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Professor Dr. Md. Bakhtiar Uddin
Dean
Faculty of Social Science
Jatiya Kabi Kazi Nazrul Islam University



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EDITOR'S NOTE

It is with great pleasure that I present this volume of the JKKNIU Journal of Social Sciences, marking a significant milestone in our ongoing commitment to academic rigour and scholarly advancement. Since the faculty's establishment in 2006, we have remained steadfast in our dedication to fostering interdisciplinary research and promoting academic excellence. This volume reflects the diverse range of contributions from the social sciences, including Economics, Public Administration, Governance, Folklore, Anthropology, Population Science, Local Government, Urban Development, Sociology, and related disciplines.

The publication process for this journal is both thorough and demanding, ensuring that each article adheres to the highest standards of scholarly integrity. The contributions in this volume have undergone rigorous peer review, in line with our strict review policy, ensuring that they meet the expectations of both academic and professional communities. We incorporated plagiarism-detection software (Turnitin) as an integral part of our review process, further strengthening the journal's credibility and quality. We discourage heavy reliance on the use of AI in writing the manuscript. JKKNIUJSS has an independent website and is a member of Crossref, which means that every accepted article will be published online first and assigned a DOI number.

We are confident that the insights and findings presented in this volume will contribute significantly to advancing knowledge across a range of fields, addressing the needs of scholars, researchers, and practitioners alike. I would like to express my sincere gratitude to the authors whose scholarly contributions are featured in this issue, as well as to the reviewers for their invaluable insights. My appreciation also extends to the dedicated editorial team and faculty members within the Faculty of Social Science, whose collaborative efforts have been instrumental in the successful realisation of this publication.

Professor Dr. Md. Bakhtiar Uddin
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&
Dean, Faculty of Social Science

Natural Justice and Its' Constitutional Foundations, Judicial Interpretations, and Implementation Challenges: A Legal Study with Special Reference to Bangladesh

Md. Ahsan Kabir ¹

ABSTRACT

This study focuses on the legal development, application, and intellectual foundations of natural justice concepts in Bangladesh's administrative and constitutional structure. It looks at how *audi alteram partem* and *nemo judex in causa sua* are crucial legal safeguards for equity in judicial, administrative, and quasi-judicial proceedings. The study examines pertinent constitutional provisions, rulings of the court, and case laws, emphasising how natural justice is impliedly included and how it helps to restrain capricious state activity. It assesses the legal and procedural flaws that impede procedural justice and points out real-world difficulties and implementation irregularities, especially inside state institutions. Although courts have broadened the definition of natural justice to include non-judicial organizations and legal representation. The study also discusses acknowledged exceptions where its application might be disregarded for statutory, urgent, or practical reasons. Finally, the study confirms that natural justice is essential to protecting individual rights, encouraging responsibility, and strengthening the rule of law in Bangladesh; nevertheless, more institutional support is required to guarantee its steady application.

Keywords: Natural Justice, Bangladesh Constitution, Fairness, Rule of Law, Legal Proceedings

INTRODUCTION

The Bangladeshi Constitution makes no explicit reference to the natural justice principle. However, there are some terminologies has been used as social and economic justice, without being informed, reasonable opportunity of showing cause and due notice is incorporated in the Preamble and the Constitution as well (Williams, 2010). Now a day, in many developed countries where the principles of natural justice have been mentioned specifically (Okereke, 2010). In Bangladesh Constitution, some rules of natural justice have been included by which it can limit the state power (Mollah, 2008). Here, it is the constitutional obligation to as the term said due notice and no action is valid without being

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informed of the other side. There are some bargaining issues whether the authority has maintained the 'due process' of law. Though the term has not been used explicitly as 'due process' in the Constitution of Bangladesh. But the spirit of this term that we find in article 33 and 135 of Bangladesh Constitution. The following quotes has rightly observed by Victor Cousin that-

The universal and absolute law is that natural justice which cannot be written down, but which appeals to the hearts of all.

-Victor Cousin

METHODOLOGY

The qualitative legal research methodology used in this study is mainly based on doctrinal analysis, with some empirical legal inquiry thrown in. It entails the methodical analysis of scholarly works, case law, statutory documents, constitutional texts, and legal comments. With the study the author will explore the basic understanding, interpreting, constitutional development and practical implication of the principle of natural justice in Bangladesh.

OBJECTIVES OF THE STUDY

- (a) To investigate the legal and constitutional foundations of Bangladesh's natural justice principles, even if the Constitution doesn't specifically mention them.
- (b) To examine the judicial development and interpretation of natural justice based on case law
- (c) To justify the practical challenges in applying natural justice in Bangladesh's administrative and quasi-judicial systems.
- (d) To analyse the legitimacy and impact of the exceptions to natural justice within the legal and administrative framework of Bangladesh.
- (e) To propose institutional and legal reform recommendations in order to successfully integrate, uphold, and raise knowledge of natural justice in Bangladesh's legal education and governance systems.

STATEMENT OF THE PROBLEM

The present study mainly concentrates on the existence of natural justice principles within the legal framework and their judicial interpretation, even though it offers a thorough summary of these principles' theoretical underpinnings, case law application, and constitutional implications in Bangladesh. This paper does not fully explore the institutional and practical enforcement mechanisms—or lack thereof—that determine how successfully and consistently these principles are applied across various administrative and quasi-judicial bodies in real-world scenarios. There is a dearth of empirical research on the distinctions between judicial articulation and administrative practice, especially when it comes to procedural justice, legal counsel access, and public awareness. Additionally, the study doesn't look at how different sectors' interpretations or applications such as those in education, public service, and law enforcement affect natural justice's overall effectiveness in defending citizen rights. A greater comprehension of the systemic issues and potential

solutions required to guarantee strong adherence to natural justice in Bangladesh would be possible by filling in these gaps through empirical research or comparative studies.

THE CONCEPT OF NATURAL JUSTICE AND ITS' IMPORTANCE

Natural Justice is a term which is a fundamental concept in administrative law. There is no any clear cut and precise definition of term 'natural justice'. It is much more descriptive than giving a definition. The same guidelines and protocols that govern a nation's appropriate administrative conduct also apply to the principles of natural justice (Lockwood, 2010). The common law is where the term "natural justice" first appeared. In America, the principle natural justice is called 'due process of law'. In Latin, natural justice is termed as '*Justitia Naturalis*'. Natural justice is that the defendant has not been denied the chance to state his case, and this is something the courts closely monitor (Black's Law Dictionary). In other words, natural justice is unchanging moral principles common to all human beings (Illustrated Oxford Dictionary). Administrative agencies must follow natural justice, which is a representation of higher procedural norms established by courts, when making judgments that negatively affect the rights of private individuals. The expression of natural justice is not comparatively new, and was used interchangeably with the expression 'natural law', 'natural equity' or 'eternal law' or law of nature or similar expressions in the past (Marshall, 1996).

According to Lord Hewart, C. J., justice must be done and must be clearly and unquestionably perceived to be done. Even though the Act contained no explicit language mandating that the party be heard, common law justice will make up for the legislature's lack of action (Cooper Vs. Wandsworth Board of Works, 1863). The defendant board has the authority to demolish any building that was constructed without license and to do so without providing a chance for hearings. In accordance with this clause, the board destroyed the plaintiff's home. The legislative provision was not broken by the board's actions. The court concluded that the rule that no one might be deprived of their property without first being given an opportunity to be heard limited the Board's authority. Prof. De Smith observes that the court will even use natural justice when a legislation permits interference with civil rights property but says nothing about notice or hearing. C. J. Beg says that the concerned authority shall have the power for taking different action by giving reasonable opportunity to be heard though such provision was not specified in the statute (Maneka Gandhi Vs. Union of India, 1987). It was decided in Painter's case (1836) that without being given the opportunity to be heard, a party could not suffer financially or in person. Both human and divine rules acknowledge the first rule of civilized law.

Therefore, an order of removal that is not prepared in accordance with the law and that does not give the plaintiff a chance to present justification before being approved by the governing body cannot be considered lawful and valid (Sayeed Jahangir Hossain Vs. Md. Moyeenuddin and others, 2000). Lastly, we may say that the principle of natural justice maintains the check and balance between the government authorities and its actions. The goal of the current study is to determine which case laws best apply the natural justice principle. In order to identify the natural justice principles found in the Bangladeshi

Constitution and how they are used in actual case law. As a result, the study will show a clear picture of the principles of natural justice in laws and practice.

DEVELOPMENT OF NATURAL JUSTICE PRINCIPLE

The common law courts have evolved the notion of natural justice, and the concept of the rule of law has been essential to the development of this doctrine. They serve a relatively comparable purpose in English law as those addressed by the American idea of procedural due process (Sayeed Jahangir Hossain Vs. Md. Moyeenuddin and others, 2000). There is, however, an essential difference between the legal and constitutional implication of the principles of natural justice in two major jurisdictions (Sayeed Jahangir Hossain Vs. Md. Moyeenuddin and others, 2000). The Constitution of the United States contains the due process clause, thereby giving constitutional sanctity to the rules of natural justice. The natural justice principles under English law are therefore based on moral and ethical principles, which are represented in "the justice of the common law," which only fills in the gaps left by the legislature (Sayeed Jahangir Hossain Vs. Md. Moyeenuddin and others, 2000).

WHETHER ADMINISTRATIVE BODY IS BOUND BY THE NATURAL JUSTICE?

It is established law that all courts, judicial bodies, and quasi-judicial authorities must abide by the natural justice principles. Whether the administrative bodies are bound by these natural justice principles are a major question (Sayeed Jahangir Hossain Vs. Md. Moyeenuddin and others, 2000). In England, the House of Lords had to decide whether the ministers were bound by the natural justice principles. Later, it was noted that the ministers were operating in an executive rather than a judicial capacity. The only question that remains is whether or not the minister has followed the instructions (Franklin vs Minister of Town and Country Planning, 1948). In a Bombay case, Justice Chagla stated that it would be incorrect to incorporate natural justice concepts into the evaluation of an administrative decree. However, the perspective above has been modified. According to Lord Denning, the *Ridge v. Baldwin* decision later disproved the assertion that the natural justice principles only applied to judicial processes and not to administrative ones. (R vs Gaming Board, 1970). The principles of natural justice, according to Prof. Wade, apply to nearly every administrative power. Lord Denning also observed in another case that "It is well settled that a statutory body, which is entrusted by statute with a discretion, must act fairly. It does not matter whether its functions are described as judicial or quasi-judicial on the one hand, or as administrative on the other hand (Breen vs Amalgamated Engineering Union, 1971)." This rule is accepted in India also. Justice Shah observed that "It is true that the order is administrative in character, but even an administrative order which involves civil consequences.... must be made consistently with the rules of natural justice. A civil right adversely affected is the core for the invocation of this rule. But what is a civil consequence? By passing the verbal body traps, civil consequence undoubtedly covers infringement of not merely property of personal rights but of civil liberties, material deprivations, and non-pecuniary damages. In its comprehensive connotation, every thing that affects a citizen in his civil life inflicts a civil consequence" (State of Orissa vs Dr. Binapani, 1967). In *Maneka Gandhi's* case Justice Kailasam pronounced "The frontier between judicial or quasi-judicial

determination on the one hand and an executive on the other has become blurred. The rigid view that principles of natural justice applied only to judicial and quasi-judicial acts and not to administrative actions no longer holds the field.”

PRINCIPLES OF NATURAL JUSTICE

Natural justice comes in a variety of hues, tints, forms, and shapes. Natural justice principles are not incorporated rules, and they cannot be confined to a strict formula's straight jacket. The circumstances of the case, the type of investigation, the guidelines the tribunal operates under, and the topic of discussion must all be taken into consideration when determining the standards of natural justice.

The requirement of natural justice should be -

- (a) The accused person should know the accusation which is made against him.
- (b) The person should be given an opportunity to describe his position regarding the fact.
- (c) The court or tribunal must act in good faith.

Generally, there are two recognized principles of natural justice-

- (a) *Audi Alteram Partem*- No man should be condemned unheard.
- (b) *Nemo Judex in Cuasa sua*- No man shall be a judge in his own case.

Rule of *Audi Alterem Partem*

A person must be punished according to natural justice, and he must be given the chance to defend himself against the suggested penalty (Dacca University Vs. Zakir Ahmed, 1964).SD Therefore, before punishing someone, the authority must give warning. If any punishment has been awarded before giving notice that punishment be treated as void and the violation of the constitution as well. In this regard, it is pertinent to refer here the leading case *Dacca University Vs. Zakir Ahmed, 16 DLR (1964), SC, 722*. In this case, it was decided that a student who engages in misconduct should not be punished without first giving the authority a chance to explain their actions. Organizations like educational institutions and law enforcement agencies that are responsible for upholding discipline are not exempt from the natural justice principles (Dacca University Vs. Zakir Ahmed, 1964). As per the observation of Justice Fortescue “Even Adam has not been prosecuted before giving an opportunity of showing cause of his mistake. ‘Adam’ says God, “where art thou? Hast thou not eaten of the tree, whereof I commanded thee that thou shouldst not eat (R vs University of Cambridge)?” So, God himself gave the right to defence when he expelled Adam from Heaven.

Essence of *Audi Alteram Partem*

(a) Notice

The accused must be notified to provide justification for the proposed action and to request an explanation before any action is taken (Robinson, 2017). It is necessary for a fair hearing. Any order that is issued without prior notification is *void ab initio* and is against natural justice principles. Notice should be given even in cases where the statute does not specify notice requirements and the action has a negative impact (Menell and Meurer, 2013). The

allegations must not be ambiguous or unclear, and the notification must be precise, unequivocal, and explicit.

(b) Hearing

The second requirement of the *audi alteram partem* maxim is that the person in question must be given an opportunity to be heard before any unfavourable action is taken against him (Verma, 2021). However, unless the statute specifically grants it, a person does not have the right to an oral hearing. Prof. De Smith also says that "in the absence of clear statutory guidance on the matter, one who is entitled to the protection of the *audi alteram partem* rule is now *prima facie* entitled to put his case orally." Once more, if one of the disputing parties is allowed to conduct an oral hearing before the adjourning authorities, the others must also be given the same opportunity. Oral hearings are required when there are intricate legal and technical issues at play or when the stakes are extremely high (Wagner, 2009). Therefore, if there are no statutory requirements governing oral hearings, courts will have to base their conclusion on the case's facts and circumstances.

(c) Counsel

Legal representation is not seen as a component of natural justice and is not a right that may be asserted. But generally speaking, administrative law has recognized the right to appear through legal representation. C.K. Allen rightly says that "Experience has taught me that to deny persons who are unable to express themselves the services of competent spokesman is a very mistaken kindness." Furthermore, Lord Denning observed that "When a man's reputation or livelihood is at stake, he not only has a right to speak by his own mouth, he has also a right to speak by counsel or solicitor, even a prisoner can have his friend." De Smith is also of his opinion that in general, "Legal representation of the right quality before statutory tribunals is desirable and that a person threatened with social or financial ruin by disciplinary proceedings in a purely domestic forum may be by gravely prejudicial if he is denied legal representation." The request for legal representation may be turned down if the issue is straightforward, such as whether the money in question has been paid or not, or if the assessment orders are accurate. However, if the oral evidence given during the inquiry necessitates the use of a lawyer for witness cross-examination, the party in question should be permitted to hire a counsel to represent him (Drew, 1990). The party may not be able to manage the situation effectively when up against an experienced lawyer if there are complicated legal concerns, complicated factual and legal questions, or a large amount of evidence (Walton, 2010).

Nemo Judex Causa Sua

"No one should be a judge in their own cause," or *Nemo judex causa sua*, is a basic principle of natural justice or procedural fairness in court. This principle underscores the importance of impartiality and independence in adjudication, emphasizing that individuals or entities vested with the authority to adjudicate disputes must not have a personal interest in the outcome of those disputes (Papayannis, 2016). In the context of legal systems, "*nemo judex causa sua*" operates as a safeguard against bias and ensures that justice is administered fairly. It can be applied to a wide range of legal fields, including administrative, criminal,

and civil law. The idea holds that decision-makers should be free from any conflicts of interest that might affect their ability to make objective choices (Keren, and Bruin, 2003).

8.3.1 Key aspects of "Nemo Judex Causa Sua" Include

(a) Impartiality

Decision-makers should approach each case with an open mind, free from any preconceived notions or personal biases.

(b) Independence

Adjudicators should not be subject to external influence or pressure that may affect their judgment. They must be able to decide cases based solely on the merits of the arguments and evidence presented before them.

(c) Conflicts of Interest

Individuals with a personal interest in the outcome of a case should recuse themselves from participating in its adjudication to avoid any perception of bias or unfairness.

(d) Fair Process

Upholding the principle of "*nemo judex causa sua*" contributes to the overall fairness of the legal process, instilling public confidence in the integrity of the judiciary or decision-making body. For instance, the principle mandates that administrative decision-makers, whether government representatives or regulatory agencies, act impartially and equitably when making judgments that impact the rights or interests of people or organizations in the framework of administrative law. Judges or juries in criminal and civil procedures must also make decisions only on the basis of the law and the evidence that is given, without any personal stake in the case's outcome. The use of "*nemo judex causa sua*" highlights the more general natural justice tenets, such as the right to due process and a fair trial. By guaranteeing that justice is dispensed without fear or favour, it upholds the rule of law and safeguards the integrity of the judicial system. In Bangladesh, the principle of "*nemo judex causa sua*" finds expression in various legal provisions and judicial decisions aimed at upholding procedural fairness and preventing conflicts of interest in legal proceedings. Its application contributes to the protection of individual rights and the promotion of a just and equitable society.

EXCEPTION OR EXCLUSION OF NATURAL JUSTICE

The term "exception" in the context of natural justice is actually misleading because the rule of audi alteram partem is upheld in these exclusionary cases not as an exception to "fair play action," but rather because it is impossible to infer anything unfair by denying someone the opportunity to present or meet their case.

(a) Statutory Exclusion

When the legislature passes any laws in that time the principles of natural justice can be excluded directly or indirectly. Then the court cannot ignore it (Groves, 2013). No one may be fired from the public service without first providing a reasonable opportunity to explain why they should not be let go, as required by our constitution (Article 135 of the People's

Republic of Bangladesh Constitution, 1972). But in some cases this provision is not applied. It is to be remembered that in our country parliament is not supreme. It's subject to judicial review. So, when a statute says anything about observance of natural justice, court presume its presence. A government servant was given compulsorily retirement. According to the guideline, the government employee in question did not need to be given a chance to argue against the proposed action (Union of India vs J.N. Sinha, 1971). Justice Hegde observed "There is no denying the fact that in all organizations and more so in government organizations there is a good-deal of dead wood. It is in public interest to chop of the same (Union of India vs J.N. Sinha, 1971)."

(b) Legislative Act

The natural justice principles do not apply to legislative activity since they establish policies without taking into account the needs of specific individuals (Solum, 2006). It is therefore not required to give notice or provide a hearing prior to passing legislation that imposes taxes, sets prices, etc (Alexander, 2000).

(c) Exclusion in case of Statutory Exception or Necessity

If an individual is the only one eligible or allowed to make that decision or carry out that action, they will not be disqualified on the grounds of bias against them. The administration as a whole would come to a complete stop if this exception were to be denied as there would be no other way to decide that issue. However, the need must be sincere and substantial. Because the government could have easily changed the committee's constitution, the doctrine of necessity cannot be invoked in cases where the selection committee members were also the textbook's authors (J. Mahapatra vs State of Orissa, 1984).

(d) Admitted or Undisputed Fact

In protest of the actions of the superior officer, a police officer fasted and stayed absent without permission. There was no discussion of offering the criminal a chance to cross-examine witnesses during the departmental investigation, since they had admitted all pertinent facts (Channabasappa vs State of Mysore, 1972).

(e) Confidential Inquiries

The police monitoring register is a secret record, according to a ruling by the Indian Supreme Court. It is not accessible to the general public, including the individual whose name is entered in the registry (Roos and Nicol, 1999). The court went on to say that if natural justice principles are applied in such a situation, the purposes of justice may be undermined rather than met, undercutting the entire purpose of surveillance (Roos and Nicol, 1999).

(f) Preventive Action

The implementation of natural justice standards may be disregarded if the administrative authority's action is a suspension order intended to serve as a preventive measure rather than a final directive. While a criminal case against a student for stabbing a fellow student is still underway, the school issued an order banning the student from entering the building and from attending courses. The denial of natural justice was the basis for the challenge to this order. Rejecting the argument, the Delhi High Court ruled that the principles of natural justice would not apply because such an order might be comparable to a preventive order of

suspension awaiting inquiry, which is meant to preserve peace (Roos and Nicol, 1999). As a result, natural justice might stifle the desired course of action or hinder or paralyze the application of the law (Roos and Nicol, 1999). In another case it has been observed that “Where an obligation to give notice and opportunity to be heard obstruct the taking of prompt action, especially action of a preventive or remedial nature, right of prior notice and opportunity to be heard may be excluded by implication (Maneka Gandhi Vs. Union of India, 1978).” Interim precautions may be made to prevent certain harm in emergency situations and rare cases (Hick et al., 2012). Because, ‘Bold the stales, after the horse has been stolen’ is not a command of natural justice.

(g) Exclusion in Emergency

When prompt preventive or corrective action is needed in such unusual emergency conditions, notice and hearing procedures may be waived (Bagley, 2017). Therefore, if the law stalls the process, the right to be heard will not be included. Although it has been said that a debating society cannot command an army, it is also true that, to the dismay of all allies and the delight of all enemies, the House of Commons discussed the Supreme Court's and the prime minister's life-or-death dilemma during the chaos, tragedy, and crisis of World War II. Therefore, unless there is an extreme social need that justifies it, it is unethical to condemn the unheard. Therefore, in situations where a risky building must be demolished right away in order to save lives, a dangerous individual must be placed under arrest (Spelman, 1993). A pre-decisional hearing is not required in cases when a passport must be seized in the public interest.

(h) Exclusion in case of Routine Matters

A university student was expelled from the student body without a pre-decisional hearing because of poor academic performance. The Indian Supreme Court ruled that any right to a hearing seemed to be negated by the very nature of academic adjudication (Jawaharlal Nehru University vs B. S. Narwal, 1980). Therefore, if a qualified academic examines and assesses a student's work over time and concludes that it is lacking, the principles of natural justice may be ignored. Similar to this, the Supreme Court ruled that the commission had not followed natural justice principles when it chose to terminate the candidate's exam because he had broken the regulations by writing his roll number on each page of his response (Karnataka Public Service Commission vs B.M. Vijay Shankar, 1992). The court emphasized that disregarding the academic discipline's strict interpretation of the hearing norm would be detrimental to the societal sense of justice as well as the public interest. However, this exception does not apply when the academic body permits non-academic conditions or when disciplinary action is taken.

(i) Impracticability

The institution cancelled the entire M.B.A. entrance exam because of mass copying, and the court decided that it is not practical to notify and hear from every candidate in this case, which has reached national dimensions (R. Radhakrishnan vs Osmania University, 1974). As a result, the court permitted the deletion of natural justice principles due to their impracticability (R. Radhakrishnan vs Osmania University, 1974). The same view was also reached in *Bihar School Education Board vs. S.C. Sinha*, AIR 1970 SC 1269, where one would be tempted to conclude that the court has chosen "administrative convenience" and

"fairness" as separate criteria based on the judicial behaviour in this area. This highlights not only the fundamental flaw in judicial behaviour but also favours the inertia and laziness of the administration. As you may remember, on December 7, 1941, Japanese bombers attacked Pearl Harbor, bringing the United States into the Second World War. Thousands of people of Japanese heritage were to be sent to relocation camps on the west coast at that time. In his forceful dissent, Justice Stone expressed his unwillingness to concede that the administrative burden and inconvenience of holding individual loyalty hearings for the 12,000 parties involved could support the government's decision.

(j) Where no right of the Person is Infringed

When a right is derived from common law or when no one has been granted one by a statute, the natural justice concept does not apply. For instance, a discount may be taken away at any moment without giving anyone a chance to be heard (*Andhra Steel Corporation vs Andhra State Electricity Board*, 1991).

(k) Exclusion in case of Contractual Arrangement

The court ruled that when a contract is terminated in any contractual area, the natural justice standards do not apply. Terminating an agreement or arrangement does not include an obligation to act judicially because it is neither an administrative nor a quasi-judicial act (*State of Gujrat vs M.P. Shah Charitable trust*, 1994).

FINDINGS OF THE STUDY

(a) Implied Incorporation but No Explicit Mention

The concept of "natural justice" is not specifically mentioned in the Bangladesh Constitution, although its spirit and components are included in a number of its sections (such as Articles 33 and 135; Chowdhury, 2025). Concerns for due notice, fair hearing, and reasonable opportunity all essential elements of natural justice are reflected in these.

(b) Changing the Interpretation of the Law

In order to preserve natural justice, Bangladeshi courts have gradually interpreted statutory and constitutional principles. Even in the absence of clear statutory standards, landmark rulings (such as *Dhaka University vs. Zakir Ahmed*) uphold the necessity of maintaining procedural fairness.

(c) Application of natural justice beyond Judicial Bodies

In Bangladesh, administrative and quasi-judicial entities are also required to respect natural justice principles (Khanam, 2022). Natural justice has been extended to the executive branch by the judiciary's confirmation that due process must be followed in administrative decisions that affect civil rights.

(d) Two basic rules that are acknowledged and followed

Both case law and the spirit of the constitution acknowledge the fundamental ideas of *Nemo Judex in Causa Sua* (no one should be a judge in their own matter) and *Audi Alteram Partem* (right to be heard). These guidelines are essential for guaranteeing justice and impartiality in court cases.

(e) Natural Justice as a Check on State Authority

According to the study, natural justice acts as a restraint on the capricious use of state power. It encourages accountability and openness by providing citizens with protection from illegal or discriminatory administrative activities.

(f) There are some exceptions, but they are very few

Only under extraordinary and justified circumstances such as emergencies, legislative actions, or situations where impracticability is demonstrated (e.g., mass examination cancellations) is the absence of natural justice allowed. However, these exclusions must be read carefully and are subject to judicial review.

(g) Legal Representation must be recognized

The practical application of natural justice has been broadened by courts' recognition of circumstances in which legal counsel is crucial, particularly when dealing with intricate legal or factual issues, even though it is not a fundamental component of natural justice.

(h) Increasing Recognition of the Constitution

Natural justice is becoming more widely recognized as a constitutional duty in Bangladeshi courts, despite the fact that it is not officially established. The rule of law is being strengthened as the notion becomes more ingrained in legal reasoning.

