Research Paper

Exploring the Intersection of Health Issues and Socioeconomic Status: A Study of Residents in the Teesta Breakage Area, Bangladesh

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ABSTRACT

This study investigates the intricate relationship between health issues and socio-economic status in the Teesta Breakage Area of Bangladesh. Utilizing a mixed-methods approach, we collected and analyzed data from diverse sources, including health records, surveys, and interviews with local residents. Our findings reveal a complex interplay of factors influencing health outcomes, including access to healthcare, environmental conditions, and economic disparities. The study highlights specific health challenges faced by the community and explores how these challenges intersect with varying socio-economic statuses. Additionally, we identify potential interventions to address health disparities and promote well-being in the Teesta Breakage Area. The insights gained from this research contribute to the broader understanding of health dynamics in marginalized regions, providing a foundation for targeted policy and intervention strategies.

HIGHLIGHTS

- It could shed light on how financial constraints limit access to healthcare services among the residents of Teesta breakage area. This might involve analyzing the income levels and healthcare utilization, such as regular check-ups, medication adherence, and hospital visits.
- The research likely explores the disparities in health outcomes among different socio-economic groups in the Teesta Breakage Area. It might highlight differences in access to healthcare, prevalence of diseases, and overall health conditions among various income or social strata.
- The study may discuss the influence of education and health literacy on the health outcomes of individuals in the area. It might explore how awareness programs or educational interventions could potentially improve health practices and outcomes.
- Highlighting any existing community health programs or initiatives in the Teesta Breakage Area aimed at addressing health disparities could be a focal point. This could include discussions on their effectiveness, challenges faced, and recommendations for improvement.

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In the complex tapestry of global health challenges, the interplay between health issues and socioeconomic status has emerged as a critical area of investigation. This study delves into the specific context of the Teesta Breakage Area in Bangladesh, aiming to unravel the intricate connections between residents' health and their socio-economic circumstances. The Teesta Breakage Area, marked by its unique blend of geographic vulnerability and socio-economic diversity, provides a compelling setting for exploring the multifaceted relationships between health outcomes and socio-economic factors (Parven, A., et al. 2022).

The Teesta Breakage Area, situated in the Northern part of Bangladesh, is characterized by its proximity to the Teesta River and the consequential environmental challenges it faces (Alamgir, M. *et al.* 2022). This region is susceptible to various natural hazards, including riverbank erosion, floods, and soil degradation (Alamgir, M. *et al.* 2018). These environmental factors can significantly impact the health of the residents, creating a dynamic where health issues are entwined with the geographical realities of the area.

Socio-economic status is a crucial determinant of health, influencing access to healthcare, nutrition, and overall well-being (Islam, M.A. et al. 2017). In the Teesta Breakage Area, the diverse socioeconomic landscape presents a unique opportunity to examine how factors such as income, education, and occupation intersect with health outcomes. Understanding these dynamics is essential for developing targeted interventions that address the specific needs of different socio-economic groups. The study aims to identify and analyze prevalent health issues within the Teesta Breakage Area. This could encompass a range of topics, including but not limited to infectious diseases, maternal and child health, mental health, and non-communicable diseases (Daniels, M. et al. 2014). By examining the health landscape comprehensively, researchers can gain insights into the specific health challenges faced by the residents and their potential connections to socio-economic disparities.

In conclusion, this exploration at the intersection of health issues and socio-economic status in the Teesta Breakage Area offers a nuanced understanding of the challenges faced by the residents. By shedding light on these complexities, the study aspires to pave the way for informed, targeted interventions that can uplift the health and well-being of the community.

Significance of the Study

This research holds significant implications for public health policy and interventions in the Teesta Breakage Area and similar regions globally. By unraveling the complex interplay between health and socio-economic status, the study aims to contribute to evidence-based strategies for improving health outcomes and reducing health inequalities in vulnerable communities.

RESEARCH QUESTIONS

- (i) How does socio-economic status affect access to healthcare services in the Teesta Breakage Area?
- (ii) Are there disparities in healthcare utilization based on income, education, or occupation?
- (iii) What are the prevalent health issues among residents in the Teesta Breakage Area, and how do these vary across different socioeconomic groups?
- (iv) How do socio-economic factors such as income, education, housing conditions, and employment status influence the health outcomes and well-being of residents in the area?
- (v) Are there identifiable patterns in how socioeconomic status impacts long-term health trajectories?
- (vi) How do improvements or deteriorations in socio-economic conditions affect health outcomes over time?

