.
2. The recognition from the state of environmentally induced migration is not 'sufficient'; rather, there is a strong need for the State to develop policies and programs at two levels:
  - a. To map out environmentally vulnerable areas and prevent riverbank erosion.
  - b. To establish rehabilitation and resettlement programs for people affected by environmentally induced forced displacement, such as riverbank erosion.
3. Until a strong policy or program is developed and deployed, there is a significant need to provide special attention and assistance to those displaced by riverbank erosion-induced events.
4. Among the immediate assistance areas, providing housing, access to schools, quality healthcare facilities, and job prospects should be prioritized.
5. Job orientation programs and hands-on technical training should be provided to the youth of this displaced community. These initiatives will enable them to gain valuable skills and become more employable.

## **Limitations of the Study**

Despite the researcher's best efforts to be meticulous; there are still some areas that may require further attention. The study has certain limitations, which are outlined below:

1. This study encountered several challenges that affected its scope and depth. One major limitation was the scarcity of secondary literature and mapping techniques for people impacted by river-related issues. Additionally, time and financial constraints constrained the extent of the research.
2. It's essential to note that this study adopted an ex-post facto research design, where the researcher worked diligently to avoid any 'post hoc fallacy' that means drawing incorrect conclusions about causality based on the sequence of events.

3. Time constraints were one of the significant limitations of this study. Due to limited time available for data collection, analysis, and interpretation, the depth and breadth of the research may have been affected.

### **Future Scope of Research**

1. **Environmental Sociology and Forced Migration:** The future scope of research lies in delving deeper into the field of environmental sociology, particularly concerning forced migration resulting from riverbank erosion. By developing a distinct and comprehensive sociological approach, researchers can better understand the social implications of such environmental-induced movements.
2. **Geographical Focus and Research Gap:** Existing literature on the impact of riverbank erosion on people's lives in South Asia has primarily focused on Bangladesh, leaving a noticeable gap in the study of Indian society. This geographical area offers ample opportunities for further research to expand the knowledge base and develop a more inclusive understanding of the issue.
3. **Investigating Irreversible Damage:** Environmental-induced catastrophes can inflict lasting and irreversible damage on affected societies. It is crucial to analyze and comprehend these impacts through in-depth case studies. By focusing on specific themes and phenomena shaped by riverbank erosion, researchers can gain profound insights into the extent of these changes.
4. **Humanitarian Assistance and International Involvement:** To comprehend the situation in the Indian context, researchers should assess the involvement of various humanitarian organizations, NGOs, and international bodies. Mapping out their roles and contributions can shed light on the effectiveness of aid measures and help improve future responses to such crises.