(i) Implementation Gaps in Practise

Implementation is still uneven, even with legal and constitutional support. Authorities have failed to deliver due process in a number of cases, which suggests that institutional commitment, understanding, and training need to be improved.

(j) Natural Justice as a Vehicle for Protecting Rights

According to the study's findings, natural justice is an effective strategy for defending fundamental rights in Bangladesh. It contributes to the strengthening of democratic governance and the preservation of human dignity by promoting impartial adjudication and fair procedures.

RECOMMENDATIONS

In Bangladesh, the principles of natural justice are now constitutionally enhancing. The constitutional rules not only provide a set of norms according to which a state is governed, but also lay down norms of procedural fairness to limit the state power. Nonetheless, the supervisor will find some recommendations by which the doctrine of natural justice will perform accordingly by the state agencies. These are as follows:

(a) Recognition by the Constitution

Depending only on the implied allusions in Articles 33 and 135 of the Constitution, amend it to specifically state the natural justice principles (*Audi Alteram Partem* and *Nemo Judex in Causa Sua*). Stronger legal enforceability and lucid judicial and administrative interpretations will result from this.

(b) Administrative Law Codification

Laws and regulations pertaining to administrative procedures should clearly incorporate the principles of natural justice (Mullan, 1975). Require public institutions and statutory authorities to adhere to due process in all decisions that impact people's rights, interests, or

liberties, particularly in the areas of employment, licensing, education, and disciplinary measures.

(c) Public Official Training and Capacity Building

Create and execute required training courses on the value and use of natural justice for government representatives, tribunal members, and administrative personnel. Stress the right to a fair hearing, impartial decision-making, and procedural justice.

(d) Strengthen Judicial Supervision

Even in cases where statutes are silent, encourage courts to regularly examine administrative acts for violations of natural justice. Provide unique court standards for spotting and resolving procedural justice violations.

(e) Unambiguous Rules for Legal Counsel

Establish consistent standards for permitting legal representation in administrative processes, especially where those hearings include high stakes, complexity, or technical issues. Issue orders from the government or courts confirming that it may be against natural justice principles to deny legal representation in specific situations (such as disciplinary hearings or license revocations).

(f) Implement Laws to Limit Exceptions

Use legislation with a limited interpretation and judicial review procedures to codify the acceptable deviations to natural justice (such as crises and legislative actions). Require documented explanations and *post-facto* evaluations in situations when "impracticality" or "emergency" excuses are misused.

(g) Access to Justice and Public Awareness

Promote public education initiatives regarding citizens' rights to notice, fair hearings, and impartial judgment. Provide legal aid services or an ombudsman to citizens who are facing procedural injustice from administrative agencies.

(h) Monitoring and Evaluation Mechanisms

Create an impartial oversight organization (such as an Administrative Justice Authority or Natural Justice Commission) to keep an eye on state institutions' adherence to procedural justice. Report on the degree to which different government agencies adhere to natural justice principles and conduct routine audits.

(i) Include Natural Justice in Academic Programs

Highly intensive course curriculum of natural justice area must be included in the curriculum of law schools in Bangladesh. In addition to that proper training must be given to the related stakeholders in Bangladesh.

(j) Consolidation of Judicial Precedents

The state should initiate to have a comprehensive database to have all the courts, tribunals decision on the particular issue of natural justice for the better interpretation and application of the term of natural justice.

CONCLUSION

The analysis demonstrates that while the Bangladeshi Constitution does not specifically mention the natural justice precepts of *nemo judex in causa sua* and *audi alteram partem*, they are strongly ingrained in its spirit and jurisprudential interpretation, acting as vital protections against capricious judicial and administrative actions. Due to procedural uncertainties, a lack of institutional understanding, and statutory gaps, effective implementation of these laws remains inconsistent despite considerable court attempts to expand their application beyond administrative, quasi-judicial, and even non-judicial domains. According to the study, this disparity poses a significant threat to both the preservation of individual rights and procedural justice. In order to guarantee that natural justice is a uniformly implemented legal standard at all governmental levels and not just a theoretical theory, it urges constitutional reforms, statute codification, institutional reforms, and public education. To strengthen accountability, equity, and the rule of law in Bangladesh's changing democratic environment, adherence to these principles must be strengthened. As Epicurus has rightly coined that-

Natural justice is a compact resulting from expediency by which men seek to prevent one man from injuring others and to protect him from being injured by them. -Epicurus

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Viewing Preferences and Perceptions Towards Drama in Private TV Channels: Insights from Audiences of Mymensingh Division in Bangladesh

Jillur Rahaman Paul¹

ABSTRACT

Television drama is considered as one of the most popular genres in media production. In BTV era, many popular TV dramas increased viewers' engagement. In private TV channel era, started in 1997, TV drama has been continuing its top position. Keeping this in mind, the study has investigated the viewing preferences and perceptions from audiences' viewpoint using questionnaire survey, FGD and IDI on 384 viewers of Mymensingh administrative division. Both male and female audiences have been taken by using convenient sampling technique. The study found that 50% of the respondents liked TV drama. The majority of the respondents (40.6%) opined that drama viewing frequency is decreasing. Interestingly 82.5% of the respondents mentioned the TV drama maintains standard. The perceptions were determined through 19 sub-factors in six factors such as storytelling, quality acting, entertainment, costume, appropriate set and quality airing. The findings from FGDs indicate that the viewers prefer TV drama but they are concern about maintaining the quality. In responses to 19 sub-factors, many respondents have shown negative and neutral attitude. However, viewers' preferences, mind set and attitudes have indicated the situation as somehow positive. According to the majority of respondents, perception on TV drama is not entirely satisfactory. Considering the findings, the producers, content creators should come forward to improve in storytelling, acting & casting, entertainment, makeup & costume, set & art direction and quality airing. The producers could also make TV drama of local dialect maintaining its quality.

JEL Classifications: D83

Keywords: Preferences, perceptions, private TV channel drama, audiences, storytelling

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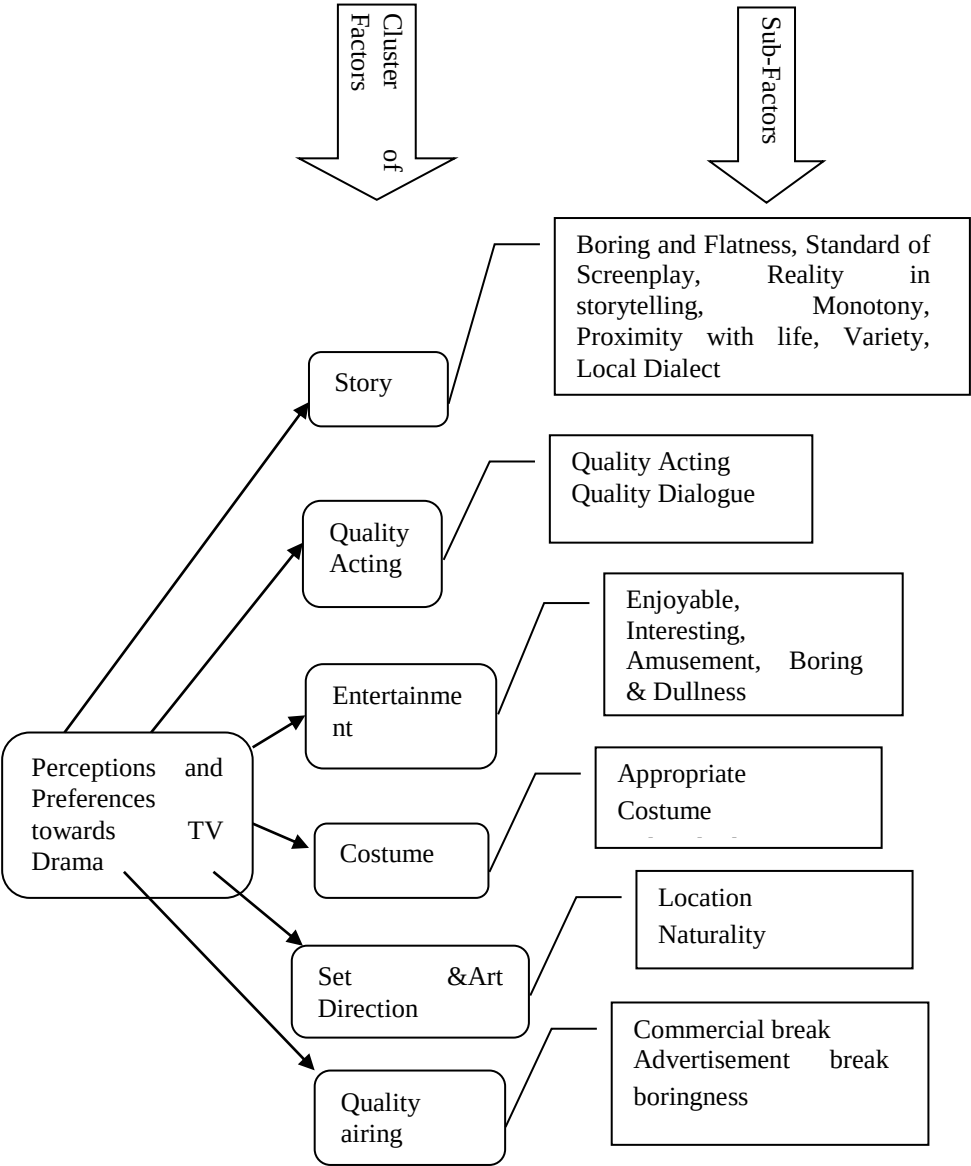
INTRODUCTION

Television, as an integral part of mass media is a popular medium in Bangladesh. It is the most popular medium (Rahman, 2012). The role of television to the society is to inform, educate, entertain and persuade. To perform its role to the society, television broadcasts different programs like news, views, documentary, daily soap, tele-film, drama, sports event, talk-show, cinema, advertisements, musical program, reality show, games show, cooking program etc. In a survey, majority of the young people considered drama as the most popular TV program (Rahman, 2019). Since the independence, Bangladeshi viewers, even in the rural areas had only access to the state-owned Bangladesh Television (BTV) until the private TV channel started functioning in 1997. As of 2023, a total of 39 private TV channels were on-air (GOB, 2023). It is assumed that a large number of viewers have been attached with private TV channels as entertainment media. In BTV era, among all the programs, drama has been able to take a special place in the viewers' mind because of some classic, standard and quality drama. In 1985 family drama *Ei Shob Din Ratri* was so popular that during its screening the bustling streets of Dhaka used to be empty (Azad, n.d.). In 2000s, the dominant producer of drama of the private TV channels has been influencing millions of viewers daily (DW Akademie, 2020). But the viewers and the critiques have raised questions in quality of drama. The standard, storytelling, scripting, acting, casting, set designing, art direction, picture quality etc. have not been maintained in TV drama with same pace. So, viewer's preference and perception have shifted. Understanding preference and perception shows the content types of drawing mass attention and thinking about dramas that shaping morality, lifestyle and affecting cultural output and social disclosure. Since TV dramas have important far-reaching impact on culture, norms, values and entertainment, therefore studying preferences and perceptions of private TV Channels' drama is crucial. The data driven insights would help concerned understand and manage cultural and social issues of mass media including TV.

CONCEPTUAL FRAMEWORK

According to the *Encyclopedia Britannica* (2024) perception is the process of sensory simulation that is translated into organized experiences in order to represent and understand the environment shaped by the recipient's learning, memory, expectation, and attention. Preference means a choice, priority, liking, desire, favor of one option from alternatives. However, the concept of perception of TV drama has been developed in the way where thinking of reception, construction, understanding on different TV drama issues is included (Ashrafi, 2017):

FIGURE 1. CLARIFYING CONCEPT



Source: Author's construct, 2025

OBJECTIVE OF THE STUDY

The objective of the study is to analyze comprehensively the preferences and perceptions towards TV drama of private channels of Bangladesh in the eye of the audiences of Mymensingh division.

REVIEW OF LITERATURES

Nekmahmud et al. (2016) investigated the audience attitude towards satellite TV programs and advertising in Bangladesh and also examined the program preference. The results indicated that 90.9% of audiences watched private satellite TV channels. Thirty-six Per cent of audiences were more preferred watching news and drama in Bangladeshi TV channels. Ashrafi (2017) conducted a study aim to specify the factors affecting the viewers' attitude towards BTV. The affecting factors are entertainment, technology, information and program. The analysis showed that 20 of the independent variables influence the dependent variable. From the regression analysis, the independent variables have 93% impact over the dependent variable, the perception towards BTV. Islam et al. (2017) examined the television viewing habits of Bangladeshi and Indian soaps and its attraction among rural-urban and female-male audiences of Chattogram. It identified the immense popularity of Indian soaps in Bangladesh especially among women. Findings showed that 81% of the female respondents watched soaps. Seventy-six Per cent of the male respondents opined that female members of their families were attracted to Indian soaps. Helal (2014) also found Indian TV serial are immensely popular in Bangladesh. Tarannum & Siddiqua (2024) revealed in preferring entertainment content Indian serials fulfil social and gratification needs more to young Bangladeshi viewers. Kohinur (2016) mentioned TV as medium of information for social change in Bangladesh. Findings suggest that television acts as a powerful agent for modernization and empowerment in rural communities. The research concludes that greater access to television can bridge social and educational gaps in rural Bangladesh. Islam (2024) found that viewers prefer local dramas those are culturally relevance. Simultaneously viewers criticize about simple plots and weak production. To get audience satisfaction more, better technical quality and attractive storytelling are required so far.

THEORETICAL FRAMEWORK

Cultural proximity and reception theory are base of the study. Cultural proximity theory, proposed by Joseph Straubhaar in 1991, mainly talked about viewers' preference on media content and its influencing factor. He mentioned that culturally familiar media contents are more preferable by the audiences. This familiarity could be in language, values, norms, social contexts (Straubhaar, 1991). The relation of this theory is that Bangladeshi viewers often perceive local TV dramas more positively having familiar lifestyles, social issues, humor, and dialects. According to reception theory by Stuart Hall (1972) the understanding of media messages and its process depend upon social and cultural context, experiences, social positions. Therefore, younger and older audiences have shown sharp difference on understanding the same drama or media contents. For example, one group of audiences might be seen TV drama as progressive and conservative by another.

METHODOLOGY

A social survey method has been applied to conduct the study. The locale of the study was Mymensingh administrative division. Questionnaire survey, FGD (Focus Group Discussion) and IDI (In-depth Interview) were applied to collect primary data. Five-point rating scale was formed and analysed accordingly. Furthermore, books, journals, websites, newspaper etc. are considered as secondary sources.

Sampling and Determination of Sample Size

All TV drama viewers of private TV channels living in Mymensingh administrative division are considered as population. To draw the sample, the applied formula is:

$$n = \frac{z^2 pq}{e^2}$$

Where, n= sample size, p= sample proportion = 0.5, q=1 - p= 1-0.5 = 0.5, z = 1.96 (95% confidence level of nominal curve worked out from table) e = error = 0.05 (error of 95% of confidence level). By calculation the total size of population is fixed on 384 (Kothari, 2003). The sample size of each study area of four districts has taken equally like 384/4=96. From each district, one Upazila was selected randomly through lottery process. In this way, four Upazilas viz. Sadar, Mymensingh; Sadar, Jamalpur; Jhinaigati, Sherpur; and Barhatta, Netrokona have been found. The viewers are stratified into mainly two strata viz. male and female. A total of 96 respondents has been selected from every Upazila and strata conveniently.

Data Analysis and Presentation

Collected data has been tabulated and analysed through IBM SPSS 25 version software. Percentage for analysis and graph, chart, table etc. are used to present analysed data.

DATA ANALYSIS AND DISCUSSION

Socio-economic Profile

As demographic outline of the viewers, the study has covered age limit of 15 to 75 years. Almost 40% of the respondents has fallen into 15-25 years' age group. Majority of the respondents are male (67.4%) while 32.6% are female. Regarding occupational status, service holders to day labourers were included. But students were dominated which is 29.4%. It was also found that primary to only literate respondents were included where majority (26%) are BA/Equivalent degree holders. So, a variety of socio-economic status is reflected.

Preferences of TV Drama

Habit of Viewing TV Drama

The distribution on private TV channel drama viewing indicates almost half of the total respondents viewed drama on regular basis (47.1%) and the rest (52.9%) watched irregularly. It reflects that private TV channels drama still grasps significant audience interest.

TABLE 1. DISTRIBUTION OF HABIT OF VIEWING TV DRAMA

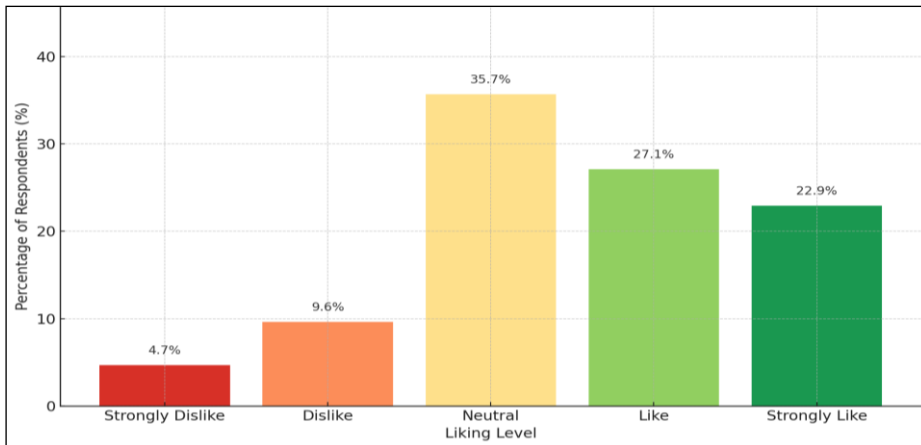
Types of Habit	Frequency	Per cent
Regular	181	47.1
Irregular	203	52.9
Total	384	100.0

Source: Field Survey, 2025

Liking of TV Drama

Viewers like private TV channels' drama in different scale. The findings indicate that 50% of the respondents like TV drama as 'like (27.1%)', 'strongly like (22.9%)' and 35.7% show neutral. Only 14.3% dislike. The findings depict that the viewers prefer private TV channels' drama still now. But a large number of viewers neutral means reluctant.

FIGURE 2. PREFERENCE OF PRIVATE TV CHANNEL DRAMA



Source: Field Survey, 2025

Daily Time Spent for Viewing TV Drama

Viewers engage their time for watching TV drama every day. The findings show that 62% of the respondents spend less than one hour per day. It means they are light viewers. The findings mean that heavy viewers are not prominent for enjoying the private TV channels' drama.

TABLE 2. TIME SPENT TO WATCH TV DRAMA

Daily Time Spent	Frequency	%
Less than half an hour	120	31.3
Less than one hour	118	30.7
In between 1-2 hours	76	19.8
In between 2-3 hours	22	5.7
More than 3 hours	48	12.5
Total	384	100.0

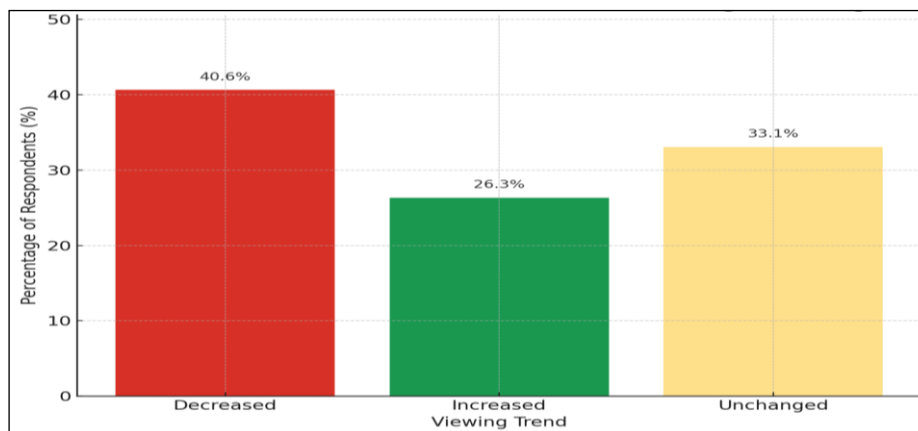
Source: Field Survey, 2025

Current Status of Viewing TV Drama

The majority of the respondents (40.6%) thought that the private TV channels' drama viewing has been in decreasing trend since only 26.3% of the respondent mentioned viewing is increasing. Another 33.1% mentioned unchanged.

Once we enjoyed TV drama more. Now viewers have alternatives due to mobile phones and social media. But we think it is still relevant for local viewers like us (IDI, Participant 4, 06 December 2025).

FIGURE 3. CURRENT SITUATION OF VIEWING TV DRAMA

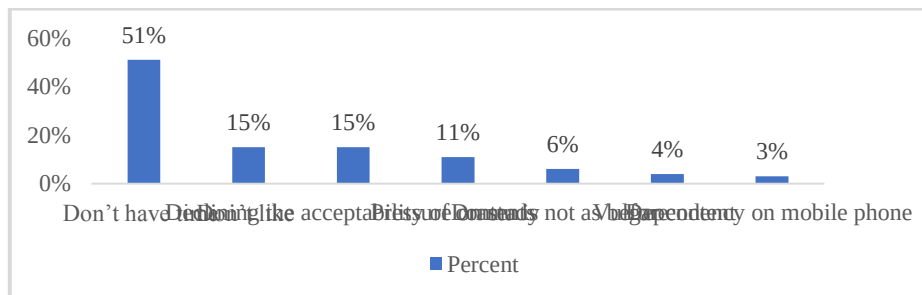


Source: Field Survey, 2025

Causes of Decreasing of Drama Viewing

The respondents identified some reasons for decreasing TV drama viewing. The findings reveal that the main cause is lack of enough time (51%) which hints that the viewers have other priorities in their daily life. A considerable portion also mentioned dissatisfaction with contents such as declining acceptability (15%), disliking (15%) and vulgar content (4%). Furthermore, study pressure (11%) and busy with mobile phone (3%) contribute to decrease the viewership of TV drama.

FIGURE 4. DISTRIBUTION OF CAUSES OF DECREASING DRAMA VIEWING



Source: Field Survey, 2025; Multiple responses, $n = 156$

Quality of TV Drama

Majority of the respondents (82.5%) mentioned the quality of private TV channels' drama as standard (40.1%), moderately (38%) and highly standard (4.4%). On the other hand, only 17.4% considered the TV drama quality substandard or less.

Drama quality is being tried to maintain but not having full satisfaction. Some are good and some are not. Still, we enjoy. We had strong affection towards TV drama. Viewers are now engaged with alternative sources of entertainment. Quality should be improved as per audience preferences (FGD-1, P-02, 21 November 2025).

TABLE 3. QUALITY OF PRIVATE TV CHANNEL DRAMA

Opinion	Frequency	Per cent
Sub-standard	25	6.5
Less quality	42	10.9
Moderately	146	38.0
Standard	154	40.1
Highly Standard	17	4.4
Total	384	100.0

Source: Field Survey, 2025

Much Desired Elements in TV Drama

Viewers while watching TV drama search many things. Majority of the respondents (43%) hunted quality story while novelty is mentioned by 18.8% and quality acting and entertainment are mentioned by 16.1% and 15.9% respectively. The findings indicate that the drama viewers still desire quality story.

TABLE 4. MUCH WANTED ELEMENT DURING WATCHING

Much Wanted Elements	Frequency	Per cent
Novelty	72	18.8
Quality Story	165	43.0
Quality Acting	62	16.1
Entertainment	61	15.9
Proper Direction	24	6.3
Total	384	100.0

Source: Field Survey, 2025

Perceptions towards TV Drama

Story

Boring and Flatness of Story

Story is one of the influential factors to view. The story differentiates the viewer's rating. The story of private TV channels' drama is found monotony and flat. The majority of the respondents (43.5%) agreed that the story of drama is boring and flat and 38.3% found as interesting and enjoyable.

Story is the heart of drama. I love story of real life. Most stories of drama are similar style- love, affection, urban-focused, irrelevant comedy etc. Even storytelling is being flat and casual. Sometimes I feel uninterested and change channel (IDI, Participant 6, 29 November 2025).

TABLE 5. BORING & FLATNESS OF STORY

Opinion	Frequency	Per cent
Highly Disagreed	13	3.4
Disagreed	134	34.9
Neutral	70	18.2
Agreed	144	37.5
Highly Agreed	23	6.0
Total	384	100.0

Source: Field Survey, 2025

Standard of Script

The standard script inspires audiences. The respondents were asked whether the standard of script of drama is maintained or not. In response, a significant portion (40.1%) were agreed while 39.8% disagreed. Rest of the respondents (20.1%) were remained impartial. This leans slightly negative notion which indicates the standard of script has not been being maintained.

TABLE 6. STANDARDNESS OF TV DRAMA SCRIPT

Opinion	Frequency	Per cent
Highly Disagreed	10	2.6
Disagreed	143	37.2
Neutral	77	20.1
Agreed	137	35.7
Highly Agreed	17	4.4
Total	384	100.0

Source: Field Survey, 2025

Storytelling

Realistic and quality story attract more viewers. Simultaneously it increases TV rating. The respondents were asked whether storytelling is out of reality. About 45.1% of the respondents disagreed. It means that the storytelling maintains reality. This portion may view storytelling as grounded in real-life experiences, emotions, or truths. But 35.1% agreed that the storytelling is out of reality and 19.8% are neutral.

TABLE 7. STORYTELLING WHETHER OUT OF REALITY

Opinion	Frequency	Per cent
Strongly Disagreed	24	6.3
Disagreed	149	38.8
Neutral	76	19.8
Agreed	105	27.3
Highly Agreed	30	7.8
Total	384	100.0

Source: Field Survey, 2025

Monotonousness

Private TV channels' drama is somehow monotonous. Earlier it was heart-touching, but not now. A significant portion of the respondents (43.2%) agreed that the TV drama is monotonous. This indicates the viewers are not enjoying rather reluctant towards watching drama. On the other hand, 36.2% have felt that the drama is not monotonous at all.

I still enjoy TV drama. But my feelings are mixed- sometimes I enjoy and sometimes I don't. My expectation is live story, real life story in drama (IDI, Participant 9, 28 November 2025).

TABLE 8. MONOTONOUSNESS OF TV DRAMA

Opinion	Frequency	Per cent
Strongly Disagreed	4	1.0
Disagreed	135	35.2
Neutral	79	20.6
Agreed	131	34.1
Strongly Agreed	35	9.1
Total	384	100.0

Source: Field Survey, 2025

Drama Story away from Life

Real life story is more attractive to view. The respondents were asked whether the drama story is far from human life or not. The majority of the respondents (47.4%) expressed that the TV drama story is associated with human life. It means that viewers are pleased to see drama story is involved with human life. On the contrary, 31.5% thought that the current TV drama story is far from actual human life. Moreover, 21.1% are found impartial. The viewers' overall perception leans TV drama as image of human life but there is also a significant portion being confused and questioned on pragmatism of drama story.