OBJECTIVE OF THE PAPER

- (i) To evaluate the overall health status of residents in the Teesta Breakage Area, identifying prevalent diseases, health conditions, and patterns of illness.
- (ii) To explore the socio-economic status of the residents, encompassing income levels, education, occupation, housing conditions, access to healthcare, and sanitation facilities.
- (iii) To provide insights for policymakers and stakeholders regarding potential

interventions or policies that could address health disparities linked to socio-economic factors in the Teesta Breakage Area.

METHODS ADOPTED

A thorough review of the existing literature on health problems and socio-economic conditions in Bangladesh was conducted, particularly in the Teesta breakage region of northern Bangladesh.

Utilizing a mixed-methods approach, we collected and analyzed data from diverse sources, including health records, surveys, and interviews with local residents. The survey was conducted by designing quantitative data collection surveys on health indicators and socio-economic status, including questionnaires. Primary data was collected by using purposive sampling technique from Teesta breakage areas. The livelihoods of the Teesta breakage area people are significantly impacted by the Tista River. This area was:- (1) East ichly (2) Sonkordah (3) Mandain (4) Lokkhitary (5) Char sokordah (6) West mohipur (7) West ichly (8) Rodesshor (9) Bijoy baan (10) Char burie zongibaad (11) Zele para (12) Machuapara (13) East mohipur (14) Mohipur. Their personal experiences with health problems, their perceptions of the health care system, and the influence of socio-economic factors on their health were explored. Analyzing existing health records, if available, identified trends in prevalent health problems and their association with socio-economic factors. This also included data from local clinics, hospitals or health departments. Observational studies were conducted to assess living conditions, hygiene practices, and environmental factors that may contribute to health problems. An attempt was made to increase the validity of the study by combining findings from different methods (triangulation) to ensure the robustness and reliability of the research findings.

Data Analysis

Use descriptive statistical methods along with to analyze quantitative data, such as descriptive analysis to understand the socio-economic impacts and health outcomes. For qualitative data, employ thematic analysis to identify patterns and themes.

Literature Review

The relationship between health issues and socio-

economic status, particularly in regions affected by events like the Teesta River breakage in Bangladesh, has garnered significant attention in academic literature. Studies often highlight the intricate interplay between these factors and their impact on public health outcomes (Levesque, J.F. *et al.* 2013). However, due to the specific context of the Teesta River breakage, there were a limited amount of literature directly addressing this current issue.

In general, research on health disparities in Bangladesh frequently underscores how socioeconomic status acts as a determinant of health (Ahmed, S.M. *et al.* 2005). Studies often show that individuals from lower socio-economic backgrounds face higher risks of health problems due to limited access to healthcare services, inadequate nutrition, poor sanitation, and exposure to environmental hazards (Prüss-Üstün, A. *et al.* 2016).

Regarding the Teesta River breakage, literature were explore the immediate and long-term health implications on communities residing in the affected areas. These could include waterborne diseases, displacement-related stress, loss of livelihoods impacting nutrition, and mental health challenges due to the upheaval (Raker, E.J. *et al.* 2020).

However, due to the specificity of the Teesta breakage context, there might be a scarcity of direct literature addressing this incident. In such cases, interdisciplinary approaches, combining information from studies on environmental disasters, public health, and socio-economic factors, might offer insights into understanding the situation and its implications on health in the affected communities.

FINDINGS

Socio-economic Status Measurement

Socio-economic status (SES) is a multidimensional concept that encompasses various indicators reflecting an individual's or a family's position within the social and economic hierarchy. Commonly used indicators to assess socio-economic status include:

Income

• **Personal Income:** The amount of money an individual earns from various sources, such as wages, salary, investments, and other forms of income.

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• Household Income: The total income earned by all members of a household, which may include multiple sources such as employment, business, or investments.

Education:

- Educational Attainment: The highest level of education an individual has completed, often measured in terms of degrees or certificates obtained (e.g., high school diploma, bachelor's degree, master's degree).
- Educational Achievement: The skills and knowledge acquired through education, which can influence socio-economic status.

Occupation

- Occupational Prestige: The perceived social status associated with a particular occupation. Some occupations are considered more prestigious than others, and socio-economic status can be inferred from the type of work a person does.
- Job Title and Position: Specific details about a person's role and level within their profession can provide insights into their socio-economic status.