TABLE 9. TV DRAMA STORY WHETHER FAR FROM HUMAN LIFE

Opinion	Frequency	Per cent
Strongly Disagreed	14	3.6
Disagreed	168	43.8
Neutral	81	21.1
Agreed	101	26.3
Strongly Agreed	20	5.2
Total	384	100.0

Source: Field Survey, 2025

Diversity

Diversity requires for any TV show. Variety keeps viewers attached to TV channel. In regard to having diversity in TV drama, a significant portion of the respondents (36.4%) have agreed that TV drama is not diversified at all. But almost same portions (37%) found diversity. Again, notable portions (26.6%) were neutral. Since there is no full consensus, but

a slightly lean toward presence some diversity and a high neutral rate, recommends the need for further diversity such as cultural, socio-economic, ethic, gender, realism etc.

I think diversity is essential in the story of TV drama. Everything is seen as similar types; variety is missing in TV drama. Very few private TV channels have shown to make variety in drama story. Our history, heritage and cultural diversity should be given priority in drama making (IDI, Participant 7, 29 November 2025).

TABLE 10. TV DRAMA WHETHER HAVING DIVERSITY

Opinion	Frequency	Per cent
Strongly Disagreed	7	1.8
Disagreed	135	35.2
Neutral	102	26.6
Agreed	115	29.9
Strongly Agreed	25	6.5
Total	384	100.0

Source: Field Survey, 2025

Local Dialect based TV Drama

In Bangladesh, there is a strong trend to produce local dialect-based TV drama. Private TV channels are the pioneers in this regard. Majority of the respondents (78.4%) expressed very much satisfied with the drama having local language dialogue. This may reflect cultural connection, authenticity, relatability, or novelty associated with the use of local dialects in drama.

We love local language-based drama more. We enjoy the dramas of local dialects of Pabna, Mymensingh, Rajshahi, Noakhali and even old Dhaka. Salhuddin Lavlu, Fazlur Rahman Babu, Chanchal Chowdhuri, Mosharaf Karim, Jahid Hasan and others are favorite to us. *Mymensingher Pola*, a Meymensingh local language-based drama is mentioned by one the of participants of FGD in Barhatta, Netrokona (FGD-2, P-10, 22 November 2025).

TABLE 11. OPINION ON LOCAL DIALECT BASED TV DRAMA

Opinion	Frequency	Per cent
Strongly Disagreed	7	1.8
Disagreed	55	14.3
Neutral	21	5.5
Agreed	154	40.1
Strongly Agreed	147	38.3
Total	384	100.0

Source: Field Survey, 2025

Acting

Quality Acting

Acting is an important part of TV drama production. As per findings, majority of the respondents (44%) expressed that TV drama acting maintains the standard. They are

comfortable and satisfied with the acting of the different casts. But significant portions (30.8%) opined that the standard of acting in drama has not been maintaining while 25.3% remain neutral.

Experienced actors and actresses viz. Abul Hayat, Mamunur Rashid, Afzal Hossain, Suborna Mustafa, Dolly Zahur and others are still able to attract audiences with their quality acting. Dialogue pitching is attractive. Now overacting, ordinariness and exaggeration etc. can be found in many dramas (IDI, Participant 8, 06 December 2025).

TABLE 12. OPINION ON ACTING

Opinion	Frequency	Per cent
Strongly Disagreed	14	3.6
Disagreed	155	40.4
Neutral	97	25.3
Agreed	102	26.6
Strongly Agreed	16	4.2
Total	384	100.0

Source: Field Survey, 2025

Dialogue

Dialogue is the art of reflection of whole story and character. People love to enjoy dialogue and get pleasure. The respondents were asked whether TV drama dialogue is weak. Almost same portion of respondents agreed (36.2%) and disagreed (40.1%) while 23.7% were neutral. As slightly lean towards satisfaction with dialogue but still need to focus on improvement.

TABLE 13. OPINION ON WEAKNESS OF DIALOGUE

Opinion	Frequency	Per cent
Strongly Disagreed	5	1.3
Disagreed	149	38.8
Neutral	91	23.7
Agreed	119	31.0
Strongly Agreed	20	5.2
Total	384	100.0

Source: Field Survey, 2025

Entertainment

Enjoyable

Drama entertains people. In response to enjoyment, majority of the respondents (47.4%) expressed that they enjoyed TV drama while 32.3% didn't enjoy and 20.3% showed neutral who were still undecided. Combinedly two groups, a sizable portion of respondents, the drama of private TV channel doesn't show the universal taste.

TABLE 14. OPINION WHETHER TV DRAMA ENJOYABLE

Opinion	Frequency	Per cent
Strongly Disagreed	11	2.9
Disagreed	171	44.5
Neutral	78	20.3
Agreed	96	25.0
Strongly Agreed	28	7.3
Total	384	100.0

Source: Field Survey, 2025

Attractiveness

It is popularly saying that the attractiveness of private TV channels has been going down day by day. But majority of the respondents (46.4%) opined that drama has attracted them. This group has positive notion towards drama. But 30.7% expressed that drama has not been attracting them while 22.9% showed neutral.

TABLE 15. OPINION ON WHETHER TV DRAMA ATTRACTING

Opinion	Frequency	Per cent
Strongly Disagreed	8	2.1
Disagreed	170	44.3
Neutral	88	22.9
Agreed	96	25.0
Strongly Agreed	22	5.7
Total	384	100.0

Source: Field Survey, 2025

Entertaining

Drama entertains the viewers. In response to non-entertaining, majority of the respondents (53.4%) mentioned that TV drama has been entertaining them. They got amusements, recreation and pleasure. On the other hand, 24.7% weren't entertained while neutral portions were found 21.9%. The general trend leans a bit positive since most viewers are entertained. Since a quarter of the respondents are disagreed and notable portions are neutral, so there is a room for improvement towards audience preferences.

I watch drama only for entertainment. I am not fully satisfied. I think improvement is needed. We like drama of having fun, entertainment, real life story, culturally associated story etc. We want to enjoy drama (IDI, Participant 2, 05 December 2025).

TABLE 16. OPINION ON TV DRAMA IS NOT ENTERTAINING

Opinion	Frequency	Per cent
Strongly Disagreed	13	3.4
Disagreed	192	50.0
Neutral	84	21.9
Agreed	83	21.6
Strongly Agreed	12	3.1

Total 384 100.0

Source: Field Survey, 2025

Boring & Dullness

The respondents were asked whether TV drama is dull. In responses, majority of the respondents (40.9%) agreed that private TV drama is dull. They found TV dramas are unengaging or uninteresting. On the other hand, 32.9% still have found TV dramas at least not dull while 26.3% were neutral. So, the overall findings indicate the leaning towards dullness of TV drama, but the viewers were fairly split. Innovation in drama contents is needed to provide diversity in audience preferences.

TABLE 17. BORING & DULLNESS OF TV DRAMA

Opinion	Frequency	Per cent
Strongly Disagreed	6	1.6
Disagreed	120	31.3
Neutral	101	26.3
Agreed	127	33.1
Strongly Agreed	30	7.8
Total	384	100.0

Source: Field Survey, 2025

Costume

Appropriate Costume

Costume expresses the characters of drama. Its design, colour, texture etc. influence the characters and story. Majority of the respondents (45.3%) agreed that the costume is appropriate with characters. They did not find any flaws and faults in costume. On the other hand, significant portions (32.1%) opined that the costume was not suitable with the characters. Another 22.7% were neutral. The data reflects the moderate approval for how costumes fit to the characters.

TABLE 18. OPINION ON APPROPRIATENESS OF COSTUME

Opinion	Frequency	Per cent
Strongly Disagreed	39	10.2
Disagreed	84	21.9
Neutral	87	22.7
Agreed	163	42.4
Strongly Agreed	11	2.9
Total	384	100.0

Source: Field Survey, 2025

Costume Consistency with Culture

Costume reflects the culture. The findings indicate that majority of the respondents (46.1%) agreed costume consistency with culture while 28.2% expressed the costume is not suitable with our culture. Notable portions (25.8%) were found as neutral. The findings illustrate that a significant portion (54%) either disagreed or remained neutral, indicate the scope for enhancing cultural authenticity.

Dress has been changing in drama. Modern and urban styles are dominating in dress selection. Sometimes it doesn't reflect our culture. Culturally consistent dress makes drama attractive and elegant (IDI, Participant 1, 05 December 2025).

TABLE 19. OPINION ON COSTUME CONSISTENCY

Opinion	Frequency	Per cent
Strongly Disagreed	29	7.6
Disagreed	79	20.6
Neutral	99	25.8
Agreed	169	44.0
Strongly Agreed	8	2.1
Total	384	100.0

Source: Field Survey, 2025

Set and Art Direction

Location

Location must be selected according to the script. In response to the appropriateness of location, majority of the respondents (48.4%) mentioned that the location is found as per the story. Another portion (14.9%) disagreed while a significant part of the respondents (36.7%) was found neutral.

TABLE 20. OPINION ON LOCATION ACCORDING TO STORY

Opinion	Frequency	Per cent
Strongly Disagreed	8	2.1
Disagreed	49	12.8
Neutral	141	36.7
Agreed	179	46.6
Strongly Agreed	7	1.8
Total	384	100.0

Source: Field Survey, 2025

Set Telling the Story

Appropriate set helps understand the story. As per study findings majority of the respondents (48.1%) agreed that the set tells the story. They had clear understanding on it. The significant issue is that a sizable portion found neutral (38.3%). Moreover, 13.5% thought that the set is not in line with story focus.

TABLE 21. OPINION ON SET TELLS THE STORY

Opinion	Frequency	Per cent
Strongly Disagreed	12	3.1
Disagreed	40	10.4
Neutral	147	38.3
Agreed	176	45.8
Strongly Agreed	9	2.3
Total	384	100.0

Source: Field Survey, 2025

Quality Airing

Advertisement Interval while Airing Drama

Advertisement interval has been severely criticized by the viewers. A prominent 94% of respondents mentioned that TV commercial intervals are too lengthy which indicates strong area of dissatisfaction among viewers.

TABLE 22. OPINION ON TV ADVERTISEMENT INTERVAL

Opinion	Frequency	Per cent
Strongly Disagreed	1	.3
Disagreed	6	1.6
Neutral	16	4.2
Agreed	116	30.2
Strongly Agreed	245	63.8
Total	384	100.0

Source: Field Survey, 2025

Advertisement Break Boringness

Majority of the respondents (94.3%) felt boring this commercial break. The findings indicate that the boringness makes this a critical issue. Broadcasting strategies, viewer-oriented ad formats and contents required significant improvement to hold attention of viewers.

I feel bored in advertising break and it is a bit torcher to me. It hinders to enjoy. Frequently I used to switch over channels while advertisement on screen (IDI, Participant 3, 05 December 2025).

TABLE 23. OPINION ON TV ADVERTISEMENT BREAK' BORINGNESS

Opinion	Frequency	Per cent
Strongly Disagreed	3	.8
Disagreed	5	1.3
Neutral	14	3.6
Agreed	68	17.7
Strongly Agreed	294	76.6
Total	384	100.0

Source: Field Survey, 2025

MAJOR FINDINGS

The study has explored the preferences and perceptions of drama of private TV channels in Bangladesh. While all the respondents view TV drama, irregular viewers (52.9%) watch more than regular viewers. Fifty Per cent of the respondents prefer TV drama and 35.7% are neutral. The viewers enjoy TV drama, but they are light viewers since 62% of the respondents spent less than one hour daily.

I don't have enough time to enjoy TV drama. I don't find pleasure more rather I spent more time in social media. Occasionally, I watch TV drama for entertainment. I prefer quality story to enjoy (IDI, Participant 11, 06 December 2025).

The findings suggest that the viewer's involvements have significantly declined (40.6%), but interestingly 82.5% of the respondents mentioned that the quality of TV drama is standard (40.1% standard, 38% moderately standard and 4.4% highly standard). So, according to reception theory, preferences vary among the viewers and cultural proximity theory influences on local contents to prefer more. One young female respondent from Barhatta, Netrokona opined,

I like TV drama that story is close to me, my local culture and language. It attaches me more and I feel pleasure. Netrokona is rich in local culture of *pala gan*, the folk drama. I love to see it (IDI, Participant 10, 22 November 2025).

Viewers always search for quality story (43%). Entertainment is considered as the main cause to watch TV drama (37%). Regarding preferences, it is clear that private TV channels' drama is still relevant among the viewers.

TV drama is the oldest program we enjoy. Once we think TV means news at 8 pm and drama series. Traditional family story was dominated, but not now. Though dialog, set, costume have been changed, but we feel TV drama as our own program still now (IDI, Participant 5, 06 December 2025).

The analyses of perception are done on six factors having 19 sub-factors. Among 19, the majority of the respondents have shown positive responses towards 14 sub-factors. These are 'TV story out of reality', 'story away from real life', 'liking of local dialect-based drama', 'quality acting', 'dialogue', 'enjoyable', 'attractiveness', 'entertaining', 'appropriate costume', 'costume as per culture', 'location', 'set telling the story', 'commercial break during airing' and 'boringness of commercial break'. Among sub-factors like unrealistic story, away from life, local dialect drama liking, acting, dialogue, costume, location etc. are closer according to cultural proximity theory so that viewers have shown positive responses. Moreover, it is important to notify that among these 14 sub-factors, only 04 sub-factors have responses more than 50% separately. If majority responses are considered, the findings indicate alarming for TV drama industry. Because other 10 sub-factors along with 05 negative perceived sub-factors ('boring and flatness of story', 'less quality of script', 'monotonous', 'lack of diversity', and 'dullness to enjoy') responses are more than 50% individually. It means the perception leans towards negative. Therefore, it can be said that the existing perception of private TV channels' drama from viewers' perspective is not up-to the marked, rather it suggests a huge improvement scope for the producers, content writers, creators and other concerned.

Two FGDs' major findings are shown below:

FGD-1: Zainul Park, Mymensingh Sadar, 21 November 2025, 11:00 am to 12:15 pm., 11 viewers participated, 4 females and 7 males.

Theme-1: Causes of Drama Viewing

Entertainment is the one of the majors causes for viewing TV drama. They search good story-based drama where real-life experiences would be focused. They also like local dialect drama and mentioned the name of some famous actors like Chanchal Chowdhuri, Mosarraf Karim.

“I love to watch funny TV drama of local language. It gives me more pleasure. But TV drama is not appealing me as before” (FGD-1, P8).

Theme- Perception on TV Drama

Once TV drama was most attractive program. “I still remember the starting time of Ekushey TV when TV drama was a real appealing program, we felt” (P4). The standard has been lessening gradually. Now lot of private TV channels having a number of dramas have been telecasting daily, but only a few is considered popular. Improvement is required.

FGD-2: Monas, Barhatta, Netrokona, 22 November 2025, 2:00 pm to 3:00 pm., 10 viewers participated, 5 females and 5 males.

Theme- Causes of TV Drama Viewing

The viewers like private TV channels’ drama due to pass their leisure. TV drama is one of the major entertaining programs in family. It can be enjoyed together with family. It entertains and gives fun, especially local dialect TV drama. The drama story gives them pleasure. Watching TV drama has become their habit.

“I have been watching TV drama since BTV era while I was about 10 years of age. We don’t have TV set, but I used to go to my neighbour’s house almost every night to enjoy drama series of BTV. Now I am enjoying private TV drama and it turns into a habit” (FGD-2, P2).

Theme- Perception on TV drama

TV drama is very popular program. Viewers were accustomed with TV drama in BTV era. In early stage of private TV channel, TV drama has maintained quality and standard. But gradually quantity of drama has been increasing side by side the quality has been decreasing except few during celebration of festivals.

“We had strong feelings to BTV drama. Viewing drama was our enormous source of joy and pleasure. Now-a-days, the quality of private TV drama is decreasing. Necessary steps could be taken to maintaining quality” (P7).

LIMITATIONS

Only Mymensingh division is considered for study, not the entire country. Applying simple random sampling, more FGDs and constructing composite scale, the study would be more scientific. Using only Likert-scale could be another limitation of analysis.

CONCLUSION

Television is the powerful mass medium in the world. It has two sides- audio and visual which make the medium stronger and influential to its audiences. Before entering into private TV channel era, BTV's one of the popular genres was drama. When first private TV channel in Bangladesh, ATN Bangla started in 1997, daily drama has been keeping top program in private channel. The trend has also been continuing in all the private TV channels. But it has been losing its quality compare to early stage. The analyses and discussions have explored the mixed situation of private TV channels' drama. The viewers' preferences, mind set and their attitudes have identified that situation of TV drama is leaning a bit positive considering the opinion of majority of the respondents but not smooth. The size of majority in the most cases is below 50% indicating a considerable size of respondents holds either negative insights or neutral. Some findings are found not favourable for the producers or content creators. Another alarming finding is that the time engaged daily is not sufficient for viewing TV drama rather they became light viewers. Apart from these, 19 sub-factors viz. storytelling, quality acting, entertainment, costume, appropriate set and quality airing have clear influences on perception and preferences of viewers. A significant portion of respondents has shown the disagreed or negative attitudes and neutral in responses of 19 sub-factors. This means, in the eye of viewers, the situation of existing private TV channels' drama is not so satisfactory at all. It indicates the opportunity to improvement. Otherwise, the viewers' satisfaction would decrease day by day.

Recommendations

On the basis of findings, the following suggestions are made:

- a) The producer, content creator, and concerned should consider the findings and thrive for continuous improvement in storytelling, acting & casting, entertainment, makeup & costume, set & art direction and quality airing.
- b) Local dialect-based drama should be made more in numbers not compromising the quality and standard of the culture.

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Traditional Ecological Knowledge and Flood Coping Strategies in Wetland Communities: A Qualitative Study in Islampur Union, Bangladesh

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ABSTRACT

Flooding is a common hazard in Bangladesh, occurring every year and affecting almost all regions of the entire country. The Islampur union of Sunamganj district is located in the north-eastern part of the country and close to the world's rainiest place, Meghalaya. Therefore, it faces significant rainfall, making it one of the most adversely hit locations. In order to survive, the locals in this union have accumulated an incredible amount of Traditional Ecological Knowledge (TEK) pertaining to floods. This research seeks to comprehend TEK's function in handling disasters associated with flooding in that particular area. The study has two objectives: one is why flood-affected wetland communities use local knowledge, and another is how TEK is used and transmitted in their everyday lives. The study follows two questions: firstly, what purpose does local knowledge serve for the flood-affected rural north-eastern communities of Bangladesh? And secondly, what are the uses of TEK, and how does it become a shared cultural practice in everyday life? Data were collected from four distinct villages of Islampur Union in the Sunamganj district, Bangladesh. Primary data were collected using semi-structured questionnaires and the KII method. To understand the emic perspective, the study involved the case study method on a specific phenomenon. Data was descriptively analysed following a qualitative approach. This study found essential connections between traditional knowledge and flood coping mechanisms in the study area. It has also found that TEK and the resilience of wetland communities are intertwined through the practices of everyday life. This study attempts to explain the importance of TEK in dealing with various flood-related adversities in north-eastern Bangladesh. The significance of this finding is that it demonstrated the importance of the integration of traditional knowledge systems alongside scientific and official methods in constructing inclusive and culturally relevant disaster governance.

JEL Classifications: Z10, Q01, Q54

Keywords: Traditional Culture, Flood Coping, Traditional Ecological Knowledge, Wetland Community, North-eastern Bangladesh.

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INTRODUCTION

Flooding is a prevalent disaster in Bangladesh, occurring annually and impacting almost all regions of the entire nation. Floods impact more severely in the north-eastern part of the country and bring socio-economic challenges for thousands of people (Bhuiyan, Paul, & Abdussabur, 2024; Mondal, 2022). As this region is situated within wetland and floodplain ecosystems, it makes it vulnerable to chronic and devastating floods. Therefore, to survive, people of this area developed informal culture-based knowledge, and for generations, this knowledge has helped them cope with flood disasters. (Hossain, Ajiang, & Ryakitimbo, 2019). Though such traditional ecological knowledge (TEK) work is an important method for community resilience all over the world and before the advancement of modern disaster risk reduction strategies, it played the most crucial role, in academia, especially in Bangladesh, it remains an under-represented and often overlooked phenomenon (Haque & Etkin, 2012; Mondal, 2022).

TEK comprises cumulative bodies of informal cultural knowledge of local communities, which are shaped through prolonged interaction with the local environment and transmitted across generations via social interactions, rituals, and practices (Anik & Khan, 2012; Berkes, 2012; Mondal, 2022). It includes approaches to sustainable resource management, ecological balance, and adapting to environmental change (Baker and Ghimire, 2003; Gomez-Bagethun, Corbera, and Reyes-Garcia, 2013). Valuation studies also highlighted that natural areas provide multiple benefits for human well-being, reinforcing the importance of TEK for ecosystem services (Kawsar et al., 2015; Rasel et al., 2022). The efficacy of TEK has been observed across diverse global contexts, offering valuable insights into how communities all over the world perceive, respond to, prepare for, and recover from hazards (Alcántara-Ayala, 2025; Kelman, Mercer, & Gaillard, 2017). From the forests of Ecuador to the arctic herding grounds of Finland or from the savannahs of Botswana to the mangroves of the Sundarban, TEK remains a cultural resource to face natural calamities (Becker & Ghimire, 2003; Ketlhoilwe & Jeremiah, 2016; Mondal & Das, 2022; Terrado et al., 2023). Hence, when integrated with science, policy, and other official knowledge, TEK can be a potential global approach toward environmental sustainability and justice (Mercer et al., 2010).

Recent geospatial analysis in other regions of Bangladesh shows that anthropogenic land-use change and groundwater dynamics substantially modify local hydrological regimes, which in turn influence climate-related risks (Rasel et al., 2022). For instance, in their study, Al Mamun and Pavel (2014) explained how indigenous coping strategies in flood-prone areas contribute directly to climate adaptation. The flooding possibility in the north-eastern area of Bangladesh, particularly in Sylhet and Sunamganj, is fundamentally connected to its geographical and climatic situation. It is located very close to Meghalaya, India, famously known as one of the rainiest places in the world. Frequent floods in various localities of Sunamganj, such as Islampur Union, bring difficulties to sustainable livelihoods and cause human casualties every year. Despite the fact that there remains a noteworthy flood coping mechanism plan for this region, it still is vulnerable to recurring floods. The following are thought to be the causes:

- A. Too much dependency on top-down strategies that neglect community-based indigenous knowledge, where this bottom-up approach has the geographical, cultural, and historical value on the flooding adversity.
- B. Another source of concern is inadequate maintenance of modern technologies, such as undragged rivers and poorly managed embankments.
- C. Destruction of natural barriers for the sake of livelihood improvement and agricultural demands (Alam & Hossain, 2022; Bhuiyan, Paul & Abdussabur, 2024; Haque, 2016).

This is consistent with broader evidence from Bangladesh that inclusive rights-based approaches and equitable attitudes towards marginalised groups are critical for disaster risk reduction (DRR). Moreover, TEK frequently improves the fortitude of people living in flood-prone areas (Mercer et al., 2010; Haque & Etkin, 2012; Mondal, 2022; Kalam et al., 2024). Again, the connections between financial condition and broader economic growth in the SAARC region highlight how restricted financial systems can indirectly limit investment in resilience and adaptation. Considering these factors, it can be said that, for countries like Bangladesh, TEK-based disaster management can be a new key, as it is simultaneously sustainable and low in cost.

The flood-affected people of the country have developed innovative ways to minimise and overcome the damages of disasters (Al Mamun & Pavel, 2014; Chowdhoree, Sloan, & Dawes, 2019; Datta, Kairy, & Hurlbert, 2024). But their informal way of predicting and tackling floods has insufficiently been discussed in the TEK-DRR literature. Therefore, this study investigates TEK-based flood coping strategies among four villages of Islampur Union of Sunamganj District of Bangladesh. Employing a qualitative, community-centred explanatory approach, the present study aims to explain the importance of TEK in dealing with various flood-related adversities in that region. It also wants to bridge its findings within the broader debates on disaster adaptation and risk reduction. In doing so, the study hopes to contribute to an emerging body of interdisciplinary discourses that emphasise the merging of TEK alongside scientific and official methods in constructing inclusive and culturally relevant disaster governance.

RESEARCH OBJECTIVES AND QUESTIONS

The purpose of this study is to enquire about existing traditional knowledge regarding flood coping mechanisms of the north-eastern rural communities of Bangladesh. It also tries to understand its role in adapting to flood-related crises. It has the following objectives:

- To understand why north-eastern flood-affected wetland communities use traditional knowledge.
- To contextualise how TEK is used and transmitted in their everyday life.

This study has the following questions:

- What purpose does traditional knowledge serve for the flood-affected north-eastern rural communities of Bangladesh?
- How does TEK become a shared cultural practice in everyday life?

LITERATURE REVIEW

Theoretical Framework of TEK

Traditional ecological knowledge is a discourse that is preserved by intergenerational practice (Gómez-Baggethun, Corbera, & Reyes-García, 2013; Martin et al., 2010). It's transmitted verbally and non-verbally (Bang, 2024). It is not only information related to nature but also an integrated form of human environmental experience, cultural practices and beliefs (Berkes, Colding, & Folke, 2000; Pierotti & Wildcat, 2000). TEK often comes up in the natural and environmental resource science and policy literature (Houde, 2007). Ecologist Fikret Berkes defines TEK as the following:

A consistent set of knowledge, practices and beliefs, developed through processes of adaptation and culturally transmitted from generation to generation, relating to the interrelationships of living beings (including humans) and their environment” (Berkes 1999).

Researchers often understand TEK as a form of collective indigenous knowledge that is preserved and transmitted from generation to generation culturally (Martin et al., 2010). It is also about the relationships that living things develop with each other and with their environment (Whyte, 2013). TEK is logical and reliable knowledge which local people have developed through generations of close relationships with their land (Mauro & Hardison, 2000). This knowledge is usually reserved for people in less technological societies, who are directly dependent on local resources (Kimmerer, 2002). It is applied as a combination of knowledge and skills which are formed through an individual's cultural history and education and are expressed in the regulation and use of components given the prevailing environmental conditions (Charnley et al., 2008). In general, traditional environmental knowledge is essentially a featured system of knowledge, manners and beliefs. Berkes believes TEK has the following three key components:

- (a) *Factual knowledge – which provides an understanding of environmental factors and processes.*
- (b) *Knowledge put into practice – which refers to applications related to the use of environmental resources.*
- (c) *Cultural values, ethics, and philosophies – which determine the relationship of humans with nature. (Berkes, 2008: 7)*

To discuss the findings, this study will follow Berkes's framework to gain an in-depth comprehension of how wetland communities' TEK has evolved through their experience, observation, and interaction with other knowledge systems. In addition, it will also explain how their TEK helped them to adapt to changing environmental conditions over time.

Disaster and TEK in the Global Context

Natural disasters have always caused trouble for mankind. But with time, humans also invented various methods to tackle these problems. The advancement of science and technology has made natural disasters more and more manageable. In parallel, traditional

knowledge related to disaster management has also made a long-standing contribution to risk reduction during disasters. Despite the dominance of modern approaches, such traditional ecological knowledge still remains significant all over the world. For example, research conducted in Botswana and India shows that TEK is convenient for holistic, sustainable, and integrated environmental conservation (Joshi, 2023; Ketlhoilwe & Jeremiah, 2016; Mondal & Das, 2022).

Blending TEK with scientific tools again enhances communities' abilities to generate, adapt, transmit, and apply ecological knowledge (Gómez-Baggethun, Corbera, & Reyes-García, 2013). The success of such a combination was explored by Terrado et al. (2023) in Finland. They found that reindeer herders co-produce climate services with scientists to enhance resilience in a changing Arctic context. Similarly, in Ecuador, synergy between TEK and Western conservation science altered local people's forest-use patterns, which were reducing their water supply, and established a community-based conservation effort that preserved ecosystem services and biodiversity (Becker & Ghimire, 2003).

Within Bangladesh, TEK has been particularly explored in relation to its functionality for climate adaptation. For instance, Al Mamun and Pavel (2014) documented how indigenous crop cultivation techniques in flood-prone areas directly contribute to agricultural resilience. This knowledge is part of a larger cultural heritage and informal livelihood system, which is not only important for community survival but also decreases the risk of shocks, as observed by researchers during the COVID-19 pandemic (Al Mamun & Uddin, 2021). Integrating TEK with disaster risk reduction (DRR) is consistent with the larger evidence that inclusive, rights-based approaches are essential for building sustainable communities (Kalam et al., 2024). However, existing literature reviews in this area are often descriptive, lacking a clear synthesis of the debate or specific identification of contextual information, particularly regarding how TEK operates within specific socio-ecological systems such as the wetland or *haor* basins of Bangladesh.

Flood Crisis and Resistance in Wetland Area of Bangladesh

Natural hazards are common phenomena in Bangladesh due to its geographical position. The impact of various hazards in the country has been reflected in the global climate risk index of 2021, where Bangladesh is positioned 7th on the list of the most damaged and affected countries by natural disasters in the world in the last 20 years. Among the different forms of disaster the country faces each year, flooding is one of the most persistent and destructive ones. According to the INFORM Sub-National Risk Index 2022, jointly released by the Ministry of Disaster Management Relief and the United Nations Resident Coordinator's Office, Chhatak Upazila of Sunamganj is one of the country's most vulnerable regions regarding floods (Ministry of Disaster Management and Relief & United Nations Resident Coordinator's Office, 2022). The report assigns the area a score of 6.2, which places it in 11th position among 553 upazilas reviewed nationwide. The field area of this study, Islampur Union, belongs to this Upazila. Being located in a highly vulnerable area means that Islampur Union not only faces frequent natural disasters but also faces serious social and economic challenges that increase the overall fragility of the people of this area. Such vulnerabilities are often shaped by environmental mismanagement. Recent geospatial analyses, such as those for the Barind tract, show that anthropogenic land-use change and

changes in hydropower systems significantly alter climate-related risks (Rasel et al., 2022), which is equally relevant for the wetland region (Shafie & Rahman, 2009). Therefore, it is important to know how people are coping with climate risks in their everyday lives, often caused by an elite form of their own species.

Like all over the modern world, Bangladesh also has two types of resistance systems regarding flood-related natural adversity. One of which is the traditional knowledge that comes from the beliefs and experiences of the community, and another is the modern or scientific approach. Over time, people have developed a number of tactics to tackle floods. For example, many elderly people in a village can forecast weather as well as the different types of floods and therefore can take necessary precautions. Surprisingly, their prediction often matches the modern forecasting data (Shafie & Rahman, 2009). Understanding the usefulness of TEK in disaster management, Sohini Bose and Nathu Anna Saji (2020) developed the concept of Community-Based Disaster Risk Reduction (CBDRR), which emphasises engaging traditional knowledge to reduce disaster risk and formulate strategies for the risk level at the community level. Among South Asian countries, Bangladesh was the first to adopt CBDRR after the deadly cyclone of 1970. In Bhola the cyclone resulted in a devastating flood that caused the death of around 300,000 to 500,000 people (BIGD, 2019). CBDRR gained further significance after the floods of 1998, referred to as the ‘flood of the century’. Previous research on DRR frameworks has further emphasised that effective policies need to leverage traditional and local knowledge to be truly adaptive and sustainable (Paudel et al., 2024; Bang, 2024). Furthermore, studies highlight that community-led strategies and a detailed understanding of local wetland ecosystems are crucial for flood disaster preparedness (Datta, Kairi, & Hurlburt, 2024). These research studies emphasise that TEK is not just a daily practice but a systemically important resource for resilience to the environment and livelihoods (Rahman et al., 2015; Rahman et al., 2013).

The north-eastern region of Bangladesh, especially the Sunamganj district, has historically been prone to devastating floods and faces adverse destruction and calamities. The cloudburst streams from Cherrapunji run down into the Surma River to the Kushiya River channel, flowing within the low-lying fields of this region before they empty into the Bay of Bengal. During the yearly monsoon, many parts of the country become flooded due to heavy rains. But not all floods are similar, nor do all floods lead to disaster. Some examples that brought severe damage are the floods of 1988, 1998, 2004, 2007, 2017, and 2020. All these floods caused lasting harm on a personal and financial level. For instance, the 2017 flash flood spoilt the rice harvest in Sylhet. Omar Zahid (2022) mentioned in detail in his article the frequency of floods for several decades in that region as well as the related adversities. Another example is the floods of 2020 that influenced 33 districts and lingered on for more than 40 days while the country was fighting the COVID-19 pandemic and many people had lost their jobs or income sources for that reason. Again, Tuli, Rashid, and Akter (2024) noted that the 2022 flood in Sylhet and Sunamganj caused severe infrastructural and economic damages in that region. The inversion wiped out nearly 106,727 water sources, ruined 283,355 latrines, and inundated around 254,251 hectares of cropland, while also resulting in considerable livestock losses. Humanitarian reports corroborate these findings, further pointing out that roughly 30,000 people were displaced and over 1.6 million

individuals were left in highly vulnerable situations (ReliefWeb, 2024). The reasons why floods have been so devastating in recent times have drawn the attention of many investigators. Their explanations for this complex question come down to a combination of climate change, deforestation, destruction of hills, unauthorised and unplanned development works in the wetland, and the massive loss in navigability in the rivers in the Meghna basin (Dewan, Nishigaki, & Komatsu, 2003; Islam & Sado, 2000; Islam, 2024; Zahid, 2022).

Flood Dynamics and Local Adaptation in the Sylhet-Sunamganj Wetland Basin

Flooding in the Sylhet-Sunamganj wetland basin has been studied from many angles, and researchers often point to a few common causes. One major problem is that rivers like the Surma and Kushiyara are not dredged regularly. Because of this, their depth has gone down over the years, and during the monsoon, they cannot hold as much water as before, which leads to overflow (Alam & Hossain, 2022). Another important issue is the loss of natural wetlands or *haors*. In the past, these wetlands acted as vast reservoirs, holding excess rainwater. However, over the years, their area has shrunk due to agricultural expansion and unplanned cities, so they are no longer able to absorb water as they once did (Alam and Hossain, 2020). In fact, many scholars have warned that unless haors are restored, their ability to act as natural shields against floods will continue to weaken (Byomkesh, Nakagoshi, and Shahedur, 2009; Siddiqui and Haque, 2025; Smith et al., 2021). Floods are also shaped by rainfall that happens outside of Bangladesh. The Indian states of Meghalaya and Assam, lying just a few kilometres upstream of Sunamganj, receive extremely heavy rain during the season. That water flows directly into the haor basin. Research has shown that when Meghalaya receives around 200 mm of rain and Sylhet gets about 400 mm within a short stretch of time, the result can be devastating floods across the wetland areas of Bangladesh (Islam & Sado, 2000; Mirza, 2002).

The extent of damage is reciprocal from year to year, but the question remains: what are the preventative ways? Barua and Rahman (2018) point out that traditional ecological knowledge (TEK) is basically the set of local strategies and practices people have built over generations to deal with floods. Existing literature shows that such knowledge provides many informal ways to tackle the flood-related crisis in Bangladesh, such as knowing the seasonal flow of water, making small but adaptive forms of infrastructure, and using farming and natural resources in ways that lower risk during floods (Ahmmed, 2015; Al Mamun & Pavel, 2014; Barua & Rahman, 2018). Though there are valuable insights regarding the issue, significant gaps still remain in this literary field. For example, most of the existing work on TEK in Bangladesh, although original, is scattered and lacks a cohesive narrative showing how it functions within the unique environment of the haor region, especially in the north-east, where it faces complex interactions of climate, hydropower, and socio-economic pressures. Recent research on haor livelihoods has confirmed their acute vulnerability, describing how flood risk is linked to poverty and limited access to resources (Haq, Raha, & Hossain, 2021; Haq, 2016). Furthermore, the role of TEK is gendered; women often have specialised knowledge related to water, food security, and household preparedness, yet their contributions to formal disaster risk reduction (DRR) planning are often overlooked (Chishti et al., 2021). Insights into traditional water technologies show how access to water is linked to gender resilience (Salauddin, Sarkar, & Al Mamun, 2022), suggesting that TEK should

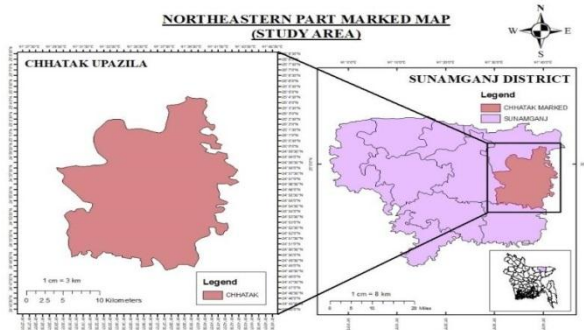
also be studied from a gender perspective. Broadly, household disaster preparedness is influenced by a complex combination of knowledge, perceptions, and direct experiences (Karim, 2024), which, although shaped by TEK, have not been fully explored in the context of the wetland region of Bangladesh.

So, examining such traditional knowledge can not only develop the understanding of disaster management but also contribute to more inclusive and context-specific flood adaptation policies. The goal of this study is to fill these related gaps. It attempts to provide a well-structured analysis of the TEK of the flood-prone Islampur Union of Sunamganj District to present how such knowledge is effectively applied and transmitted and creates variations within the wetland community. Situated within a broader debate on sustainable livelihoods, environmental services, and inclusive governance, this study aims to clarify how TEK contributes to community resilience. This research will explore the potential for linking TEK and scientific DRR frameworks to contribute to culturally sensitive and more equitable adaptation policymaking. In doing so, it will build on and extend previous research on local agricultural adaptation (Al Mamun and Pavel, 2014; Pavel, Chowdhury, and Al Mamun, 2014). It will also be consistent with the fundamental idea that integrated implementation of DRR in socio-cultural contexts is essential for achieving genuine community-based resilience (Graveline et al., 2025).

MATERIALS AND METHODOLOGY

GEOGRAPHICAL MAP OF STUDY AREA: 01

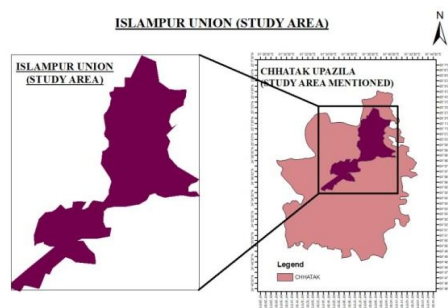
Islampur is a Union of Chhatak Upazila, located in the northeast of Bangladesh under the administration of Sunamganj district of Sylhet Division. The Chhatak Upazila is situated 36.3 km east of the Sunamganj district. The first map displays the Sunamganj district on the right image and Chhatak Upazila highlighted on the right. In the right image, the legend is showing a sign of the structure of the map.



Source: Developed by Researchers

GEOGRAPHICAL MAP OF STUDY AREA: 02

In this study, Islampur Union of Chhatak Upazila was selected as the study area. The Surma River and Piayain River flow around the union. The selected four villages under Islampur Union are located at the very front of other villages, and consequently, these villages face flash floods earlier than others. Also, in terms of vulnerability, these villages get an earlier focus than others. The Kushiya, Piayain, and Surma Rivers are used to carry water from the northern upstream of



Source: Developed by Researchers

Bangladesh. The second map shows Chhatak Upazila on the right side, and the Islampur union is shown on the left side of the map. Islampur Union Parishad is located to the northeast, 2.5 km from Chhatak Upazila Zero Point.

Sampling Technique and Determination

FIGURE 01: FIGURE OF SAMPLING CRITERIA

Primary data was collected from four villages of Islampur Union. This study attempted to gather information using both the convenience sampling method and the purposive sampling method (See: Figure 01). The aim of selecting the convenience sampling method was to obtain initial and primary data related to the selected topic. However, while collecting data, the researcher noticed that, although this method is convenient in terms of time, there is a risk of data reliability. Many respondents, when asked about flood coping knowledge, would encourage contacting local elders, but they provided general information. As a result, for KII information and experiential data related to the topic, the present study collected specific information from local elders and key informants. Thus, this study emphasised the purposive sampling method, focusing on purposive persons such as Ward members and union Parishad members.

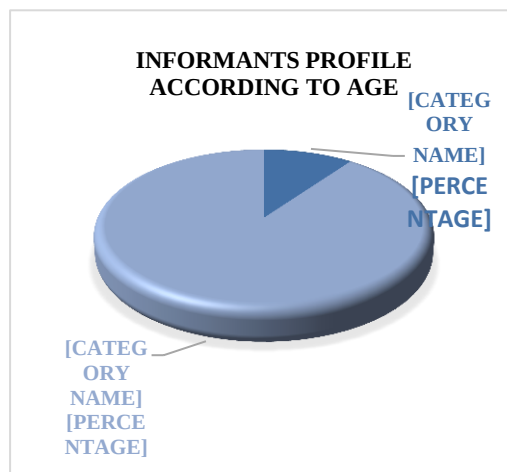


FIGURE 02: FIGURE OF SAMPLING CRITERIA

A substantial portion of data was collected from local rural males, accounting for 60 percent of information, while local females contributed significantly from their perspective, accounting for 40 percent involvement. The number of women informants was less than that of men due to household responsibilities during the data collection period. The pie chart (See: Figure 02) illustrating the percentage of information provided by local women and men accompanies the study's findings.

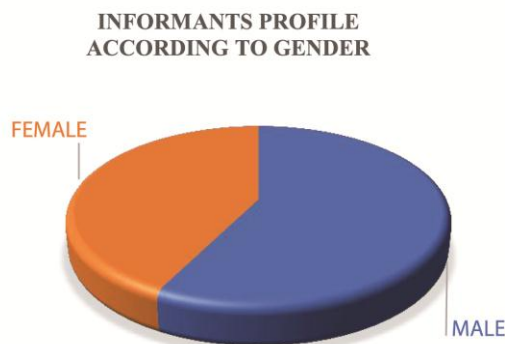
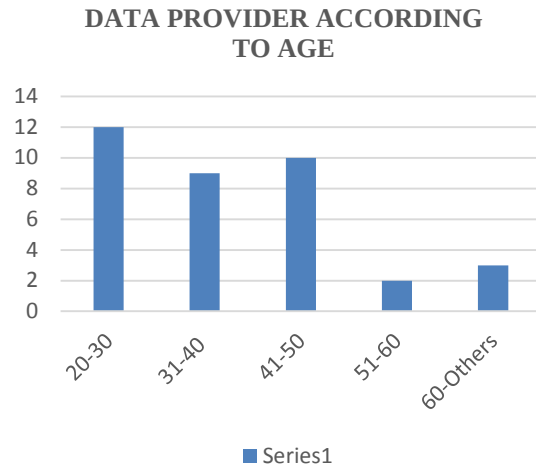


FIGURE 03: FIGURE OF SAMPLING CRITERIA

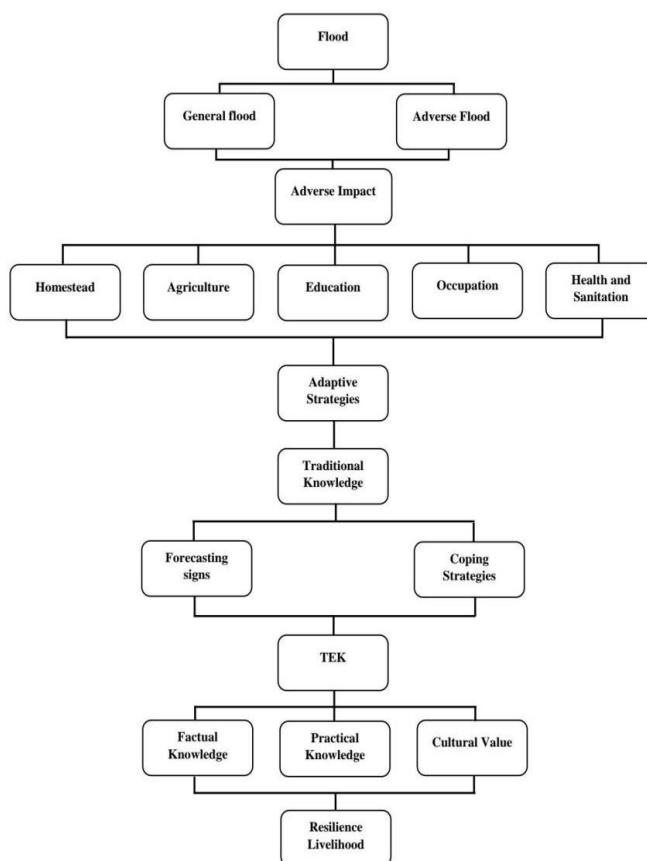
During the data collection period, the present study emphasized the importance of age-specific information regarding flood coping mechanisms (See: Figure 03). Individuals aged 20-30 were the largest group of contributors, accounting for 12 respondents, while the next most significant contributor was those aged 31-40, totalling 9 respondents. The next group were examples of flood coping strategies based on their relevant experiences. Furthermore, purposive sampling included senior citizens aged 40 to 60 and local ward members and chairpersons, who provided important insights into the crisis. Respondents aged

over 30 were also notable, with 9 more participants providing valuable information. Respondents aged 41-60, a total of 12 respondents, played an active role in the study, increasing participation in disaster-related research related to floods.



Data Collection Tools

As this study followed a qualitative research approach, it emphasised fact-finding and thematic analysis. A semi-structured questionnaire was conducted to collect field data to get an open-ended view about the concerning matter. As mentioned earlier, the field was conducted in four villages in the Islampur Union of the Sunamganj district. To document responses, the researcher maintained the pen-and-paper method, as researchers wanted to document and analyse those findings for research purposes. To understand deeply involved and responsible informants, three KIIs were performed. To understand past and present situations, it has also employed the case study method on the selected topic. The study procured the dependent variable (DV) as adaptive strategies (i.e., forecasting signs and coping strategies), while the independent variable (IV) was procured as traditional ecological knowledge (i.e., factual knowledge, practical knowledge, and cultural values). Overall, well-mannered behaviour was maintained while collecting data from the informants to ensure credibility and ethical consideration.

FIGURE 04: VISUALIZE PROGRESSION OF RESEARCH DESIGNED

Source: Developed by Researchers

Study Design

In the north-eastern part of Bangladesh, studies show that floods almost always come every year. Normally there are regular floods, but quite often the situation turns into severe flooding as well. The negative effects of such floods on the daily life of people are shown in the visual below (See: Figure 04).

From this outline, it becomes clear that when floods (adverse, general) occur, people suffer in many ways, starting from their homesteads to agriculture, education, jobs, health, and even their very survival. In those hard times, the wetland communities try to depend on their traditional knowledge and practices, which help them to make life a bit more resistant against the disaster.

Ethical Consideration

The researcher maintained ethical integrity throughout the study by getting all participants' prior informed consent, preserving the confidentiality and anonymity of their responses, and engaging with communities in a respectful manner. Data collection was conducted using

non-intrusive methods (pen and paper), and the study prioritised participants' dignity and expertise, avoiding disrespect while honouring and crediting their traditional ecological wisdom as a major component of the research.

RESEARCH FINDING

To acquire an open-ended view of the concerning matter, a semi-structured questionnaire was conducted. The field surveyed four distinct villages of Islampur Union. Information about every village is presented with a table as the collected data is needed to maintain a particular sequence. From table 05 to table 08, researchers tried to show village-wise detailed findings one by one.

TABLE 05: GOALGAON (FLOOD COPING KNOWLEDGE)

NAME	AGE	GENDER	OCCUPATION	KEY INFORMATION / TRADITIONAL KNOWLEDGE
JASHIM UDDIN	41	Male	Boatman	<i>Flood occurs May-Oct; the river rises 15-20 ft; dark clouds over Meghalaya hills forecast floods; a phenomenon called “Gula” unties boats.</i>
MAINUDDIN BULU	42	Male	Fisherman	<i>Flood starts in May; dark hills mean flood; learnt forecasting from father; case: man died from lightning during the flood.</i>
ASHRAF HOSSAIN	28	Male	Job holder	<i>Believes snakes near houses mean a flood is coming; knowledge from grandmother.</i>
RASHEDA BEGUM	55	Female	Housewife	<i>A rainbow in the east-north-south direction means a flood is near.</i>
AFAZ MIA	38	Male	Fisherman	<i>Ants building nests higher than usual indicates heavy rain/flooding.</i>
LAFIFA BEGUM	32	Female	Housewife	<i>Numerous insects near homes mean a flood is likely.</i>
ASHIK MIAH	45	Male	Boatman	<i>Wind against river flow causes a rise; case: May 27, 2024, a hilly wave untied a boat and lost his livelihood.</i>
AZMOL HOSSAIN, DINA BEGUM, AKRAM HOSSAIN, SUMA BEGUM (FGD)	24- 35	M/F	Businessmen & Housewives	<i>Problems: snakes, food scarcity, wet clothes, illness, no electricity; Solutions: garlic water for snakes, nets, stockpiling food (pumpkin, potatoes, puffed rice, and biscuits), portable stoves, rainwater storage, and kerosene lamps.</i>

TABLE 06: ISLAMPUR (FLOOD-COPING KNOWLEDGE)

NAME	AGE	GENDER	OCCUPATION	KEY INFORMATION / TRADITIONAL KNOWLEDGE
GAYES MIAH	42	Male	Fisherman	<i>A flood in Jaishtya-Ashad; dark clouds in the northern mountains forecast rising floods.</i>
SHAMIM MIAH	41	Male	Fisherman	<i>Two types: sudden Gang swelling & heavy monsoon rain. Coping: built houses with soil, made small boats, and went fishing for income.</i>
RUYEL MIAH	26	Male	Day labourer	<i>Frogs call overnight, and an overcast sky means a flood; snakes near the house also indicate a flood.</i>

REHANA, PARVIN, SARIFUL, TAMIMA (FGD)	25-41	Female	Housewives	<i>Problems: education disruption, waterborne diseases, destroyed houses, crop loss, price hikes, and child drowning. Solutions: rainwater storage, boats for school-going children, house raising, stockpiling food, and teaching swimming. Case: 2012 - two children drowned.</i>
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TABLE 07: PATHARIPUR (FLOOD COPING KNOWLEDGE)

NAME	AGE	GENDER	OCCUPATION	KEY INFORMATION / TRADITIONAL KNOWLEDGE
HAFSA, PARVIN, NASIMA, MUSAMMA (FGD)	28-55	Female	Housewives	<i>Problems: transport issues, education disrupted, paddy loss, child drowning. Solutions: build houses above the danger line, teach swimming, make wooden boats, and ferry people for income.</i>
NAZMUL HOSSAIN	26	Male	Nurse	<i>Adaptation: storing food before a flood; Forecast: immobile black clouds mean heavy rain & flood; knowledge from father.</i>
SAYMOL HOSSAIN	25	Male	Fisherman	<i>Cause: Gang Gula; Forecast: Impure, cold, muddy river water causes heavy rain in mountains & flooding.</i>

TABLE 08: RAHMATPUR (FLOOD COPING KNOWLEDGE)

NAME	AGE	GENDER	OCCUPATION	KEY INFORMATION / TRADITIONAL KNOWLEDGE
ZAKIR MIAH	47	Male	Businessman	<i>This village floods first as it is near the river; the forecast is weeks of monsoon rain, which means floods.</i>
JOYNAL ABEDIN	41	Male	Businessman	<i>Coping: keeps food, furniture, and books safe; books are stored high on a shelf ("sunset" place).</i>
PARUL AKTER	45	Female	Housewife	<i>Problems: insects, snakes; Solutions: net + chalk ash for insects, garlic water for snakes.</i>
SHAKLEN MIAH	35	Male	Day labourer	<i>The flood recedes when the rain stops, the sky clears, frogs call less, and insects burrow.</i>

Table 09 is showing information given by the key informants. Specifically, representatives of Islampur Union Parishad Md. Salik Miah, Kamal Miah and Md. Abdul Hafiz shared their significant views on concerning matters that researchers presented in table 09 by analysing qualitatively.