Wealth

- Net Worth: The total assets owned by an individual or household minus their liabilities. This includes property, investments, savings, and other valuable possessions.
- **Property Ownership:** Owning real estate, land, or other valuable properties is an indicator of wealth.

Housing

- Housing Conditions: The type and quality of housing in which an individual or family resides can be indicative of their socio-economic status.
- **Homeownership:** Owning a home is often associated with higher socio-economic status compared to renting.

Access to Resources

• Access to Healthcare: The ability to afford and

access healthcare services can be a reflection of socio-economic status.

• Access to Quality Education: The availability and affordability of quality education, including schools and extracurricular activities, can impact socio-economic status.

Occupational Status

- **Job Stability:** The security and stability of an individual's employment, including factors such as job tenure and employment benefits.
- **Employment Status:** Whether an individual is employed, unemployed, or underemployed can be an important indicator.

Discuss potential challenges and limitations of measuring socio-economic status in Bangladesh

Measuring socio-economic status (SES) in Bangladesh, especially Teesta breakage areas like in any other country, poses various challenges and limitations due to the complex and dynamic nature of economic and social factors. Here are some potential challenges specific to Bangladesh:

- Informal Economy: A significant portion of Bangladesh's economy operates in the informal sector, which may not be adequately captured by traditional measures of SES. Many individuals engage in informal jobs or smallscale businesses that are not easily quantifiable, making it challenging to accurately assess their economic status.
- Rural-Urban Disparities: Bangladesh experiences significant rural-urban disparities especially Teesta breakage area. Traditional SES indicators may not effectively capture the variations in living standards, access to education, and healthcare between rural and urban areas. The dynamics of poverty and wealth may differ considerably between these regions.
- Agricultural Dependency: A substantial portion of Bangladesh's population relies on agriculture for livelihoods. Fluctuations in crop yields, natural disasters, and other factors affecting the agricultural sector can impact SES but may not be adequately accounted for in

standard SES measurements in Teesta breakage area.

- Income Inequality: Income distribution in Bangladesh is not uniform, and there is a notable gap between the rich and the poor. Traditional SES measures may not fully capture the nuances of income inequality, especially when wealth is concentrated in a small segment of the population.
- Limited Access to Formal Financial Systems: Many individuals in Bangladesh, particularly in Teesta breakage areas, may not have access to formal financial systems. Lack of bank accounts and financial records can make it difficult to assess assets and financial stability accurately.
- Quality of Education and Healthcare: While access to education and healthcare is improving, the quality of these services can vary widely. SES indicators that rely solely on the presence of schools or health facilities may not reflect the actual impact on individuals' well-being.
- Environmental Vulnerability: Bangladesh is prone to natural disasters such as floods and cyclones especially in Teesta breakage area. These events can have a significant impact on the economic well-being of communities, but measuring this impact accurately is challenging.

Health Issues Assessment

Bangladesh has historically faced several health challenges, and ongoing issues may include:

- Infectious Diseases: Bangladesh has grappled with infectious diseases such as dengue, malaria, and waterborne diseases like cholera. Addressing these diseases often involves public health interventions, vector control, and sanitation improvements.
- Maternal and Child Health: Improving maternal and child health is a global priority, and Bangladesh is no exception. Issues such as maternal mortality, infant mortality, and malnutrition have been areas of concern.
- Non-Communicable Diseases (NCDs): Like many other countries, Bangladesh is experiencing a rise in non-communicable diseases such as cardiovascular diseases, diabetes, and respiratory illnesses. Lifestyle

factors, including diet and physical activity, are important considerations in addressing NCDs.

- **Mental Health:** Mental health awareness and services have gained attention globally. In Bangladesh, there is a growing recognition of the importance of mental health, with efforts to reduce stigma and improve access to mental health services.
- Nutrition and Food Security: Malnutrition and food security are persistent issues in Bangladesh. Efforts are made to improve nutrition, especially among vulnerable populations such as children and pregnant women.
- Access to Healthcare: Ensuring equitable access to healthcare services, particularly in rural areas, is an ongoing challenge. Issues such as healthcare infrastructure, workforce distribution, and financial barriers can impact access to medical care.

It's important to check with local health authorities, government health agencies, or international health organizations for the most recent and specific information on health issues in Bangladesh. Health priorities may evolve based on emerging challenges and ongoing public health efforts.