TABLE 09: UNION PARISHAD REPRESENTATIVES

Name	Age	Gender	Representative village/occupation	Ward No.	Key Insights on Flooding & Indigenous Practice
MD. SALIK	38	Male	Representative of Islampur Union	06	Floods cause serious annual damage; adaptive capacity is

MIAH			Parishad, assigned for Goalgaon & Islampur		unequal. Intergenerational knowledge helps residents survive well during flood periods. Problems: (a) Education and work are disrupted; (b) Sudden water flow of the Piyain River damages crops, houses, livestock, and vehicles. Conventional solutions: (1) Chapra Bil (Gualgaon), (2) Boro Bil (Islampur) functions as a natural reservoir. ➤ <i>Silt deposition reduces the depth of the Bil → decreases its water-holding capacity. Annual community-based fishing helps remove some silt. To improve resilience, community efforts are needed to restore the Bil's navigability.</i>
KAMAL MIAH	40	MALE	Representative of Islampur Union Parishad, assigned for Rahmatpur	05	Floods have both positive and negative impacts. ➤ <i>Floods are divided into normal and excessive floods. Villages located in high areas → are generally less affected. During excessive floods, Rahmatpur gets isolated; communication is disrupted. Normal floods increase fish availability from nearby haors, bringing economic benefits.</i>
MD. ABDUL HAFIZ	45	MALE	Representative of Islampur Union Parishad, assigned for Patharipur	08	The villagers have a deep connection between their livelihoods and water. 60% depend on fish farming; 20% depend on agricultural businesses. Normal floodwaters are beneficial to the majority. A sudden rise in floodwaters creates severe problems. ➤ <i>Traditional system: Narula</i>

Haor protects the village by serving as the main water reservoir. Excessive cultivation is reducing navigability. After the major floods of 2022 and 2024, immediate restoration of Narula Haor is crucial for future flood protection.

Table 10 is illustrating traditional flood-forecasting methods of wetland communities. While Table 11 is providing traditional flood-coping strategies.

TABLE 10: INFORMAL FLOOD PREDICTION METHODS

TRADITIONAL KNOWLEDGE / INFORMANTS % OF INFORMANTS VILLAGES FORECASTING SIGN MENTIONED ($\approx$ 36 TOTAL) REPORTED			
<i>Dark clouds on Meghalaya/northern hills mean a flood is coming.</i>	6	~17%	Goalgaon, Islampur, Patharipur
<i>Continuous rainfall for days/weeks indicates a flood.</i>	4	~11%	Goalgaon, Rahmatpur
<i>Snakes near houses indicate a flood.</i>	3	~8%	Goalgaon, Islampur
<i>Ants 'insects' movement (higher nests, many insects) means flood.</i>	4	~11%	Goalgaon, Rahmatpur
<i>Frogs calling overnight means a flood is coming.</i>	2	~6%	Islampu, Rahmatpur
<i>'Rainbow' (east-north-south) means a flood.</i>	1	~3%	Goalgaon
<i>Wind direction against river flow equals flood rises.</i>	1	~3%	Goalgaon
<i>Cold, muddy river water means a flood is coming.</i>	1	~3%	Patharipur
<i>Lightning clearing clouds indicates water recedes.</i>	2	~6%	Rahmatpur
<i>A clearing sky and sun mean a flood is decreasing.</i>	2	~6%	Rahmatpur

Table 10 gives an idea about how local people in the northeastern villages predict floods and also what they do to face the problems during floods. Most of the signs they notice come from nature. For example, some villagers said when dark clouds gather on the Meghalaya hills, flood water usually follows. Others mentioned that too much rain for many days, snakes coming closer to homes, or even ants and insects moving strangely are taken as signs of flooding. A few people also shared that frog sounds at night, cold muddy water in the river, or the wind blowing against the river flow mean that flood is coming soon.

TABLE 11: TRADITIONAL FLOOD COPING STRATEGIES

FLOOD PROBLEM	TRADITIONAL PRACTICE	INFORMANTS REPORTED	VILLAGES
SNAKES AROUND HOUSES	<i>Garlic water is sprinkled, and nets are kept around homes.</i>	~12%	Goalgaon, Rahmatpur
SCARCITY OF FOOD	<i>Stockpiling potatoes, pumpkin, puffed rice, biscuits, and jaggery before the flood.</i>	~20%	Goalgaon, Islampur,
SCARCITY OF DRINKING WATER	<i>Rainwater collection: storing in large drums.</i>	~10%	Goalgaon, Islampur
EDUCATION DISRUPTION	<i>Hand boats for children, teaching swimming.</i>	~8%	Islampur, Patharipur
LOSS OF HOUSES/FURNITURE	<i>Raising houses with soil, keeping books on high shelves, repairing homes.</i>	~15%	Islampur, Patharipur, Rahmatpur
ILLNESS FROM DIRTY WATER	<i>Store rainwater and boil water.</i>	~8%	Goalgaon, Islampur
ELECTRICITY OUTAGE	<i>Use kerosene lamps.</i>	~5%	Goalgaon
LOSS OF INCOME / WORK	<i>Temporary fishing, ferrying people on boats.</i>	~10%	Islampur, Patharipur
CROP LOSS (PADDY/VEGETABLES)	<i>Early harvesting of stock vegetables (pumpkin, potato).</i>	~7%	Islampur, Patharipur
CHILD DROWNING	<i>Teaching swimming from an early age.</i>	~5%	Islampur, Patharipur

DISCUSSION

Factual Knowledge in Study Area: Environmental Observation and Indicators

The people in the study area have their own ways of reading nature when it comes to floods (See Table 12). Clouds are one of the first things they notice. When dark clouds sit still over the Meghalaya hills, villagers believe heavy rain will continue and floods will appear within a week. The condition of the river is also checked; if the water turns muddy and cold, it is taken as a sign of upstream rainfall and a possible rise in water level.

TABLE 12: FACTUAL KNOWLEDGE

NATURAL FLOOD FORECASTING	Cloud Patterns: <i>Residents observe dark, stationary clouds over the Meghalaya hills (north) as a sign of prolonged rainfall and imminent flooding within 7 days (Nazmul Hossain, Patharipur).</i> River Conditions: <i>Cold, turbid river water indicates upstream rains and rising water levels (Saymol Hossain, Patharipur).</i>
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HYDROLOGICAL KNOWLEDGE	Animal Behaviour:
	<i>Ants building elevated nests signal heavy rain and flooding (Afaz Mia, Goalgaon).</i>
	<i>Frogs croaking excessively overnight represent the warning of morning floods (Ruyel Miah, Islampur).</i>
	Gula Phenomenon: Annual river overflow ("Gula") during monsoon (May-October) is linked to heavy rainfall and upstream water surges (Jashim Uddin, Goalgaon).
	Wind-River Dynamics: Winds opposing river flow correlate with rising water (Ashik Miah, Goalgaon). Winds aligning with river flow signal receding floods (Shaklen Miah, Rahmatpur).

Animal behaviour plays a big role too. Ants making nests on higher ground are thought to mean a big flood is near. Similarly, frogs croaking all night long is believed to be a warning of water rushing in by the morning. Besides this, people also observe the “Gula” phenomenon, which happens every monsoon when rivers overflow due to heavy rainfall and hill water. They even link the wind with flood behaviour. If the wind blows against the river, they expect the water to rise. When the wind goes in the same direction as the river, they think the flood will soon go down.

Practical Application in Study Area: Adaptive Strategies

The communities don't just rely on signs; they also prepare themselves with different strategies (See: Table 13). For houses, some raise the floors with soil so that water cannot enter easily, while others build on higher ground. Boats are treated like lifelines there, used not only for travel but also for fishing and during emergencies.

TABLE 13: PRACTICAL APPLICATION

INFRASTRUCTURE ADJUSTMENTS	<i>Elevated Housing: Raising homes above flood levels using soil (Shamim Miah, Islampur) or building on hills (Zakir Miah, Patharipur).</i>	<i>Boats as Lifelines: Small wooden boats for transportation, fishing, and emergency use (Shamim Miah, Islampur; Ashik Miah, Goalgaon).</i>
RESOURCE MANAGEMENT	<i>Food Storage: Pre-flood stockpiling of non-perishables like jaggery, puffed rice, and sweet pumpkins (FGD Group, Islampur).</i>	<i>Water Conservation: Collecting rainwater in drums for drinking during floods (FGD Group, Islampur).</i>
ECOLOGICAL SOLUTIONS	<i>Bils and Haors: Community-managed wetlands (e.g., Chapra Bil, Narula Haor) absorb flood surges. Siltation from annual floods reduces their capacity, prompting communal</i>	<i>Natural Repellents: Garlic paste to deter snakes and chalk-ash-coated nets to block insects (Parul Akter, Rahmatpur).</i>

desilting efforts (Md. Salik Miah, Islampur).

RISK MITIGATION	<i>Swimming Training: Teaching children to swim to prevent drowning (Rehana et al., Islampur FGD).</i>	<i>Emergency Protocols: Sheltering in neighbouring villages during storms (Mainuddin Bulu, Goalgaon).</i>
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Food is stored in advance, mostly items that don’t spoil quickly, like puffed rice, pumpkins, and jaggery. Rainwater is collected in big drums and saved for drinking since tube-well water becomes unsafe. Ecological knowledge is also part of survival. Villagers take care of their local wetlands, as they usually absorb floodwater. But when these wetlands fill with silt, people join together to clean them. For protection from snakes, they sometimes use garlic paste; on the other hand, chalk ash is applied to nets to keep insects away. Risks during floods are also managed in a practical way. Children are taught to swim at an early age so that they can avoid drowning. When floods turn very bad, families temporarily move to nearby villages, often to their relatives’, for safety. These strategies may look simple, but they show how closely people adjust their lives with nature.

Cultural values in Study Area: Intergenerational Transmission

Flood-related knowledge is not only practical but also tied with cultural values (See Table 14). Many villagers believe that rainbows seen in the east, stretching north to south, are a sure sign of floods. Snakes appearing close to houses are also treated as flood omens, and people avoid killing them because of taboos.

TABLE 14: CULTURAL VALUES

BELIEF SYSTEM	Omen-based warnings: <i>Rainbows in the eastern sky (north-south axis) foretell floods (Rasheda Begum, Goalgaon).</i> <i>Snakes near homes are seen as flood omens; killing them is taboo (Ashraf Hossain, Goalgaon).</i>
ETHICAL STEWARDSHIP	Respect for Ancestral Wisdom: <i>Forecasting methods (e.g., cloud observations) are passed down through generations and treated with reverence (Nazmul Hossain, Patharipur).</i> Community Cooperation: <i>Collective efforts to de-silt Bils/Haors and share boats during crises reflect communal responsibility (Md. Abdul Hafiz, Patharipur).</i>
SPIRITUAL NARRATIVE	Angry Clouds: <i>Stationary dark clouds are interpreted as nature’s wrath, requiring preparedness (Nazmul Hossain, Patharipur).</i>

Knowledge of forecasting, for example, through watching clouds, is a very common activity among wetland communities. It is passed down from older generations and respected as ancestral wisdom. Alongside this, community life is shaped by cooperation. People share boats during crisis times and also work together to de-silt wetlands. Such activities are seen as a collective responsibility. Some explanations are connected with spiritual meaning. For example, stationary dark clouds are often described as “angry clouds”, which villagers interpret as nature’s warning. These cultural phenomena show that flood knowledge is not only about survival but also about beliefs, heritage, and the spirit of community.

The Importance of Traditional Environmental Knowledge in Sustainable Livelihoods

Active Adaptation: Basic Systems and Predictive Approaches

Traditional environmental knowledge helps communities to predict floods through natural signals, which enables timely preparation and risk reduction. For example:

Cloud Observation:

According to locals like Jasim Uddin of Goalgaon, the sighting of dense, stationary black clouds in the Meghalaya hills and northern parts of Islampur Union indicates that there will be rain in the hills and, hence, flooding. It can predict floods with indirect indications of heavy rainfall and flooding within 7 days. Moinuddin Bulu (Goalgaon) recalls how his father's cloud warnings once saved them from a storm. On the contrary, fisherman Abdur Rahim died in a lightning strike, which was a terrible consequence of ignoring natural signals, Moinuddin Bulu (Goalgaon) points out.

Rivers and Animal Behaviour:

River behaviour: Saymol Hossain of Patharipur said that if the river water is cold and impure, it indicates an upward flood or an increase in flooding.

- (a) *Ants and frogs:* Afaz Miah of Goalgaon, seeing the ants building high nests, believed that floods were the result of heavy rains, and according to Ruel Miah of Islampur, excessive calls of frogs were indicators of impending floods.
- (b) *Snakes:* As per the teachings of Ashraf Hossain’s grandmother of Goalgaon, seeing a snake near the house is a warning sign of a flood. As a result, if a snake comes near the house, it is better to drive it away without killing it.

These signals prompt flood preparedness measures such as stockpiling food, building manual or motorboats and protection (i.e., evacuation to a safe place). For example, the family of Moinuddin Bulu of Goalgaon took shelter in Bangathila village after seeing a dark cloud which protected them from the deadly lightning.

Utility-Orientated Coping:

TEK emphasises community-driven strategies that are readily available within the respective communities, cost-effective and adaptable. For example:

Infrastructural Ecological Knowledge:

- (a) **Settlement:** Shamim Mia of Islampur raises his house annually with soil to prevent floodwater and tries to keep his house above the flood danger level. Zakir Mia of

Rahmatpur has built his house on the highest place possible, i.e., on the side of the hill, so as not to be in danger of floods.

- (b) **Manual and Engine Boats:** Handcrafted manual wooden boats of fishermen like Goalgaon's Ashik Miah and engine boats provide transportation and temporary livelihood during floods.

Natural Remedies:

- (a) **Garlic Paste:** The tradition of Parul Akter of Rahmatpur uses garlic paste to repel snakes.
- (b) **Chalk-ash netting:** Burnt portions of chalk, including ash and ash netting, protect food and shelter from insects.

Food and Water Management:

- (a) (Islampur FGD team) Stockpiles of food with good shelf life like jaggery, puffed rice, biscuits, potatoes, sweet pumpkin (Islampur FGD team) when floods inundate markets.
- (b) The stakeholders ensure clean water during floods by storing rainwater in drums.
- (c) These solutions, however, reduce dependence on external aid. For example, Ashiq Mia's boat was swept away by the 2024 "Pahari dhal" flood, but community-shared boats aided in movement and livelihoods.

Cultural Practices: Intergenerational Knowledge and Collective Efforts

TEK is based on cultural transmission and collective values, which sustain survival strategies from generation to generation:

- (a) Traditional education: Elders like Moinuddin of Goalgaon village teach the youth about clouds and lightning to encourage them to be vigilant. Fishermen like Moinuddin learnt flood forecasting from his father, highlighting the importance of experiential knowledge.
- (b) Community-based practices: Wetlands absorb floodwater and bring awareness to adverse situations. Villagers in Goalgaon, Islampur and Patharipur collectively removed silt from Chapra Beel and Narula Haor to restore floodwater-holding capacity (Source: Md. Salik Mia, Islampur Union Parishad Member, Ward 06).
- (c) Swimming training: According to the findings of FGDs conducted with Rehana and others in Islampur, children are taught to swim from an early age, which reduces the risk of children drowning.

Cultural taboos and beliefs:

- (a) Killing snakes is prohibited, as they are seen as predictors of floods (Ashraf Hossain, Goalgaon).
- (b) A rainbow in the eastern sky (along the north-south) is interpreted as a divine warning, which means there is a possibility of another flood (Rasheda Begum of Goalgaon village).

- (c) Such practices build community cohesion and tolerance. A combination of proactive adaptation, resource-based adaptation and cultural practices highlights the essential role of TEK in flood prevention. By interpreting environmental cues, using local resources, and preserving ancestral knowledge, communities like Goalgaon, Islampur, Patharipur, and Rahmatpur not only cope with floods but also maintain their cultural identity.

RECOMMENDATIONS

- (a) The first suggestion is for future studies. This study suggests future scholars focus on hybrid flood forecasting systems. Hybrid forecasting should be seen as a combination of traditional indicators (e.g., cloud patterns and animal behaviour) and modern technology (e.g., satellite weather data and river monitoring systems).
- (b) Another recommendation is to prioritise wetland restoration in policy practice. This study recommends considering community-led actions such as releasing wetland silt into governmental and NGOs' policymaking.
- (c) Community empowerment and alternative livelihood practices can enhance local institutions, such as union councils, in leading flood prevention efforts. So, strategies should be taken to ensure equal distribution of resources for local government sectors and reduce dependence on central authorities.
- (d) The flood-fighting traditions of Goalgaon, Islampur, Patharipur and Rahmatpur demonstrate the effectiveness of traditional environmental knowledge (TEK) as a coping mechanism and in building resilience. By incorporating traditional knowledge along with scientific techniques, vulnerable communities cannot only resist flood crises but also thrive in the face of climate uncertainty. This study, therefore, found the significance of conserving and advancing traditional ecological knowledge as a fundamental aspect of sustainable development and resilient livelihoods in flood-prone areas.

CONCLUSION

This study highlights the important role of traditional ecological knowledge (TEK) in flood coping among rural communities in four villages of Islampur Union of Sunamganj District in Bangladesh. The findings figured out three key aspects of flood coping: (1) proactive adaptation, (2) low-cost solutions, and (3) cultural continuity. Community members predict floods by observing natural signs such as cloud formation, river behaviour, and changes in animal activity and prepare accordingly by storing dry food, building houses, and securing boats. By using readily available materials such as soil for house construction or garlic for pest control and following community practices such as wetland management and boat sharing, they reduce the impact of floods in a cost-effective and environmentally friendly way. The transfer of knowledge from generation to generation helps keep these adaptive strategies effective, while culturally embedded beliefs, which include interpreting snakes as evil or rainbows as warning signals, reinforce social unity and collective preparedness. Despite these positive outcomes and strengths, challenges such as wetland sedimentation, climate unpredictability and isolation during extreme floods persist. These issues emphasise the need to integrate TEK with modern innovation to enhance long-term resilience.

Therefore, this study recommended prioritising wetland restoration and focusing on hybrid flood forecasting systems along with the cultural practice of wetland communities. It also gives a pathway for lessening reliance on administration only and guaranteeing equitable resource distribution for local government sectors. It should be mentioned that there are a few drawbacks to this study. For example, the sample size and study area were insufficient to accurately reflect the entire population and flood-affected area. Again, the results may not be applicable to other wetland regions with distinct social and cultural environments because traditional ecological knowledge and its connections to other social factors may vary between regions or situations. In any case, examining TEK can provide us with culturally significant, environmentally friendly, and inexpensive ways to tackle the flood crisis in Bangladesh. The results of this study also point to a number of areas for further investigation. For instance, future researchers could study this issue from gender or economic points of view. Again, studies can examine the impacts of implementing culture-specific TEK along with the scientific method. Moreover, one can also investigate why TEK is still a neglected phenomenon in policymaking and practice. On the other hand, the present study could be a source of secondary data for such future research. Another significance of this study is that it showed the importance of TEK in constructing inclusive and culturally relevant disaster governance. Overall, future policies and research should engage local communities like the wetland communities of north-eastern Bangladesh as active partners, ensuring that initiatives for inclusive development and disaster management are in line with culturally appropriate coping strategies that have proven effective over time.

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The Significance of Community-Based Adaptation Strategies in Sustaining Crop Production in Flood-Prone Northcentral Bangladesh

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ABSTRACT

Floods are a periodic disaster in Bangladesh, severely affecting agriculture, food security, and rural livelihoods, mostly alongside rivers. The Jamalpur district is situated in north-central part of Bangladesh and next to the Brahmaputra-Jamuna basins facing repeated flooding, damaging crops; hampering farming activities. In response to this challenge, community-based adaptation strategies have emerged as an important approach to increase resilience in flood prone areas. Main objective: This research explores the importance of community-based adaptation and explores how local farmers use their traditional knowledge, ecological practices, and strategies in the face of recurring floods. It also explores how floods have taken a positive turn in agriculture despite many adversities. Methods and data: Focusing on three flood prone unions in the Melandah Upazila of Jamalpur region data collection involved interviews, observation, FGDs, KIIs, case studies, pen and paper and audio-visual methods. The data are analysed in a thematic way. The sample size is about 40 out of a large population, as not all people are equally flood-affected or farmers. Purposive sampling to select experienced farmers, agricultural officers, local leaders, and nursery workers who can provide expert insights. To ensure data is gathered from relevant individuals with knowledge of adaptation strategies, judgmental sampling is also applied. Convenience sampling is used for quick, on-the-ground data collection, which helps capture immediate responses. Snowball sampling was employed to find new leaders using innovative techniques. Some farmers have achieved stability in agriculture through some communal knowledge, while others, including educated and new-age farmers, are adopting new methods that are also bringing success to the community agriculture sector. The study confirms that recent adaptation is not just a survival process but a dynamic process of environmental management and social innovation. Valuing traditional knowledge, promoting equitable distribution of community-based knowledge, and institutionalizing grassroots-led initiatives will achieve local resilience in the face of climate change in other regions like Jamalpur. Farmers should be informed about

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modern agricultural practices and traditional adaptation techniques should be preserved. Traditional practices such as silt soil and crop rotation can be combined with modern methods. Local agricultural officials should be aware of new processes and form cooperatives for collective access to inputs and market opportunities. Increased training opportunities on flood-adaptation techniques should be provided to all farmers, including women. Encouraging women and men to engage in farming can accelerate the community-based adaptation process.

JEL Classifications: Q01, Q18, Q54

Keywords: Community Based Adaptation Strategies, Reduced Vulnerability, Sustainable Agriculture, Food Security, Sustainable Livelihood.

INTRODUCTION

Climate change is increasingly intensifying extreme weather events worldwide, with flooding emerging as one of the most destructive hazards, threatening agriculture, livelihoods, food security across numerous regions and Bangladesh is not exceptional. Most development projects in the country address reducing vulnerability to disasters or poverty including floods, costal and riverbank erosion, droughts, landslides are the major climate induced hazards in Bangladesh (UNDP 2023). In addition to this, Bangladesh as rated as very high risk on the 2024 index with a score of 27.73 out of 100 (The Business Standard, 9 September). Bangladesh is one of the largest deltas in the world, shaped by the confluence of numerous rivers, some key rivers of Bangladesh are Padma, Meghna, Jamuna, Brahmaputra, Sitalakhya and Karnaphuli. Because of the structure of the land, Bangladesh slopes southwards along a gentle gradient from the north, thereby enabling all these rivers tributaries and distributaries to fall into the Bay of Bengal. The whole of Bangladesh except for the hilly areas of northeast and Southeast, is an extensive flat plain formed by rivers sediments (Banglapedia). Three main river basins of the country play a big role in floods in Bangladesh. From June, the Brahmaputra-Jamuna river started growing slowly. From the Frist week of July, rapidly increased and in the First half of July the Brahmaputra – Jamuna water crossed the danger of the danger (Dhaka Times). Since Jamalpur district is geographically located along the Brahmaputra basin, Jamalpur region experiences floods every year due to the overflowing of the waters of these two rivers. According to a report by Bangla Tribune (August 2021) Rafiqul Islam, Executive Engineer of the Jamalpur Water Development, the Jamuna river was flowing 55cm above the danger level, while at Jagannathganj Ghat Point in Sarishabari, it was 94 cm above the danger level. Over 300,000 people of t0 Unions in Dewanganj, Bakshiganj, Islampur, Melandah, Madarganj and Sarishabari Upazila were marooned. Altogether 8,000 hectares of farmland went under flood while classes in 259 primaries and 88 secondary schools remained suspended along with 19 community clinics.

Jamalpur is an agriculturally rich district in northcentral Bangladesh within the Mymensingh Division. Major agricultural products are rice, jute, sugarcane, mustard, ground nut and wheat. Flood also damage ceps every year in these regions. For instance, the 2021 floods affected 26 districts during the first phrase commencing from late June, thereby damaging around 76.000 hectors of crop. During the second phrase of mid-July about

83,000 hectares of land were destroyed with crop loss reaching almost 5 billion BDT. Also, around one million homes have submerged completely. Crops such as rice, jute, sesame, peanuts and vegetables were badly damaged (Karim 2020). Such reports are common during flood season in Bangladesh. These floods disrupt agricultural activities, reduce crop yields and threaten the Sustainable livelihoods of farmers who primarily depend on agriculture for their survival. In response to these challenges, community-based adaptation strategies have emerged as an important approach to increase resilience in flood prone areas. Community-based adaptation (CBA) aims to reduce the risks of climate change to the world's poorest people by involving them in the practices and planning adaptation which adds to current approaches to adaptation by emphasizing the social, political and economic drivers of vulnerability and by highlighting needs of vulnerable people (Forsyth 2013). Such strategies involve collective action by local communities, integrating indigenous knowledge and innovative practices to mitigate the adverse effects of floods on crop production in different countries. These strategies often include measures such as flood-tolerant crop varieties raised seedbeds. Water management techniques and diversified farming aimed at maintaining agricultural productivity and food security. The river island areas in Jamalpur have been suffering from flooding every year. Inhabitants of these areas are very dependent on crop cultivation for their livelihoods.

The seasonal crops ensure continuity from an assured annual income, and as this is a community susceptible to frequent flooding, the ways in which communities continue to adapt and produce crops, replanting after floods, would be interesting to learn. There have been successes in community-based adaptation processes in various districts in Bangladesh, with success exceedingly high where community-based adaptation is practiced. Despite their potential, the effectiveness of these community-based adaptation strategies in the Jamalpur district of Bangladesh remains unexplored. There is a need to assess their impact on crop production, identify barriers to their implementation and assess their role in ensuring food security and improving livelihoods. This study seeks to fill this knowledge gap by exploring the significance of community-based adaptation strategies to increase crop production in flood-prone study site, thereby contributing to policy recommendations for sustainable agricultural practices and resilient agricultural systems. The interest in understanding how flood-prone area communities adapt to floods and sustain their livelihoods through innovative crop production strategies has inspired the selection of research topic, "The Significance of Community Based Adaptation Strategies for Crop Production in The Flood-prone Northcentral Bangladesh"

AIM AND OBJECTIVE

The aim of this research is to investigate the significance of community-based adaptation strategies for enhancing crop production in the flood-prone areas of the Jamalpur region with a focus on identifying existing challenges and assisting strategies to ensure food security, strengthen agricultural resilience, and promote sustainable livelihoods among farmers.

Specific Objectives

- To identify prominent flood concerning challenges affecting crop production in study areas.

- To investigate and document different types of community-based adaptation strategies used in the northcentral Bangladesh flood-prone areas.
- To examine the impact of identifying adaptation strategies and their influence on crop land, productivity and livelihood condition in the region.

LITERATURE REVIEW

For this study, the author reviewed a range of journal articles, reports, and studies on community-based adaptation, flood management, and agricultural resilience. The key findings from these studies helped identify existing knowledge and informed the formulation of the present research.

TABLE 01: LITERATURE REVIEW			
QUERY TITLE	LITERATURE TITLE	FINDINGS	CITATION
COMMUNITY-BASED ADAPTATION	<i>Community based adaptation</i>	Community-based adaptation (CBA) is a climate change adaptation approach that involves vulnerable people in the design and implementation of measures. It emphasizes participatory methods, longer-term development, and social empowerment to reduce vulnerability. CBA emerged in the 2000s due to intensifying climate change impacts, evolving debates on adaptation methods, and connections to Community-Based Natural Resource Management.	(Forsyth 2017)
	<i>Operational Definition</i>	In this study, CBA is operationalized as farmer-led practices (e.g., crop rotation, silt management, raised beds) that enhance crop production, measured by their adoption rate among 40 respondents and impacts on yield recovery post-flood (e.g., via thematic analysis of FGDs showing reduced vulnerability).	Based on study area respondents
	<i>A Brief overview of Community-Based adaptation</i>	Climate Change Action (CBA) aims to support adaptation needs of vulnerable people in	(Kirkby 2015)

**FLOOD PRONE
AREA AND
CROP
PRODUCTION**

<i>Community-based adaptation to climate change: an overview</i>	developing countries, driven by climate change social injustices. With thousands of projects in Africa, Asia, and the Pacific Islands, CBA is a research agenda and Community of Practice, receiving increased international attention, including at the UNFCCC, COP. Community-Based Adaptation (CBA) involves vulnerable communities in climate adaptation efforts, supported by global networks. Initiatives like IIED's conferences, GICBA, we ADAPT, and CBA LinkedIn Group strengthen networks, enhance policy, and build capacity. These initiatives strengthen networks, enhance policy and planning, and build capacity for locally led climate adaptation.	(Ried 2015)
<i>Operational Definition</i>	Defined as low-lying unions (e.g., Mahmudpur, Nangla, Charbani Pakuria) along the Brahmaputra-Jamuna basin, operationalized by flood frequency (1-3 times/year), duration (7 days to 3 months), and severity (e.g., crop loss >50%), assessed through field observations and informant reports.	Assessed through field observations
<i>Increasing Crop Productivity in Flood Prone Areas</i>	Flooding is a prevalent issue in Asian and Pacific countries, causing significant human, crop, and animal losses. In South and Southeast Asia, 31 million hectares are flood-prone, with 13 million planted for deep-water rice. Bihar and Odisha are most susceptible, with Muzaffarpur, East Champaran, and Puri worst-hit. Floodwater stagnates for 6 to 15 days. Khari crops, especially rice, are damaged due to floodwaters.	(Mondal et.al 2020)

<i>Flood vulnerability and food security in eastern India: A threat to the achievement of the Sustainable Development Goals</i>	India has improved food security through economic growth, agriculture, and antipoverty programs. However, floods exacerbate hunger and poverty, affecting household food security. A study found three out of four households in flood-prone rural communities are food insecure. The study recommends integrative actions against the impacts of floods and makes valuable inputs and background for the policy makers of India.	(Sam et.al 2021)
<i>Investigating Flood impact on Crop Production under a Comprehensive and Spatially Explicit Risk Evaluation Framework</i>	With increasing frequency of catastrophic floods, effective agricultural flood management is especially essential in susceptible regions such as the Middle and Lower Yangtze River Basin (MLYRB). This study found flood duration to be the most accurate predictor of crop damage and has useful findings for improving flood risk governance in agricultural communities.	(Wang Liu & Chen 2022)
<i>Bangladesh: Impact of the floods on agricultural livelihoods and food security in the eastern part of the country – DIEM -Impact Report, September 2024</i>	In 2024, Bangladesh experienced severe monsoon flooding, affecting over one million small farmers and causing losses exceeding USD 457 million. The August-September floods, particularly damaging Aman rice, led to increased food insecurity, malnutrition threats, and increased rice imports.	(FAO 2024)
<i>Use of Indigenous Knowledge in Strategies for Disaster Risk Deduction for Flood Disaster: The Study of Tharu Community of Bardiya District of Nepal</i>	The paper explores the impact of floods on agricultural productivity in Bangladesh. Overall findings indicate that agricultural productivity is higher in flood-prone districts, and normal floods increase yields and extremely high floods decrease them.	(Dhungel 2011)

**COMMUNITY-
BASED
ADAPTATION
DURING
FLOOD**

<i>Operational Definition</i>	Operationalized as the use of resilient crops (e.g., flood-tolerant varieties like Binadhan-7) and techniques (e.g., mulching, diversification), measured by outcomes like stable crop yields (e.g., mustard post-flood) and reduced input costs, evaluated via case studies and productivity metrics from farmers.	Evaluated via case studies of field informants
<i>Integrated Flood Management Tools series -Community-based Flood Management</i>	For over 30 years, community participation in flood management and development planning has been crucial. Prioritizing bottom-up strategies allows communities to contribute to flood resilience. Floods impact 520 million people annually and kill up to 25,000 globally. Recent floods highlight the need for community-based flood control.	(WMO 2017)
<i>Use of Indigenous Knowledge in Strategies for Disaster Risk Deduction for Flood Disaster: The Study of Tharu Community of Bardiya District of Nepal</i>	The study explores the use of indigenous knowledge in Nepal's Tharu community for disaster risk reduction, highlighting their traditional methods of forecasting and river embanking, but highlighting the need for scientific remedies in response to climate change.	(Dhungel 2011)
<i>COMMUNITY-BASED ADAPTATION TO FLOOD: A SYSTEMIC LITERATURE REVIEW</i>	The paper reviews 25 English-language articles on community mobilization strategies for floods, focusing on developed nations. It identifies new research areas, evolution of publications, author collaboration patterns, and future directions for CBA solutions.	(Danraka et.al 2024)
<i>Perceived community-based flood adaptation strategies under climate change in Nepal</i>	Local flood coping strategies in Nepal's Terai districts involve local flood prediction, communication, relief, and safe haven creation. Post-flood operations coordinate with government departments,	(Devkota et.al 2014)

COMMUNITY-BASED ADAPTATION IN CROP PRODUCTION DURING FLOOD		highlighting the importance of locally relevant adaptation methods in developing effective flood resilience strategies.	
	Operational Definition	In the study, it is operationalized as household-level food reserves (e.g., rice for 6 months from diversified crops) post-flood, measured by farmer-reported reductions in insecurity and integration of strategies like bag farming, analysed through livelihood outcomes in thematic data.	Analysed through livelihood outcomes in thematic data.
	<i>Assessing adaptive capacity of climate vulnerable farming communities in flood prone areas: Insights from a household survey in South Punjab, Pakistan</i>	This paper evaluates the adaptive capacity of farmers in flood-risk districts of South Punjab, Pakistan, based on data from 448 farmers. Results show knowledge of crop markets and climate sensitivity motivates joint strategies, while experience and secondary income discourage them. The paper supports multidisciplinary adaptation methods based on social, economic, and environmental considerations.	(Aqib et.al 2024)
IN CONTEXT OF	<i>Farm households' flood adaptation practices, resilience and food security in the Upper East region, Ghana</i>	The study found that flood adaptation measures improved food security in farm households in Ghana's Upper East Region. Factors affecting adaptation included age, education, extension coverage, credit, farm size, and flood awareness. Non-farm adaptation was influenced by marital status, education, and flood awareness. Strengthening extension services, raising flood awareness, and enhancing non-farm employment could alleviate flood impacts.	(Alhassan 2022)
	Operational Definition	Operationalized as lowered crop losses (e.g., from 75% to partial via strategies) and enhanced	From study area field

BANGLADESH CBA STRATEGY IN CROP PRODUCTION DURING FLOOD		livelihoods, measured by pre/post-flood comparisons in FGDs and KIIs, focusing on marginalized groups like women farmers.	informants
	<i>Effects of Flood on Agricultural Productivity in Bangladesh</i>	The study explores floods' impact on Bangladeshi agriculture, revealing both destructive and beneficial effects. It compares flood-prone and non-flood-prone districts, finding higher agricultural productivity in flood-prone areas. Normal floods, however, may increase productivity post-flood.	(Banerjee 2010)
	<i>Vulnerability and adaptation in flood-prone ecosystems of Bangladesh: a case study of rice farming households</i>	The study explores flood vulnerability and adaptation in Bangladesh's flood-prone ecosystems, focusing on rice farming households. Despite recurrent flooding, the country has managed to maintain a rice surplus since 2007, thanks to strategic planning, food diversification, stockpiling, and strong public distribution systems. Policy integration for flood adaptation is identified.	(Rahman et.al 2025)
	<i>Impact of farmers' participation in community-based organizations on adaption of flood adaptation strategies: a case study in char-land area of Sirajganj district Bangladesh</i>	The study examines the impact of community-based organizations (CBOs) on Bangladeshi farmers' flood adaptation strategies. Results show that CBO participation significantly supports farmers' adoption of flood measures, with adopters implementing 3.76 more measures than non-adopters. To implement flood adaptation measures, CBOs need to be strengthened and institutionalized.	(Faruq & Maharjan 2022)
	<i>Floating Gardens of Bangladesh: A community Based adaptation for</i>	Bangladesh faces severe floods affecting over one million people annually, forcing many to leave their villages. Floating gardens, a	(CANSA 2024)

MAJOR THEORIES APPLIED AND ALIGNMENT WITH STUDY OBJECTIVES

Combating Climate Change	potential adaptation to climate change, are suggested but not yet proven effective in food security, disaster risk reduction, or climate change adaptation. Understanding their strengths and limitations is crucial.	
Crop adaptation processes to extreme floods in Bangladesh: A case study	The study uses a multi-method approach to investigate flood adaptation in Islampur, Bangladesh, focusing on the resilience of vulnerable farmers and their long-term strategies. It emphasizes community-based efforts and autonomous adaptation in policy formulation.	(Yunus 2015)
Sustainable Livelihood Framework (SLF)	Groups resources into five capitals (human, natural, financial, social, physical) to analyze how households achieve positive outcomes amid vulnerabilities. In the study, it maps assets like skills (human), fertile soils (natural), and networks (social) to adaptation strategies. • (Identify flood challenges): SLF identifies vulnerabilities (e.g., degraded natural capital from siltation). • (Document CBA strategies): Highlights how capitals enable strategies (e.g., social capital for knowledge sharing). • (Examine impacts): Assesses outcomes on productivity and livelihoods (e.g., financial capital from diversified crops).	(Chambers & Conway, 1992; DFID, 1999)
Resilience Theory	Focuses on absorptive (endure shocks), adaptive (adjust practices), and transformative (fundamental changes) capacities in socio-ecological systems. The study uses it to evaluate how	(Folke, 2006; Walker et al., 2004).

strategies rearrange assets during floods.

- (Identify challenges): Frames floods as shocks testing absorptive capacity (e.g., crop submergence).
- (Document strategies): Documents adaptive moves (e.g., raised beds) and transformative innovations (e.g., cocopeat).
- (Examine impacts): Measures resilience through recovery (e.g., yield stability) and transformation (e.g., reduced vulnerability).

Source: Developed by Researcher

Gaps in Existing CBA Context

- The CBA is established approach for Bangladesh (e.g., Sirajganj, Islampur, Char Land) phenomenological adversities but it has hidden in the context of study sites (Melandah, Jamalpur) though it is highly and repeatedly suffered by flooding. This became a priority to focus CBA based study in selected region.
- Jamalpur is an agriculturally sound region but suffers adverse crop losses regularly, understanding and discussing the community-based knowledge is crucial for developing effective policies to support them.

Knowledge Gaps in the Study

The title focuses on CBA's significance in sustaining crop production in flood-prone northcentral Bangladesh (specifically Jamalpur). Based on the paper and reviewed literature, gaps include:

- Geographic Specificity: Limited studies on Jamalpur/Melandah (paper notes none found); most focus on coastal (e.g., southwest) or haor areas (e.g., northeast), ignoring northcentral Brahmaputra basin nuances like variable flood irregularity (e.g., recent absence causing soil decline) (gap in Banerjee, 2010; Rahman et al., 2025; expanded by search: no Jamalpur-specific CBA papers post-2024).
- Gender and Inclusivity: Minimal exploration of women's roles (e.g., bag farming by Aleja Begum in paper), despite NAP (2023) emphasis; gaps in equitable impacts and barriers for marginalized groups (e.g., landless farmers) (Khatun, 2025; Agricultural adaptation..., 2024).
- Long-Term Impacts and Scalability: Short-term productivity gains documented, but lacks longitudinal data on sustainability (e.g., 5-10 years' post-adoption) or scaling via institutions (Faruq & Maharjan, 2022; Danraka et al., 2024). Economic viability (e.g., cost-benefit of cocopeat) understudied.

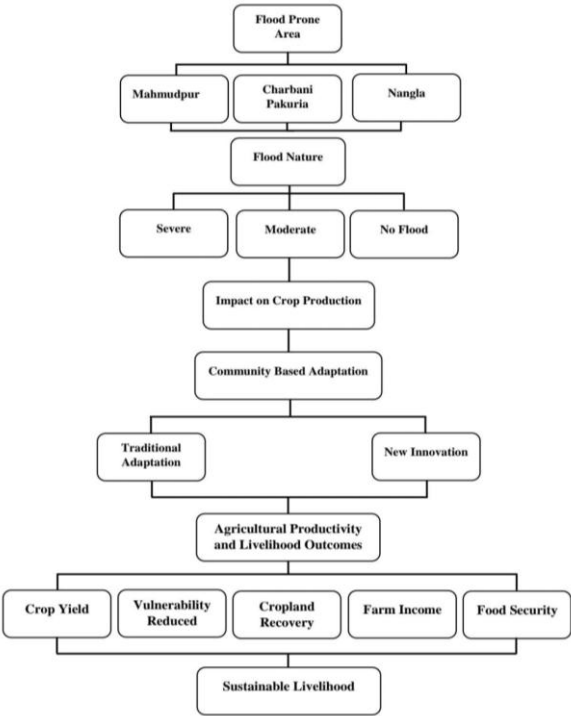
- Integration of Modern vs. Traditional: Gaps in hybrid models (e.g., combining silt with mulching) and their transformative resilience (Folke, 2006 alignment weak in northcentral contexts) (Community-Based Adaptation: An Analysis..., 2019).
- Climate Projections: Limited linkage to future scenarios (e.g., intensified floods per UNDP, 2023), focusing on past events; gaps in predictive modelling for CBA efficacy (Wang et al., 2022).

Addressing these could strengthen the study, e.g., via comparative analysis with coastal regions or gender-focused surveys from the above literature review in table 1, Bangladesh appears to have many adaptation strategies to face floods, even in agriculture there are many adaptation strategies in other fields. But no research was undertaken on community-based crop production adaptation strategies for flood prone areas in Jamalpur district. The researcher is unable to locate any research on community-based adaptation strategies for crop production in flood prone areas of Jamalpur district. Following this consideration, the researcher felt inclined to conduct the topic as research.

MATERIALS AND METHODOLOGY

Floods are observed every year in the research area. The pattern of floods is not the same, such as: sometimes there is no flood, sometimes there is severe flood, and sometimes there is moderate level flood. But when there is a flood, a major impact can be observed on the crop production of the research area. It is presented below.

FIGURE 01: RESEARCH DESIGN

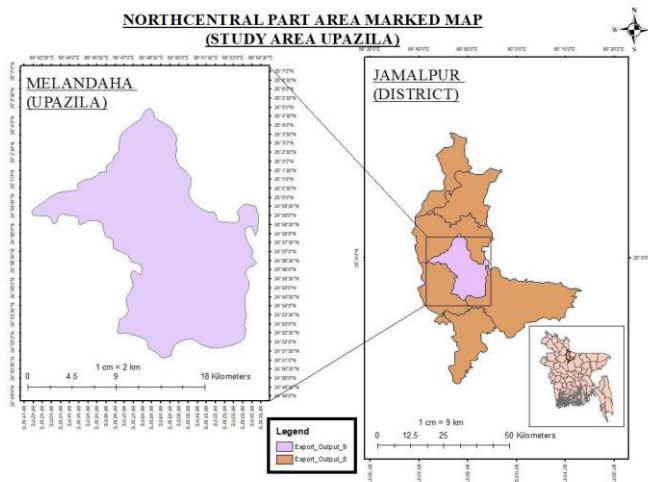


Source: Developed by Researcher

The above study plan figure 01 illustrates flood prone site at the apex of framework including flood nature. How flood affected on crop production and relevant communities make resilient by practicing CBA get top concern and showing transparently. The CBA approaches (i.e. traditional adaptation, new innovation) lead to ensure agricultural productivity and livelihood outcomes in a row displaying bottom of the framework. The circulating process is very comprehensive that push to make sure agricultural productivity; sustainable livelihood as well.

Study Location

Melandah Upazila of Jamalpur district selected on account of surveyed. Study site boundary: Melandah Upazila situated in midcentral part of Jamalpur district. Jhinai River, Old Brahmaputra River, Alai River, Madardah River flow in this district. (Banglapedia, 2023). The field conducted in some char areas of Melandah Upazila, specifically Mahmudpur Union No. 3; Nangla Union No. 4; And Charbani Pakuria 7 No. Union. Usually, Teesta barrage water floods these areas through Jamuna river. Also, the water of Brahmaputra river from the north is the cause of flooding in these areas. In map 01 Jamalpur district identified in left side and highlighted Melandah Upazila right side.

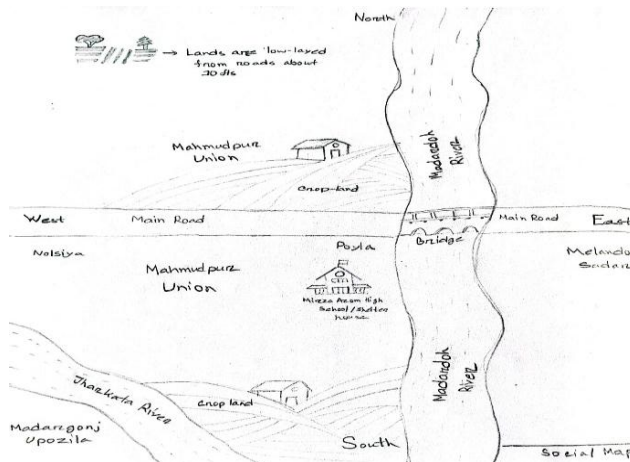


Source: Developed by Researcher with ArcGIS

Hand Drawn Social Mapping of Study Site

Mahmudpur Union 01

The social map 01 illustrates Mahmudpur union alongside with the Madardoh river which is a branch of the Jamuna river. Madardoh River flows north to south in Mamudpur Union. A big bridge has been constructed on the way from Melandah Sadar to Poyla and Nowlshia villages. The bridge is originally built over the Madardoh River. When the water of Jamuna river increases, the water of this river



increases and flooded the surrounding areas. The focus land residing approximately 10 feet below off the road which leads flooding first. Jharkata river flows towards the south side of Nalsia village i.e. towards the end of Melandah Upazila and towards the beginning of Madarganj. Through this river Nalchiya village turn flooded.



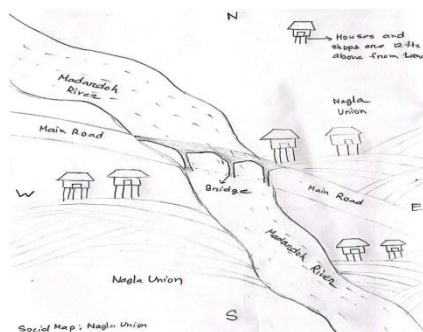
Source: Hand Drawn by Researcher
Mahmudpur Union 02

The social map 02 illustrates additional side of Mahmudpur union's Ruknaipara and Puthiyapara village where both turns divided by Urmabil river. The villages are enriched with croplands. In the way of this villages nearly three new bridges being constructed. Houses and shops are about 12 feet higher than the cropland which means the land is low-lying. In these villages, the flood water comes from the Urmabil or Burungi river. Urmabil is also the branch of the Yamuna River which ends to Sorishabari.

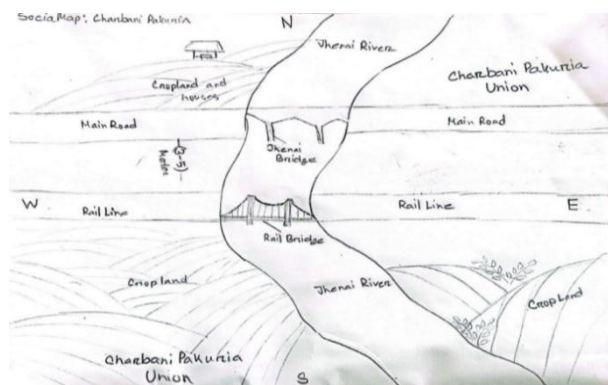
Source: Hand Drawn by Researcher

Nangla Union 03

The social map 03 has drawn about the Nangla Union. The Madardoh River is also flown to the northern side to the southeast part of this union. Most of the houses are 12 feet higher than the roads in this union. There is much land seen to be accumulated with flood water. Here most of the land harvested with paddy; few of those harvested with mustard and other lands were empty with dry soil. There were two new bridges in the way of the Nangla union which are very high from the basement. That's why the farmers are mostly affected by floods.



Source: Hand Drawn by Researcher



Charbani Pakuria Union 04

The social map 04 demonstrates Charbani Pakuria Union. Jhenai river flows through this union. There are two bridges constructed over the river where one is a railway bridge and local bridge. The Jhenai River is also a branch of the Yamuna River. The two bridges are 3 to 5 meters away from one another. The right side of railway bridge shown endless cropland where

the farmers were working. Though the land is combined for many owners but all in raw genuinely unparalleled.

-Source: Hand Drawn by Researcher

Research Method and Data Collection Tools

The study act in accordance with qualitative research approach that emphasizing an exploratory and thematic analysis. A semi-structured questionnaire was conducted to collect primary data which driven in line with a methodological pathway of direct participation observation, in-depth interviews, key informant interviews (KII), focus group discussion (FGD), audio-visual techniques, and pen-and-paper techniques. Harmonious and polite behaviour maintained while collecting data from the informants for ensuring credibility and ethical consideration. And secondary data from various online journals, books, previous studies, and reports that provide insights into the topic of interest. The study obtained dependent variable (DV) as agricultural productivity and livelihood outcomes (i.e. crop yield, vulnerability reduced, cropland recovery, farm income and food security) while independent variable (IV) obtained as community-based adaptation strategies (i.e. flood tolerant crop varieties, crop diversification, traditional techniques like silt soil and crop rotation as well as relevant community's everyday behaviour).

After completing a semi-structured, open-ended questionnaire, the villagers participated in two focus group discussions. The FGDs covered the study's main subjects, such as local coping mechanisms under challenging situations. There were eight to 10 people in each focus group. The interview texts were coded using preliminary ideas, the data were grouped to determine major themes, and the results of the focus groups and interviews were examined in relation to each topic to extract important conclusions. As a result, other data collecting technologies are also employed, such the Learning Space Toolkit for focus group discussions and Google Forms for questionnaires.

Sampling criteria

Farmers, common flood-affected locals, local leaders, nursery owners, and agricultural officers were all included in this research sample, which was selected using a mixed sampling technique. The sample size is just around forty persons since not everyone is equally affected by farms or floods. To choose seasoned farmers, agricultural authorities, community leaders, and nursery staff who can provide informed viewpoints, the purposive sampling approach is employed. To ensure that information is gathered from relevant individuals who are knowledgeable about adaptation strategies, judgmental sampling is employed. Convenience sampling helps obtain rapid replies by collecting data quickly on the ground. Additionally, utilizing cutting-edge methods, snowball sampling was used to find hidden adaption leaders.

Theoretical Framework

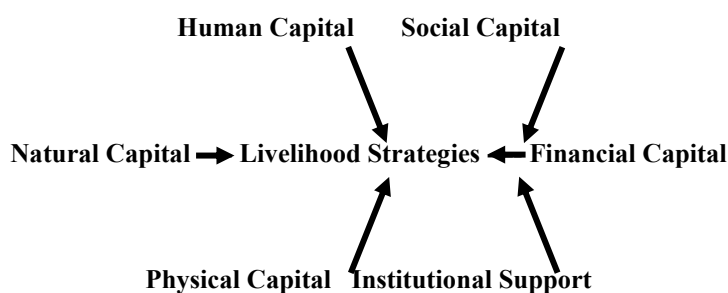
This study draws on two complementary lenses the Sustainable Livelihood Framework (SLF) and a resilience perspective to explain how farm households in flood-prone Jamalpur

keep crops in the ground despite recurrent shocks. The SLF helps map which resources people rely on, while the resilience view focuses on what people do with those resources when water rises again and again.

Sustainable Livelihood Framework (SLF)

Early SLF work (Chambers & Conway, 1992; DFID 1999) groups rural resources into five broad “capitals”: human, natural, financial, social and physical. In Jamalpur, these show up in familiar ways—skills and know-how around flood timing, fertile but risk-exposed soils, alternative farming benefit, neighbourhood networks that share seed, and bits of infrastructure like raised storage. What matters is the mix: the same household rarely depends on a single capital. A practical reading for this study is that (i) strengthening people and soils widens options at cultivating time, (ii) modest finance and basic infrastructure keep production moving after losses, and (iii) cooperation turns many small assets into something more reliable.

FIGURE 02. SUSTAINABLE LIVELIHOOD FRAMEWORK

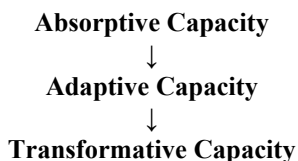


Source: Adapted from DFID, 1999

Resilience Theory

Resilience thinking (e.g., Folke; Walker and colleagues) looks at capacity rather than inputs: can a farming system absorb a hit, adjust, and if needed change shape? In this setting, absorptive capacity includes flood-tolerant varieties and stored grain; adaptive capacity shows up as shifting calendars, raised beds, mixed cropping; transformative capacity is the bigger, slower work better drainage, seed systems that reach everyone, climate-smart tools that change the local baseline.

FIGURE 03. RESILIENCE FRAMEWORK



Source: Adapted from Folke, 2006; Walker et al., 2004

Used together, SLF tells us what is on the table; resilience tells us how it is rearranged when rivers breach their banks. For example, a neighbourhood seed or

knowledge -sharing habit (social capital under SLF) becomes a rapid replanting mechanism when floods recede (an adaptive move in resilience terms). That combination—asset-based and shock-responsive—explains why community-led practices in Jamalpur can keep yields from collapsing across repeated flood seasons.

Research Ethics

Ethical considerations were strictly maintained throughout the fieldwork in Melandah Upazila to ensure the dignity and rights of the flood-affected communities. Since the respondents are from rural backgrounds, the researcher took special care to explain the study objectives in the local dialect before every Key Informant Interview (KII) and Focus Group Discussion (FGD). Verbal consent was taken from each participant, making it clear that their involvement was voluntary. To protect privacy, personal names were removed during the data analysis phase. When quoting specific stakeholders like agricultural officers or local leaders, permission was sought; otherwise, they were referred to by their roles. As the study involved close interaction with villagers, polite behaviour was maintained, and interviews were conducted at times that did not hamper their daily farming activities. All collected data, including photos and audio, were used solely for this research purpose.