Empirical findings

Respondents Basic Characteristics

Table 1 revealed that 22% of respondents are in the 25-34 age range. 72 percent of occupations are in agriculture. The majority of responders (53.30%) have finished their primary schooling. In the Teesta River Eruption Area, respondents' raw percentage for residential housing type is higher at 60%. 51.60 percent of those surveyed said they don't use sanitary toilets. Additionally, Table 1 shows that roughly 72% of respondents said they had no difficulties getting their family members into the survey area for an education. The remaining 28% have a variety of obstacles when it comes to getting an education. While 20% of the respondents had held a job in the past but are currently unemployed, 58% of the respondents are currently employed. Ninety percent of those surveyed experienced a rise in water in their homes. The cause of this is erosion caused by rivers. Only 7% of those surveyed said their homes lacked tube wells. Even now, people

Basic Characteristics	Number (Percentage)	Basic Characteristics	Number (Percentage)
Age Group		Do you have any challenges regarding access to education for yourself or your family members?	
18-24	16(13.30)	Yes	34(28.30)
25-34	26(21.70)	No	83(71.70)
35-44	20(16.70)	Current occupation involves	
45-54	22(18.30)	There was not now	24(20.00)
55-64	16(13.30)	Yes	70(58.30)
65+	20(16.70)	No	26(21.70)
Occupation		Does the river rise in your 1	residence?
Rickshaw Driver	4(3.30)	Yes	108(90.00)
Job	2(1.70)	No	12(10.00)
Business	4(3.30)	Are there tube wells in the	residence?
Laborer	10(8.30)	Yes	112(93.30)
Agriculture	72(60.00)	No	8(6.70)
Others	28(23.30)	Where do you take shelter i	in case of calamity?
Education		Need not shelter	8(6.70)
Illiterate	22(18.300)	Other's Land	42(35.00)
Primary	64(53.300)	On Dam	52(43.30)
SSC	46()21.700	Government Establishment	4(3.30)
HSC	4(3.300)	Shelter	6(5.00)
Graduate	2(1.700)	Other(specified)	6(5.00)
Post Graduate	2 (1.700)	Road	2(1.70)
Types of residential housing		Type of street near your house?	
Floating	2(1.70)	Half broken	2(1.70)
Raw	72(60.00)	Paved	70(58.30)
Tinned	30(25.00)	Unpaved	48(40.00)
Dark Ripe	8(6.70)	Are you affected by any disease due to river erosion?	
Ripe	8(6.70)	Yes	72(60.00)
Do you use sanitary latrines?		No	48(40.00)
Of others	8(6.70)		
Yes	50(41.70)		
No	62(51.60)		

Table 1: Distribution of respondents by Basic Characteristics

still drink water from wells and rivers and contract a variety of water-borne illnesses. When a calamity strikes, 58% of the respondents say they seek refuge on dams. In the research region, 40% of the roads close to homes are unpaved and 58% are paved.

Respondents Health condition

The studied regions are flood-prone areas with a high probability of flooding and degradation of riverbanks. A field survey is required in order to provide an accurate picture of women's and children's health in this region. Regarding the issue of whether you have experienced any diseases as a result of river erosion, sixty percent of the population in the Teesta flood-affected area reports having some kind of ailment. Of these, 25% experience diarrhoea. They most likely contract these illnesses by consuming floodwater brought on by river erosion. Skin problems afflict thirty percent of the population in the Teesta River watershed. They have eczema, most likely from bathing in the contaminated river water. Conversely, 13% of the population suffers from dental conditions. The respondents believe that eating a lot of gull has caused them to get these diseases. In the Teesta Rift region, the majority of people—roughly 52% of the population—seek allopathic medical care while ill. Conversely, approximately 27% of the population underwent Kaviraj (Jhar-Fuk) therapy. They continue to mistreat people in superstitious ways, such as Jhar-Fuk. When asked if they had encountered any difficulties in the previous year getting access to health care services (such as availability, cost, or distance), almost 42% of field respondents answered in the affirmative.