Limitations of the Research

Although this study brings out important insights regarding community-based adaptation in the Jamalpur region, there are some limitations to consider. First, the sample size includes about 40 respondents. While this number was sufficient to understand the major themes and local strategies, it may not statistically represent the entire population of flood-prone areas in Bangladesh. Second, the study was geographically limited to Mahmudpur, Nangla, and Charbani Pakuria unions. Therefore, the findings might not fully capture the adaptation nuances of other areas in the Brahmaputra-Jamuna basin that face different levels of flood intensity. Third, the use of convenience and snowball sampling helped in gathering data quickly from experienced farmers, but it might have excluded some marginalized individuals in remote char areas who were harder to reach. Finally, since the data relies on the farmers' memory of past flood events and crop yields, there is a possibility of recall bias.

RESULTS

The findings are presented in line with the specific objectives of the study from qualitative data collected through interviews, FGDs, KII, observation and thematic analysis of 40 purposively selected respondents (farmers, leaders, officials, nursery workers) from three flood-prone unions (Mahmudpur, Nangla, Charbani Pakuria) of Melandah Upazila of Jamalpur district. Key themes emerged through coding and grouping of data, with emphasis on flood patterns, community responses and livelihood outcomes. The themes include hydrological variability, agricultural resilience, socio-economic constraints, indigenous innovation and institutional gaps.

TABLE 02: FLOOD PATTERN IN STUDY AREA

UNION /VILLAGE	FREQUENCY OF FLOOD	FLOOD SOURCES	DURATION OF FLOOD	SEVERITY / NATURE OF FLOOD	SEVERITY RANKING
MAHMUDPUR (POYLA & NALCHIYA)	1-2 times/years	Water comes mainly from Yamuna river via Madardoh and sometimes from Jharkata rivers	(7-15) days to 1 month But Flood stay longer in the past	Cropland and roads submerged every year houses rarely flooded now. Boats are used for transportation. Severity lower than past (1988 was the worst)	Medium
MAHMUDPUR (PUTHIYAPARA & RUKNAIPARA)	2-3 times/years In previous about 6 months	Flood occurs from Yamuna river via Madardoh but specially from the branch Urmabil or Burungi river	15 days to 1 month	Severity depends on source of direction; variable but significant crop loss as cropland submerged every year.	High
NANGLA UNION	2-3 times/years	Water overflows from Yamuna river	(1-3) months	90% lands are low-lying shops and houses builds on raised platform. Severity moderated by bridges but still regular	High
CHARBANI PAKURIA UNION (UTTARPARA, JHENAI BRIDGE AREA)	Last 3 years faced minimal flooding Previously annual	Flood occurs mainly from Yamuna river via Jhenai river	Water used to last up to 3 months.	Earlier: severe & regular floods. In recent time irregular & less severe. Farmers concern about soil fertility decline due to irregular flood.	Low

Source: Developed by researcher

From table 2 it is clear that floods occur almost every year in these unions, but the frequency, duration and intensity of floods vary from village to village, depending on the proximity of the river, the elevation of the land and the infrastructural changes (e.g., construction of bridges and high-rise buildings). In some areas, floods last only a few weeks, while in others they can last for months. In most cases, cropland is submerged every year that means crops are affected annually.

Farmers in the study area face multiple climate-driven and structural challenges that disrupt crop production. The following table categorizes these key challenges and presents direct evidence from field interviews Table 03 is presented below-

TABLE 03: PROMINENT FLOOD CONCERNING CHALLENGES AFFECTING CROP PRODUCTION IN STUDY AREAS

Challenge Category	Specific Challenge	Detailed Description & Impact on Crop Production	Evidence from Field Study (Key Informants & Locations)
1. Hydrological & Climatic	1.1 Predictable Annual Monsoon Flooding	Annual inundation caused by overflow from the Yamuna and distributary rivers (Madardoh, Jharkata, Urmaburungi). Leads to damage of crops, homes, roads, and yearly loss–recovery cycles.	• <i>Ahad Jamal Sheikh, Mahmudpur</i>: “Every year their area gets flooded... we had to travel by boat.” • <i>Roshanara Begum, Nangla</i>: “Every year there is a flood... due to the overflow of water from the Yamuna river.”
	1.2 Variable Flood Duration & Intensity	Flood duration ranges from short (Seriban: 7–15 days) to prolonged (Buriban: 3–6 months). Longer floods destroy crops entirely and reduce options for post-flood cultivation.	• <i>Majnu Mia, Mahmudpur</i>: Water used to stay for months; now usually less than a month. • <i>Sulaiman, Nangla</i>: Classified floods as Seriban, Bauban, Buriban. • <i>Nurul Islam, Ruknaipara</i>: Water stays up to six months, 2–3 times a year.
	1.3 Multi-Source and Directional Inundation	Floodwaters enter from multiple rivers, expanding severity and complicating local mitigation. Spatial variation creates unpredictable risk.	• <i>Mukul & Samiul, Nalchiya</i>: Water from Jharkata enters houses even if one side of the road is dry.
	1.4 Recent Irregularity & Absence of Floods	Sudden decline in expected floodwater in some areas leads to soil nutrient loss, lower moisture, and chemical accumulation.	• <i>Md. Badsha, Charbani Pakuria</i>: “Earlier there were regular floods but now water is less.” • <i>Nazrul, Charbani Pakuria</i>: “For the last three years, floodwater does not come.”
2. Agronomic & Environmental	2.1 Direct Crop Submergence & Loss	Standing crops—especially Aman—are destroyed, causing large annual yield losses, reduced income, and heightened food insecurity.	• <i>Abbas Ali, Mahmudpur</i>: “50% crops are lost every year.” • <i>Sulaiman, Nangla</i>: 60% of his crops destroyed.
	2.2 Post-Flood Pest & Disease Outbreaks	Stagnant water increases insect and fungal diseases, causing secondary losses for remaining or newly planted crops.	• <i>Ahad Jamal Sheikh</i>: Insect attacks increase after recession. • <i>Mahiron, Charbani Pakuria</i>: Showed infected eggplants; blamed lack of normal flooding.
	2.3 Excessive Siltation	Heavy silt deposition buries plants, alters soil structure, and increases labor for removal. Moderate silt is beneficial, but excess is destructive.	• <i>Md Johurul Islam, Puthiapara</i>: Excess silt is removed and sold. • <i>Roushanara, Nangla</i>: Community floats the silt away.
	2.4 Soil Health Degradation	Either prolonged flooding or absence of flooding decreases natural fertility, moisture, and organic replenishment. Leads to dependency on fertilizers.	• <i>Meghu, Charbani Pakuria</i>: Land fertility declining without floods. • <i>Nazrul</i>: Land “lost its moisture.”
3. Socio-Economic & Institutional	3.1 Inadequate & Unequal Access to Support	Government/NGO aid is insufficient, politicized, or poorly distributed—marginal farmers often excluded.	• <i>Chaleha & Sonahar Mondol, Mahmudpur</i>: “NGOs list their own people... villagers are

		disappointed.”
3.2 High Cost of Inputs	Increased fertilizer/pesticide demand raises expenses and debt, especially in non-flood years.	• <i>Mahiron, Charbani Pakuria:</i> Fertilizer use increased by 2 kg/bigha with poor results.
3.3 Infrastructure Damage & Isolation	Floods damage rural roads/bridges, limiting market access and emergency mobility.	• <i>Researcher’s Observation:</i> Roads collapsed; boats were the only transport.
3.4 Knowledge & Labour Gaps	Young people avoid agriculture; traditional knowledge concentrated among elderly farmers, risking future adaptation capacity.	• <i>Researcher’s Observation:</i> Most farmers interviewed were elderly; very few under 30.

The table highlights how environmental stress, declining soil health, pest outbreaks, high input costs, and limited institutional support combine to weaken agricultural resilience. These pressures explain the urgency of local adaptation.

Communities respond to recurring floods through a mix of traditional knowledge, practical innovation, and modern techniques. The table below outlines the major adaptation strategies practiced across the study area. Table 04 is presented below.

TABLE 04: DIFFERENT TYPES OF COMMUNITY-BASED ADAPTATION STRATEGIES USED IN THE NORTHCENTRAL BANGLADESH FLOOD-PRONE AREAS

Adaptation Category	Specific Practice	Detailed Description & Purpose	Evidence from Field Study (Key Informants & Locations)
1. Structural & Physical Adaptations	1.1 Housing & Shop Elevation	Homes and shops raised 7–8 feet above ground to protect from water, allowing families and businesses to function during floods.	• <i>Nurul Islam & Kala Mandal, Ruknaipara:</i> Built high-plinth houses. • <i>Khobijol Rahman, Nangla:</i> Shops constructed on high structures.
	1.2 Strategic Road/Bridge Construction	Culverts and bridges improve connectivity during moderate flooding, though may alter water flow.	• <i>Kamal, Puthiipara:</i> Several new bridges built, reducing suffering.
	2. Agricultural & Livelihood Adaptations		
	2.1 Dynamic Crop Selection & Rotation	Farmers choose crops based on flood timing and soil type. Jute favored during flood-prone months; diversified cropping for varying soils.	• <i>Mukul, Mahmudpur:</i> Jute survives floods better than paddy. • <i>Rasul & Kamal, Puthiipara:</i> Grow mustard, maize, pepper, etc., based on micro-soil differences.
	2.2 Post-Flood Catch Cropping	Quick-growing crops (mustard) planted immediately after flood recession to recover losses.	• <i>Kala Mandal, Ruknaipara:</i> Mustard planted after Roa crops die. • <i>Roushanara, Nangla:</i> Mustard preferred after severe flood damage.
	2.3 Fast-Yielding & Resilient Varieties	Quick-maturing rice like Binasadha allows harvest between flood recession and winter onset.	• <i>Ahad Jamal Sheikh:</i> Sprinkles Binasadha after floodwater recedes.
	2.4 Strategic Land Fallowing	Land left uncultivated if long floods are predicted, preventing wasted inputs.	• <i>Rasul & Kamal:</i> Some farmers avoid planting during expected long flooding.
3. Indigenous Knowledge & Forecasting	3.1 Bio meteorological Forecasting	Observing wind direction, cloud patterns, and environmental cues to predict floods.	• <i>Kala Mandal, Ruknaipara:</i> South-to-north wind + black clouds indicate impending flood.
	3.2 Folk Flood Classification	Traditional categories (Seriban, Bauban, Buriban) help communities assess severity and plan responses collectively.	• <i>Sulaiman, Nangla:</i> Explained three flood types.

4. Modern & Innovative Techniques	4.1 Cocopeat Nursery Technology	Soil-less cocopeat used to produce healthy, uniform seedlings—especially effective for rapid replanting after floods.	• <i>Ruman & Rabiul, Mahmudpur:</i> Cocopeat chili seedlings yielded earlier than traditional methods.
	4.2 Sarjon (Raised Bed) Cultivation	High raised beds for vegetable and fruit cultivation in chronically waterlogged soils.	• <i>Dr. Ruman, Mahmudpur:</i> Demonstrated success growing gourds using Sarjon.
	4.3 Bag/Sack Farming & Mulching	Sack farming enables rooftop or poor-soil cultivation. Mulching regulates moisture, temperature, and reduces weeds.	• <i>Aleja Begum:</i> Sack farming on rooftop. • <i>Khairul Hasan:</i> Successful ginger/garlic in sacks; promotes poly mulching.
	4.4 Diversification into New Cash Crops	Adoption of crops like Carpus cotton that tolerate dry/clay soils where floods have decreased.	• <i>Khalil, Charbani Pakuria:</i> Carpus cotton performs well in dry soil conditions.
5. Institutional & Behavioural Adaptations	5.1 Active Knowledge Seeking	Younger farmers attend government trainings and learn from local innovators to adopt modern practices.	• <i>Rabiul:</i> Received modern agriculture training.
	5.2 Cultural Acceptance of Floods	Many view floods as ultimately beneficial, replenishing soil fertility—reducing stress and supporting long-term planning.	• <i>Abbas Ali:</i> Considers floods good for soil fertility. • <i>Nure Alam:</i> No special strategy needed; flood makes soil fertile.

Together, these strategies demonstrate strong community resilience: farmers blend indigenous forecasting with new technologies to survive shifting flood patterns. However, modern methods remain unevenly adopted due to resource and knowledge gaps.

To understand the effectiveness of local adaptation, the following table links key strategies with their impacts on land productivity and farmers' livelihoods. Table 05 is presented below.

TABLE 05: THE IMPACT OF IDENTIFYING ADAPTATION STRATEGIES AND THEIR INFLUENCE ON CROP LAND, PRODUCTIVITY AND LIVELIHOOD CONDITION IN THE REGION

Adaptation Strategy	Description of Strategy	Impact on Farmland & Productivity	Impact on Farmers & Livelihoods
Strategic Crop Selection & Rotation	Farmers match crops to soil characteristics and flood tolerance. Jute is chosen for waterlogging tolerance; mustard for fast, post-flood recovery; wheat, maize, and certain vegetables are cultivated in sandy or mixed soils.	Positive: Helps maintain production even during flood years. Jute withstands seasonal floods, while mustard provides rapid post-flood yields. Soil-crop matching increases efficiency and resilience. Negative: Severe, long-duration floods can still destroy all crops despite careful planning.	Positive: Provides a steady, though sometimes reduced, income. Mustard has become a crucial cash crop allowing households to secure food reserves (e.g., “rice for six months”). Negative: Requires deep traditional knowledge, experience, and constant observation of changing flood patterns.
Soil Management & Silt	Farmers incorporate beneficial silt deposited by floods	Positive: Enhances soil fertility and reduces dependency on	Positive: Reduces production costs and increases soil health. Many farmers consider moderate flooding

Utilization	to restore nutrients. Excessive silt is removed. Land is classified as sandy, silt-rich, or mixed (bele doash) to guide targeted crop selection.	chemical fertilizers. Floods help wash away residual pesticides and salts, rejuvenating the land. Negative: In years without floods, soils lose moisture and nutrients, leading to poor yields, increased fertilizer use, and pest outbreaks.	essential for good harvests. Negative: Removing excess silt is labour-intensive. Absence of floods is now seen as a major threat to livelihood sustainability.
Land Elevation & Local Infrastructure Development	Farmers raise homestead land and construct houses and shops on elevated plinths (7–8 feet). Local authorities build bridges and raised roads to maintain connectivity.	Positive: Protects property from flood damage and prevents loss of stored crops and household assets. Negative: Raised structures may unintentionally redirect water flow, causing increased flooding in adjacent areas.	Positive: Reduces physical suffering and economic losses during floods. Better roads and bridges improve mobility and access to markets and services. Negative: Requires substantial financial investment, making it difficult for poorer households.
Modern Agricultural Techniques (Cocopeat, Mulching, Sarjon)	Cocopeat: Soil-less medium producing strong, uniform seedlings. Mulching: Plastic mulching conserves moisture, controls weeds, and moderates soil temperature. Sarjon: Raised-bed farming for crops in waterlogged areas.	Positive: Cocopeat ensures early post-flood planting. Mulching improves water efficiency and crop health. Sarjon makes previously uncultivable land productive. Negative: Knowledge-intensive methods with higher initial costs; adoption remains limited.	Positive: Early adopters (e.g., Rabiul, Ruman) experience higher yields, quicker returns, and more stable income. Negative: Large knowledge and resource gaps between progressive and traditional farmers. Limited training access inhibits widespread adoption.
Alternative Cultivation Techniques (Bag/Sack Method)	Farmers grow ginger, garlic, onions, and vegetables in soil-filled bags on rooftops or homesteads.	Positive: Enables cultivation independent of flood-prone fields. Offers high productivity per unit and good disease control. Negative: Limited scalability; primarily suited for small household-level production.	Positive: Provides supplementary income and strengthens household food security. Women (e.g., Aleja Begum) often adopt this technique, increasing their role in farming. Negative: Requires initial setup cost and ongoing labour for soil preparation and maintenance.

The table shows that while most strategies improve soil health, stability, and yields, they also introduce challenges related to cost, labour, and unequal access. The benefits are clear—but not evenly distributed.

Institutional support shapes how farmers manage floods. The table below summarizes the role, reach, and limitations of government and NGO interventions reported by the community. Table 06 is presented below-

TABLE 06: ROLE OF GOVERNMENT AND NON-GOVERNMENT ORGANIZATIONS IN LOCAL AGRICULTURE DURING FLOODS

Source	Support Received (Seeds/Inputs)	Training & Knowledge Dissemination	Overall Perception & Challenges
Local Farmers (e.g., Chaleha, Sonahar Mondol, Sulaiman)	Limited and Unequal Support: Farmers report receiving very little assistance. Seed distribution is scarce and symbolic (“1–3 kg” packets). NGOs mostly collect data rather than providing tangible resources.	Restricted Access: Training opportunities rarely reach remote villages. Many feel they are excluded due to favouritisms or geographic distance (“NGO’s list only their people”). Farmers express a strong desire for practical training on flood-tolerant crops and modern methods.	General Dissatisfaction: Farmers feel neglected and unsupported. Assistance is inconsistent, poorly distributed, and often fails to reach the most vulnerable char and riverbank populations.
Progressive Farmer (Rabiul)	Direct and Effective Support: Receives high-quality seeds, fertilizers, and pesticides from government programs. Also receives financial incentives after completing trainings.	Positive Training Experience: Participated in multiple district-level training sessions, gaining skills in modern techniques such as cocopeat nurseries and mulching.	Successful Engagement: Demonstrates that government programs can be highly effective when motivated farmers receive proper support. Represents a model for how knowledge transfer could uplift others.
Government Officer (Md. Ripon Hossain, Agricultural Extension Officer)	Structured Input Distribution: Describes a formal rehabilitation scheme after floods, providing fertilizer, pesticides, and seeds (5 kg/bigha). Emphasizes promotion of flood-tolerant varieties such as Brie 57 and Bina 11.	Selective Training Approach: Confirms that training is available but limited to selected farmers. Shows partial awareness of local innovations—notes sack cultivation but not fully informed about techniques like Sarjon or Cocopeat, indicating a disconnect between policy and practice.	Bureaucratic Implementation: A top-down model with limited outreach capacity. Acknowledges local innovation but highlights challenges in scaling support to all farmers across remote flood-prone areas.

Overall, CBA increases absorptive (tolerant crops), adaptive (replanting) and transformative (innovation) capacity, maintaining productivity amidst floods, with 75% of respondents reporting risk reduction. However, training gaps (e.g., only selected farmers) hinder equitable impact.

DISCUSSION

The findings of this study emphasize the important role of community-based adaptation (CBA) strategies in sustaining crop production amidst recurrent floods in Melandah Upazila of Jamalpur district. By integrating traditional practices (e.g., silt management, crop rotation) with modern innovations (e.g., cocopeat seedlings, raised beds), farmers demonstrated dynamic resilience, transforming flood adversity into improved soil fertility and diversified livelihood opportunities. These findings are consistent with the Sustainable Livelihood Framework (SLF) theory, which emphasizes the five capitals (human, natural, financial, social, physical) and resilience through absorptive, adaptive, and transformative capacities. Below, the findings are compared with previous literature, highlighting the consistency, heterogeneity, and how they address identified knowledge gaps, such as the lack of Jamalpur-specific research, unexplored hybrid strategies, and limited focus on long-term scalability and gender inclusion.

TABLE 07: COMMUNITY-BASED ADAPTATION STRATEGIES AND THEIR AGRICULTURAL & LIVELIHOOD OUTCOMES IN FLOOD-PRONE AREAS OF MELANDAH, JAMALPUR

Community-Based Adaptation Strategy (IV)	Mechanism / How it Works	Observed Agricultural & Livelihood Outcomes (DV)	Field Evidence / Case Insight
Binadhan-7 (Binashad rice seeds)	Short-duration Aman rice, high yielding, resistant to lodging; harvests in 110–120 days, allows quick transition to Rabi crops	↑ Crop yield, ↑ Farm income, ↑ Cropland recovery, ↑ Food security	Farmers reported sowing Binadhan-7 immediately post-flood to ensure early harvest and maintain seasonal crop cycles
Mustard (Sorisha)	Fast-maturing (≈ 3 months), thrives in silt-sandy soils; cash crop with high market demand	↑ Farm income, ↓ Vulnerability, ↑ Food security	Farmers shifted to mustard when ≥ 75% of paddy lost; mustard oil extraction now mechanised, with by-products used as fuel
Lentil, wheat, potato & Rabi crops	Cultivated after rice harvest or flood failure; adapted to sandy loam soils	↑ Crop yield, ↑ Farm income, ↑ Food security	Farmers replant Rabi crops immediately after rice loss to reduce livelihood shocks
Crop rotation	Alternating crops maintains soil fertility, reduces pest/disease risk	↑ Crop yield stability, ↓ Vulnerability, ↑ Long-term sustainability	Generational practice in some households; adapted according to soil and flood changes
Jute	Flood-tolerant, withstands 7–15 days	↑ Cropland use, ↑ Farm income, ↓	Farmers in fertile alluvial areas cultivate jute as a

	submersion; uses floodwater for retting	Vulnerability	resilient crop
Soil-based strategies (Bali, Poli, Bele-Doash)	Matching crops with soil type: sandy soils → sesame, wheat, potato, corn, tishi; alluvial soils → jute, chili, vegetables; mixed soils → rice + mustard	↑ Cropland recovery, ↑ Crop yield, ↑ Food security	Farmers cultivate based on post-flood soil deposits; sandy soils still utilised for specific crops rather than left fallow
Sarjon (raised beds)	Raised soil beds prevent submersion; suitable for vegetables in low-lying flood-prone land	↑ Crop yield, ↑ Cropland recovery, ↓ Vulnerability	Billal successfully grew gourds on sarjon beds where rice/jute had failed
Bag farming	Crops grown in sacks with soil + organic fertilizer; usable on rooftops or elevated spaces	↑ Crop yield, ↑ Farm income, ↑ Food security, ↓ Flood damage	Practised in Mahmudpur & Charbani Pakuria; farmers grew onions, garlic, and ginger; profitable and resilient
Cocopeat media seedlings	Coconut husk-based medium, retains 9× water, zero mortality of seedlings, faster growth	↑ Crop yield, ↑ Farm income, ↑ Cropland recovery	Entrepreneur Ruman marketed cocopeat seedlings; Robiul harvested peppers faster with higher productivity
Mulching (including poly-mulching)	Conserves soil moisture, regulates temperature, reduces erosion and pests	↑ Crop yield, ↑ Food security, ↑ Resilience	Khairul Hasan's team grew papaya and watermelon with mulching; effective against moisture loss and seasonal stress

Source: Developed by Researcher

Table 5, indicates community-based adaptation as independent variable (IV) and agricultural and livelihood outcomes like crop yield, farm income, food security etc. as dependent variable (DV). Traditional methods or techniques include cultivating mustard, although rice is very suitable for this region, but since the last 15 years, it has been seen that farmers are cultivating mustard as an alternative to rice due to floods, which they use to get faster yields. There are also some techniques such as mixing silt to increase soil fertility and eliminating excess silt. Growing crops through crop rotation, cultivating by understanding the soil condition, not leaving the land unnecessarily, and cultivating according to the soil of the land so that the crop will grow well. It is seen that the people of this region mainly cultivate crops depending on the type of flood, sometimes more silt comes with the flood and changes the type of land, and sometimes the amount of sand becomes excessive in the areas near the riverbanks, so they cultivate suitable crops periodically based on this periodic change of land. Again, some modern methods such as using seedlings of coco peat media are also being used by some new-age farmers or entrepreneurs. Using seedlings of coco peat media reduces the mortality rate of seedlings to zero. That's all strategies also indicate

absorptive, adaptive and transformative capitals to ensure resilience. Case perceptions ensures these methods generate higher yields, faster returns, and more resilient income streams. |

IMAGE 01: CIRCULATING PRCCSS OF COCOPEAT MEDIA SEEDLING



Source: Captured by Researcher at the time of primary data collection in research area

The image displays frequency of cocopeat media found at study site need to be shared.

1. Cocodust ↓
2. Mixture of cocopeat media ↓
3. Seedling of cocopeat media ↓
4. A tray view of cocopeat seedling.

Robert Chambers first share the idea of sustainable livelihood framework. Sustainable livelihood framework is a unique approach which tries to capture factors (e.g. food security, economic issue, sustainable nature...) to understand the fundamental causes of poverty. The approach is grounded on a belief that people require a range of assets to achieve positive livelihood outcomes (Majale 2002). Community based adaptation in study area ensures sustainable farming practices along with maintaining sustainable livelihood framework that make sure resilience. The way in which community-based adaptation in the research area shares the discourse of the region is indicated below and presented through their statements.

Crop Yield and Productivity

Crop yield is readily formed by flood intensity, soil fertility, and farmers' adaptive strategies. Though productivity of paddy ranges depending on flood duration it remains the prime crop, Short duration flooding 7to 15 days reduces yield but prolonged flood can cause

losses of up to 75%. Farmers widely adopt short-duration and quick-harvesting rice varieties to mitigate this, such as Binadhan-7.

The seeds called Binashad are sprinkled soon after the flood water has receded so as to get a quick yield. (Sheikh, 18 December 2024)

This practice allows households to recover staple food supplies and maintain seasonal cropping cycles. Farmers shift towards fast-growing alternatives in cases of severe crop loss, mustard and other short-cycle crops.

If the paddy is more than 70 percent damaged or completely damaged, we prepared the land for green chilies. And if there is up to 50 percent of the crop, then that is taken care of and made into a crop. (Ali, December 2024)

Such diversification ensures partial yield recovery and cushions household food security. Rabi crops such as vegetables, green chilies, potato, wheat, peanuts, peas, corn and sesame are dominant to yield and income source in the post-flood period. Innovative practices significantly influenced crop yield. The use of cocopeat seedlings, Sarjon (raised beds), and bag farming has enabled early and more reliable vegetable yields in flood-prone conditions.

I have also sold pepper once, using seedlings of coco peat media... two months' earlier yield is possible by using seedlings of cocopeat media. (Rabiul, 24 December 2024)

Nursery owners like Dr. Ruman also promote raised-bed methods to delay water contact with plant roots, thereby safeguarding yields. Certain crop like jute, demonstrate natural flood resilience and provide stable yields despite flood.

We give more importance to the cultivation of jute than paddy during the flood season because even the jute plant can survive the flood and easy to clean the jute in the flood water. (Mukul, 24 December 2024)

In this case, it appears that floods have a dual impact on crops, as confirmed by farmers' experiences; although floods cause immediate crop damage, they also increase soil fertility and wash away toxic substances from the soil, which contributes to increased productivity in the following season.