Table 2: Health condition

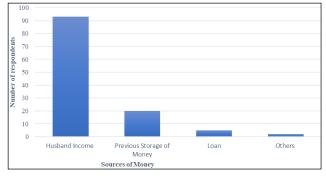
Questions	Number	Percentage
Are you affected by any disease	e	
due to river erosion?		
Yes	72	60.00
No	48	40.00
Types of diseases		
No diseases	2	1.70
Body Pain	8	6.70
Stomach pain	2	1.70
Fever	8	6.70
Dental	16	13.00
Cough	8	6.70
Jaundice	4	3.30
Diarrhea	30	25.10
Headache	2	1.70
Malaria	2	1.70
Skin diseases	36	30.00
Typhoid fever	2	1.70
Types of treatment		
Allopathic	62	51.70
Homeopathic	14	11.70
Ayurvedic	6	5.00
Kaviraj (Jhar-Fuk)	32	26.60
Other	6	5.00

Have you or a family member experienced any challenges accessing health care services in the past year? (e.g., distance, cost, availability)

<u>No</u> <u>50</u> 4	41.70

Family Cost

Women have to maintain families internal some work and for this money are needed. In this case, maximum women take the necessary money from their husband to maintain the family works which number is 105 out of 148 respondents in the study area. Some women also use previous storage money or take loan from others and which number is low. (Fig. 2).



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Fig. 1: Family cost

Fig. 2: According to the report, a large number also have skin conditions, fever, diarrhoea, and stomach ache. According to the locals, toilets and wells are still underwater, and there is also a lack of food in the villages.



(Photo, 2024)

Impact on economic livelihoods in Teesta breakage area in Bangladesh

The Teesta River is crucial to the economy and livelihoods of people living in the areas surrounding it in Bangladesh. The river supports agriculture, fishing, and provides water for irrigation, making it a lifeline for the region.

However, changes in the flow of the Teesta due to various factors like dam construction, climate change, and water diversion projects have impacted the economic livelihoods of people in the area. Reduced water flow affects agriculture by disrupting irrigation patterns, leading to decreased crop yields and impacting the income of farmers. Moreover, changes in the river's course can result in erosion of agricultural land, causing further loss.

Fishing communities along the Teesta also face challenges when the river's flow is altered. Reduced

water levels or changes in the river's path can lead to a decline in fish populations, affecting the income and food security of those reliant on fishing.

The Teesta's impact on hydropower generation is also significant. Changes in the river's flow affect the potential for generating hydroelectricity, which impacts both local power supply and the region's overall energy dynamics.

The Bangladesh government has been in discussions with India regarding water-sharing agreements for the Teesta River to mitigate these challenges. However, finding a mutually acceptable solution that balances the needs of both countries while ensuring the livelihoods of those dependent on the river remains an ongoing challenge.

CONCLUSION

The health issues and socio-economic status in the Teesta Breakage Area in Bangladesh indicates a complex interplay between these factors. The region faces significant challenges concerning healthcare access, infrastructure, and economic opportunities, leading to a considerable impact on the residents' health. The health challenges in the Teesta Breakage Area are intricately linked to socio-economic factors. Addressing these issues requires a multifaceted approach, involving healthcare reforms, socioeconomic development initiatives, community engagement, and supportive government policies. Policymakers need to prioritize the allocation of resources to address these interconnected issues. Policies aimed at improving healthcare services, infrastructure, and economic development can significantly uplift the living standards in the Teesta Breakage Area.

FUTURE POTENTIAL

However, we provide general insights on the potential impact and importance of studies that explore the intersection of health issues and socioeconomic status, especially in specific geographical areas like the Teesta Breakage Area, Bangladesh. Such studies can have several future implications and benefits:

• The findings from such a study can contribute valuable insights to policymakers, helping them make informed decisions on healthcare and socio-economic policies in the region.

This could lead to targeted interventions and resource allocations.

- Understanding the specific health issues prevalent in a particular area, along with their correlation to socio-economic factors, can aid in developing effective healthcare plans. This might include tailored health programs, vaccination campaigns, and disease prevention initiatives.
- Governments and non-governmental organizations often allocate resources based on the identified needs of a population. A study of this nature can help guide resource allocation, ensuring that interventions are directed towards the most pressing health and socio-economic challenges.
- If the study identifies global health issues or parallels with other regions, it may open avenues for international collaboration. Sharing knowledge and best practices across borders can lead to more effective solutions.
- The study could contribute to the academic field by adding to the body of knowledge on the intersection of health and socio-economic status. It may stimulate further research in related areas and encourage scholars to explore similar issues in different contexts.

LIMITATION OF THE STUDY

It is true that people's perceptions about disease, beliefs and community's health needs are important elements for studying health situation in the study area.

FINANCIAL SUPPORT

There is no financial support regarding the study.

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