Vulnerability Reduction and Risk Management

Vulnerability in the study area is largely defined by exposure to recurrent floods, crop losses, seedling mortality rates, and livelihood shocks. Farmers repeatedly emphasized that adaptation strategies are not only for improving yields but also for reducing risks associated with unexpected floods. Therefore, reducing vulnerability emerges as a central outcome of community-based adaptation (CBA) practices. A major strategy is the cultivation of short-duration and flood-tolerant crops, such as Binadhan-7 rice and mustard, which reduce the risk of total crop failure.

We plant mustard when paddy is destroyed by flood and mustard seeds yield within few days. If the crops of Roa season are not damaged much, then mustard is not planted and rice left in the field. (Kala, 18 December 2025)

In flood-prone areas, farmers no longer depend on a single crop. Instead, they try out different crops at different times so that if one fails, another can still give food or income. To deal with the low-lying land, many have started using raised beds for sowing and even simple bag cultivation. According to them, these methods keep plants above water level and help prevent the worst damage when floods arrive.

Since the basement of the soil is very high in the sarjon technique, when the flood water comes, it takes much time to reach the roots of the trees, so this method is very useful in floods. (Billal, 30 December 2024)

Similarly, bag farming allows for cultivation in a safe location, such as a rooftop or a homestead, which protects production from river flooding. These methods provide farmers with a reliable fall back system in case their field crops are destroyed. Mortality rate of seedlings is another area of vulnerability. Traditional soil-based seedlings are often destroyed during floods, delaying replanting but the introduction of cocopeat medium has been transformative.

With cocopeat seedlings, not a single seedling dies in flood. The specialty of this sapling is the roots of the plants don't affect when planting so the sapling grows without any infection in the root. (Ruman, 18 December 2024)

The above strategies are playing an important role in reducing the risk of farmers cultivating crops, preserving soil fertility and actually restoring the land in the fastest possible time. All these methods transform the agricultural system from high risk and frequent losses to flexibility, security and resilience.

Cropland Recovery and Soil Fertility

Cropland recovery refers to how quickly and effectively agricultural land is brought back into production after seasonal floods. Recovery depends on both the physical condition of the soil after the flood recession and the adaptive strategies that farmers adopt to restore cultivation. Farmers have consistently emphasized that the ability to bring their land back into production “without delay”.

Silt that come with flood water mixed with normal soil and it increases the soil fertility. If any land seems to be poor condition they mixed the silt with their land soil while ploughing (Sulaiman, 18 December 2025)

Another driver of recovery is the efficient use of post-flood soil deposits. Floods deposit layers of silt, sand, and clay (locally termed balu, poli, bele-doyash), which farmers skilfully match with suitable crops.

We grow crops according to land soil. After severe flood sandy fields are used for potato or wheat; we never keep land empty. (Khatun, personal commutation, 1 January 2025)

This soil-based adaptation enables faster recovery by preventing land from lying fallow. Crop rotation is a unique technique for land recovery.

I cultivate different types of crop in my land. If I grow paddy the following season I grow robi crops or lentils. Next year I try to cultivate jute. I can assure you my land fertility is better than others. (Alam, 24 December 2024).

Moderate flooding naturally increases the fertility of cropland. And if excessive flooding occurs, crop production according to the land concept, mixing silt with the soil, and crop rotation have been documented as important ways to recover cropland. Thus, cropland restoration is not a passive activity; it demonstrates both resilience and adaptive capacity, a deliberate and efficient response to the challenges of floodplains.

Farm Income and Economic Resilience

In Melandah, people don't think of farm income only as money—it is also a way of measuring whether a family can survive the flood season without falling into crisis. Every flood takes something away. Sometimes the rice fields go under overnight, and suddenly there is no cash to buy food. What farmers told me is that they have learned to spread their chances. Mustard has turned into one of the most reliable fall backs. It grows on sandy patches, and there is always demand for oil and seeds.

“When our paddy is destroyed mustard saves us. We press the seeds, sell the oil, and even the oilcake we use as fuel—nothing is wasted.” (Begum, 2024)

Other practices are less traditional but have caught on quickly. Sarjon (raised beds) let people grow gourds when rice has failed. Billal, a 45-year-old farmer, laughed as he told me he had vegetables to sell in the market every week, while others were waiting for their fields to dry. In Mahmudpur and Charbani Pakuria, women used bags to grow onion, garlic, and ginger for quick cash. Cocopeat seedlings are another change.

“We earn more because our seedlings don't die. They grow faster, so we sell earlier.” (Ruman, 18 December 2024)

That one small difference seedlings not dying means the whole income cycle speeds up. Mulching has also been picked up. Khairul Hasan's group showed me papaya and watermelon fields that needed less water and fertilizer, yet gave bigger and better fruit. They sold fast in the market and at a better price. Income, in other words, comes from many small doors, not just from rice. That is how families rebuild so quickly after the water goes down.

Food Security and Livelihood Sustainability

In the same villages, food security is not just “having rice.” It is about making sure the household has something to eat every week of the year, even when the floodwater stays long. After harvesting Aman rice, farmers rush to plant mustard, lentil, potato, and wheat. These crops not only sell but also add to the plate—oil, protein, and vegetables.

“Though flood is a regular phenomenon, we don't depend on rice alone. Mustard oil, lentil curry, potato—all come from our fields. The children never go hungry.” (Sonahar, 18 December 2024)

People told over and over that they never leave land empty, even if the soil has changed.

“Each type of soil gives us some food. We cannot afford to leave land empty.” (Nasima, 20 December 2024)

Sarjon and bag farming are central here too. Small things like that kept diets balanced when others struggled. Such practices directly protect household nutrition.

When neighbours had no green vegetables, our sarjon gave us gourds every week. (Billal, 1 January 2025)

Mulching practices also improve the stability of food supply. Two types of mulching are seen: silt mulching and organic mulching. The mulching process prevents insects from damaging the crop, provides adequate heat and nutrients, and provides adequate water through drip irrigation systems, which preserves the nutritional value of the crop and increases its quantity. These techniques show that farmers are active agents who are constantly making efforts to protect their families from hunger and malnutrition rather than passive victims of floods.

Synthesis: Building Resilience through the Sustainable Livelihood Framework

Through SLF, findings show strengthened capitals (e.g., social for sharing, natural via silt) enabling livelihood outcomes, extending Chambers and Conway (1992) to flood contexts. Resilience Theory (Folke, 2006; Walker et al., 2004) is evident in tiered capacities, with hybrids fostering transformation beyond absorptive survival in Dhungel (2011). Overall, this study fulfils the gaps by providing Jamalpur-centric data, emphasising hybrid strategies' scalability, and highlighting gender/inclusivity, thus informing policies for equitable, resilient agriculture in similar underserved regions.

- Starting with the land itself what they call natural capital. These guys rotate their crops, deal with the silt that piles up, and really nurse the soil back after a flood hit. It stops the ground from getting worn out, even with all the yearly battering, and keeps it churning out good stuff season after season.
- Then there's the gear and setups, or physical capital. Things like those sarjon beds, farming in bags, and using cocopeat mean they can keep veggies growing even when everything's swamped. It's clever, keeps disasters from wiping out everything by shifting to higher ground or whatever. Plus, little machines like oil extractors help them get more out of what they pull in.
- Skills-wise, human capitals on the up. People are learning hands-on stuff: how to pile up those raised beds, mix cocopeat just right, or throw down mulch to guard the plants. Nothing fancy, but it gives them a real boost in confidence and a bunch more options when things go sideways.
- Money side of things, financial capital, is looking better too. By mixing it up with mustard, fast-growing veggies, and quick crops, they've got multiple ways to bring in cash. If a flood trashes one, chances are another's okay, which cuts down on the panic and lets them sock away a little extra.
- And social capital? That's probably the quiet powerhouse. Farmers chat all the time, sharing tricks and showing each other how it's done like that guy Ruman, who's not

just raising seedlings but coaching others too. These ties help ideas catch on quick and give everyone a safety net when the going gets tough.

- It all feeds into each other: better dirt leads to fatter harvests, which means more money; that buys better tools; tools spark new tweaks; and swapping know-how pushes the group ahead. So, the toughness in Melandah comes from beefing up the whole way they live and farm, not some one-off change.
- Sure, it's not all smooth. Getting into cocopeat or plastic mulching takes some cash up front and a bit of learning, which might leave the really broke folks out. And going all-in on cash crops like mustard could mess with how food flows locally in ways no one saw coming. That's why we need smarter rules may be cheaper access to supplies or more training to level the playing field.

At last but not the least, these local fixes in Melandah's flood-heavy spots hit the main problems square on: pumping up production, bouncing back faster, dialling down risks, spreading out earnings, and nailing down food for the table. They're baked right into daily life, showing that community-driven stuff is crucial for keeping farming going strong in Bangladesh's roughest areas.

CONCLUSION AND POLICY IMPLICATIONS

This research monograph explores the significance of community-based adaptation processes in agriculture in coping with floods in the Jamalpur region of Bangladesh. The research was completed through a survey of three unions in Melandah Upazila of Jamalpur district, where it was recorded how local farmers use their traditional knowledge, ecological practices and strategies in the face of recurring floods. The research project explores that although floods are temporary, in the study area, people have taken a positive turn in agriculture due to floods, despite many adversities. Just as some farmers have achieved stability in agriculture through some communal knowledge, some educated and new-age farmers, agricultural entrepreneurs are adopting new methods that are also bringing success to the community agriculture sector. If their new technologies can be combined with the traditional adaptation strategies of the community, floods and other natural disasters will not be able to cause massive damage to the agricultural sector. Some women in the study area have also advanced in agriculture, including them will ensure social stability. Cultivating flood-tolerant crops, growing crops based on soil, and cultivating through silt management all highlight the deep-rooted concept of local ecosystems. Collectively sharing knowledge, agricultural activities through flood adaptation strategies maintain social stability, while alternative farming management of farmers during floods enhances their economic stability. Flooded agricultural practices in flood-risk regions are insured and shunned through community-based adjustment mechanisms. Minimal institutional support and uneven training administration that dissuades community farm activities necessitates unprecedented intervention by local farm businesspeople. Finally, the study confirms that contemporary adaptation is not merely a coping mechanism but a dynamic environmental administration and social invention process. Valuing indigenous knowledge, promoting equitable sharing of community-based knowledge, and mainstreaming people-initiated programs will achieve livelihood resilience to climate change in other regions like Jamalpur.

- Integrate the use of traditional silt in cultivation and mulching for bag cultivation to maintain soil fertility with crop rotation (aligned with NAP 2023-2050 Target 2 on Nature-based Solutions). Target smallholder farmers and women in flood zones; Implement through MoA/DAE workshops and CCTF-funded demo plots with BRAC, with a target of 50% adoption within 2-3 years through Upazila tracking.
- Equip officials to scale up innovations like cocopeat and form cooperatives for inputs, training and markets (aligned with BCCSAP 2009 Capacity Building and BDP2100 Cooperatives). Target entrepreneurs in Jamalpur; Implement through DAE/BARI under PPCR with CCTF subsidy, quarterly inspections and digital app for 70% union coverage in 5 years.
- Provide village-based training on mulching, cocopeat and bagging methods to all farmers, with a focus on women (aligned with NAPA inclusion and NAP 2023-2050 gender focus). Target women, youth and marginalized pastoral areas; Implement through CDMP/MoDMR with UNDP mobile units and LDCF/GEF funding, train 10,000 people annually through survey evaluation.
- Promote women's agricultural participation (e.g., bagging methods) for economic empowerment (aligned with NAP 2023-2050 Goal 5 and BCCSAP Social Protection). Target female heads of households; Implement through MoA/MoWCA through BRAC microfinance and outreach, increase cooperative engagement by 40% in 3 years through gender-disaggregated information.
- Support educated farmers in community-wide knowledge sharing for multi-hazard resilience (aligned with NAP 2023-2050 Goal 6 Innovation and BDP2100 Network). Target progressive trainers; Implement DAE "farmer-to-farmer" model with CCTF hub and subsidy, reaching 5,000 people annually through feedback monitoring.
- Document and institutionalize national CBA strategies for large-scale disaster application (aligned with NAP 2023-2050 Goal 6 and NAPA Indigenous Practices). Target policymakers and BARI/MoEF; Implement MoEF/UNDP GEF-funded database with survey and BCCSAP integration, covering 20 strategies in 20 districts over 5 years with annual reporting.

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Conflict of Interest

No conflict of interests has been declared by the authors.

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Property Distribution and Ownership Pattern in the Matriarchal Garo Community: A Sociological Study of Change and Continuity in Kolmakanda Upazila, Bangladesh

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ABSTRACT

The Garo is one of the most famous matriarchal societies in Bangladesh. This study aims to find out the property ownership and distribution pattern in the matriarchal social system by focusing on the continuity and changes in the traditional practices of the Garo communities. A mixed method approach is employed with 130 surveys, both face-to-face and online, as a quantitative method, and 02 Key Information Informants (KIIs), 08 In-depth Interviews (IDIs) under case study as the qualitative method with purposive sampling, respectively at Kolmakanda Upazila in Netrokona district. About 69.20% of respondents reported that The youngest daughter (Nokna) is traditionally considered the primary heir in Garo communities where 76.20% state that when younger daughter unable or unwilling to accept the inheritance, the ownership of property become distributed among other siblings and 80% Garo people delineate that in absence of female child, mother handover the ownership of property to her sons. To transfer the ownership of property, Garo communities arranged the Nokrom-gata ceremony, where the husband of the nokna (nokrom) came to the nokna's house and the mother transferred her property to the youngest daughter in the presence of family members, relatives, the headman of the village (nokma), and a few witnesses of the village. In this study, more than one fourth of Garo people believe that inheritance practices have been changed among Garo communities because of intermarriage with non-Garo communities, whereas 27.7% believe that modern issues like education, urbanization, and industrialization, cultural acculturation, cultural assimilation, etc., influence property distribution practices in the Garo community. In recent times, male members of the Garo society have been demanding equal ownership rights in family property. Most of the parents are now distributing their property among their sons and daughters. Even many female children of Garo families don't demand full ownership of their

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parents' property. They want to share the ownership of parents' property with their brothers, but still now female children of Garo communities are getting the lion share of their parents' property. Most of the male children of Garo families take it positively because they think women are safe hands to protect and manage their families' property. These provide valuable insight into the understanding of matrilineal systems, indigenous property rights, and gender dynamics among Garo communities in Bangladesh, serving usefully for policy thinkers, academics, and development practitioners working on the issues of gender and economic empowerment of women.

JEL Classification: Z13, P14, J16, K11

Keywords: Garo Communities, Property Ownership, Matriarchal System, Nokna, Continuity and Changes in Traditional Practices

INTRODUCTION

Indigenous people and nations are those who consider themselves as apart from other social sectors. Now they are determined to preserve, develop and hand over to next generations their ancestral territories and their ethnic identity based on their current existence in accordance with their own cultural patterns, legal system, and social institutions (Cobo, 2011). At least 350 million people belong to the indigenous worldwide, including around 2 million indigenous people from 45 unique ethnic tribes in Bangladesh (Costa & Dutta, 2007; GOB, 2008). The Garo are one of Bangladesh's major indigenous communities. The Garo belong to a marginalised ethnic minority tribe in Bangladesh. They originally migrated from Tibet. For centuries, they have been coexisting with the Bengali majority in different parts of Bangladesh. The Garos have different cultural traditions and social structures from those of the majority Bengalis. According to the Population and Housing Census (2022), the total population of Garos is 76,846. The Garo is one of the most famous matriarchal societies in Bangladesh, and it is too hard for them to maintain their traditional life. Among the major indigenous groups of the north-eastern Indian subcontinent, the Garo stand out with their matrilineal social structure. The Garo, traditionally located in the Indian state of Meghalaya and parts of Bangladesh, trace a lineal pattern and social organization wherein descent, succession to property, and ownership of wealth are traced and passed through female lineage. It is thus the women, especially the youngest daughter, who ensure continuity in transmitting the right of property in a system that gives the Garo community the distinctiveness of a matrilineal culture highly exceptional in South Asia. (Islam, et al., 2008).

Among the Garo civilization, much uniqueness in respect to cultural and social structure has always been found as women bear this prime responsibility or privilege of property distribution, which is part of tradition transferred through generations, where women, notably daughters, end up as guardians of family property, land, and heritage. This approach reflects the regard for women, especially in respect to family history, social stability, and continuity of culture, so strong in this community (Sangma, 1990). With primarily matriarchal systems, women play an important role in managing household and cultural assets. This system, while matrilineal, has matriarchal elements due to the economic control provided to women, particularly in land and property management (Burling, 1997). The practice of nokna is central to Garo property distribution, in which the youngest

daughter (nokna) inherits the family's property, which includes land and the family home. This protects the integrity of the maternal lineage and the clan's economic stability (Sangma, 1990). Men, despite being barred from inheriting property, frequently contribute to the home through marriage, typically living matrilocally (Lyngdoh, 2005). A male village headman manages political and legal problems with the law, showing a gendered division of work in which women have the ownership of property and men hold positions of power (Chandra, 2010). Although land rights belong to the female lineage, the Nokma (Headman) serves as the chief responsible for managing and controlling clan lands and resources on behalf of the clan. In as much as the Nokma has the right, her husband (Nokrom) can also represent the community in some dealings, though the ownership and control of his wife's. This arrangement allows women to retain ownership and custodianship of family land, thereby sustaining clan-based territorial integrity and heritage (Bowen et.al 2015).

The famous matriarchal Garo or Mandi people of Bangladesh are changing day by day. Changes in the culture of the Garo mean they are losing many of the characteristics of their own culture and are taking on others. A study noted that Marriage is an important event in the Garos' social and cultural life, with exogamous rules requiring husbands and wives to have distinct stages and motherhood. Breaking this rule is a social sin. However, the practice of exogamy continues to change, with marriages within the same clan becoming more typical. According to the report, 95% of Garos always marry another Garo, and 81% of relationships must be from separate clans. Christian marriage customs are becoming increasingly common, with 76% of respondents in Haluaghat and 88% in Modhupur Upazilas following Christian principles and denying Bengali Muslim (Ahmed & Barua, 2021). Garo has its own language, which is known as "Achik khusuk." The Garo people do not want to recognize themselves self being Garo. They prefer representing them as Achik Mandi or Hills People. The very original religion of the Garo people is Songsarek, which is nearly abolished, but a few of the Garo people still follow it in some rare areas. Over time, most of the Garo have been converted to Christianity and a few to Islam (Ellen, 1999).

However, industrialization, legal reforms, and changing gender norms all present challenges to this old system. Globalization and integration with India's patriarchal legal systems have caused claims regarding land rights and gender roles, which might upset centuries-old practices (Parida, 2018). The aim of this research article is to present the detailed mechanisms of property distribution within the matrilineal system of the Garos. The research focuses specifically on Kolmakanda Upazila in the Netrokona district of Bangladesh, where a high concentration of Garos can be found. The research explores how property is traditionally distributed according to family patterns, traces the change in such patterns over time, and explores the implications of this system for the socio-economic empowerment of Garo women.

OBJECTIVES OF THE STUDY

The general objective of the study is to find out the property distribution and ownership pattern among the Garo communities in Bangladesh. The specific objectives of the study are as follows:

1. To find out the continuity pattern of traditional practices of property distribution among the Garo communities.

2. To investigate the role of Garo women in the management of inherited property and socio-economic issues of family.
3. To explore the challenges and changes faced by the Garo matrilineal system in terms of property distribution.

RATIONALE OF THE STUDY

This study is considered a pioneering effort within the field of Sociology of Minorities, creating new ground in the field of human rights within the context of ethnic communities of Bangladesh for vulnerable populations like women. In Bangladesh, dominated by the all-pervasive and overwhelming patriarchal values in most spheres of socio-economic life, the Garo stands in a unique and interesting contrast. Property rights among the Garos take on a different aspect due to the matrilineal system in place. To obtain deep knowledge about traditional property ownership and recent changes in property ownership among Garo communities in Bangladesh, especially in Netrokona district, researchers have explored on different databases like; iPortal, Google Scholar, JSTOR, CSIRO etc. By exploring these databases, the authors of the study found that most of the previous research work was conducted by numerous scholars, focusing on the matrilineal system of the Garos, traditional property inheritance patterns of the Garos, livelihood patterns of the Garos, family and kinship in Garo villages, gender and matrilineal society, etc. Among these, limited research work about Garo communities had been conducted in Bangladesh, especially in Netrokona district. Moreover, the traditional property allocation procedures among the Garos are changing with increased modernity, migration, and other influences from mainstream legal and social systems (Marak and Thirumurugan, 2023; Parida, 2018). After reviewing literature, the authors of the study found that numerous research works like, "*Matrilineal Society in Transition: The Garo Community in Bangladesh*" by Chowdhury (2015), "The Socio-cultural Impacts of Economic Changes to Matrilineal Garo Society in Bangladesh." By Dey and Sabiha (2009) have already been conducted. But no one has yet conducted research work on "Property Distribution and Ownership Pattern in the Matriarchal Garo Community: A Sociological Study of Change and Continuity in Kolmakanda Upazila, Bangladesh". So, the present study is important in understanding how different factors transform the Garo matrilineal system, as well as the implications of such transformations, have on the future of property rights and gender roles. Through a wide focus on the local, this research intends to render an in-depth understanding of matrilineal inheritance on the ground and engagement with a broader trend that affects the Garo people. These provide valuable insight into the understanding of matrilineal systems, indigenous property rights, and gender dynamics of ethnic communities in Bangladesh, serving usefully for policy thinkers, academics, and development practitioners working on gender issues and economic empowerment.

REVIEW OF LITERATURE

The Garo community is the strongest matrilineal ethnic community of Bangladesh, and in their society, lineage, property, and residence are succeeded from mothers to daughters, preferably the Youngest daughter or the most favoured one. Lineage among the Garos is determined by the female line. By birth, children become the member of the mother's clan

(mahari) as well as the cluster of clans (machong). They get aligned to one of the five conglomerations of machong, known as chatchi, viz., Sangma, Marak, Momin, Areng, and Shira. When a couple does not able to give birth a daughter, adoption from one's mahari or machong takes place. Garo Families having more than one daughter, the parents' choose their favourite daughter as the inheritress, called as nokna or nokna-dongipa-mechik (daughter for the house). She inherits not only the movable and immovable property, but also the responsibility towards elderly parents, younger siblings, and other needy mahari members (Marak, 2012). Burling (1963), in his cultural study of Garo family life structure, found that the youngest daughter chooses to be the family's property custodian, a tradition that supports the maternal line. He also found that the social responsibilities related to getting property, such as the inheritor's need to care for aging parents and other family members.

Sangma (1981) conducted a study on the Garo matrilineal system, which is one of the most effective sociological studies. This study finds that the youngest daughter, or "Nokna," is the primary inheritor of family property, especially immovable property like land and homesteads. This study highlights that, while females inherit family funds, the system is not completely exclusive; sons may sometimes receive property in typical situations, but succession can be limited. The Garo laws are proved in such a manner that it is exceedingly difficult for males to inherit or own properties. Usually, the females are entitled to all the properties. The properties bought by males will be entitled to their female family head or spouse. Usually, only daughters inherit properties from their mothers. If one family does not have any girl children, the sisters of the female head of that family will inherit her properties in her absence (Ferdous & Samara, 2021). These studies also analyse how this structure supports women's socioeconomic roles within the household and in the wider Garo society.

As the Garo community is a matrilineal society, the birth of a daughter brings more happiness to the family (Navile & Hossain, 2019). According to the matrilineal system, the female members become the heads of the families (Kabir, 2022). Women used to decide and lead the family among the Garo community (Navile & Hossain, 2019). So, Garo women are more empowered than any other ethnic communities in Bangladesh (Kabir, 2022). Another study highlights how the matrilineal system advantages women in terms of property inheritance, particularly the youngest daughter. It also investigates how financial success and education influence the roles of women within the family, creating flexible interpretations of traditional inheritance structures (Chowdhury, 2010).

According to the findings of a survey conducted by Dey (2015), the husbands and wives of Gachabari village jointly take land-related decisions. According to the respondents of in-depth interviews, in most households, the husband has the final authority over property like land matters, even though he informs his wife before taking his decision. Since 84% Garo households of Gachabari are male-headed, men largely practice the actual power of land management and land related decisions. Women generally play the primary role in land management when their husbands are unwilling or away from home or have passed away, but in those cases, women are expected to consult with their maternal relatives who are known as the chra. However, a few female respondents mentioned that managing relationship with the maternal kin is also a challenging task for Garo women, as opinion of

their maternal relatives are often ignored. Especially, present generation husbands are reluctant to accept the decisions made by their wife's chra. Therefore, Garo women usually follow their husbands' decision rather than consulting with their chra (Dey, 2015). This study also reveals that, the government permitted local Garo people to register lowlands in their own names, after the annihilation of the zamindari system. Garo households of Hindu religion tended to register both highlands and lowlands in men's names. On the other hand, Sangsarek and Christian Garo households registered land in women's names by following the traditional property ownership practice. However, husband as household head retained the right to manage land and, in a generic sense, to sell it. Key informants also noted that parents sometimes pass lion share of family land to the main heir, while the other daughters receive smaller shares. In some cases, family land is not divided at all due to the rising discord among sisters about land ownership. Every daughter is allowed to use it as needed. (Dey, 2015).

The Garos and their matrilineal system have experienced transition in the matrilineal setup in Meghalaya due to some basic reasons. Such changes have taken place because of the mixing with other nearby patriarchal communities, the arrival of missionaries, as well as the spread of Christianity among them. The spread of urbanization and urban development is another reason for this transition in the matrilineal setup (Marak and Thirumurugan, 2023). Recently, property ownership or land ownership has been changing. The matrilineal system is strong in the Garo community. In the Garo community, the ownership of land is women. In modern times, the Garo have given up their traditional rule and customs. Now the majority of Garo follow Christian rules and customs. So, now the matrilineal system of the Garo is reducing (Eyemoon, 2022). Female inheritance of property has also faced many changes. Daughters are now mostly found to move out to live in neo-local families. The family property of Garo community is divided among their children. It is either given to all the daughters, or else it is given to the son who is going to live with his parents at home. Now they feel that a son can also take care of their parents equally well. So, it is not rational to restrict the son from getting anything from their parents, as even. But they also feel that women remain always under pressure. Her position will become inferior, if a daughter doesn't get anything from her mother. So still now they are getting the lion share of their parents property in matriarchal garo society. It has been also found that in most cases, the property is kept in contact by the parents. (Marak and Thirumurugan, 2023).

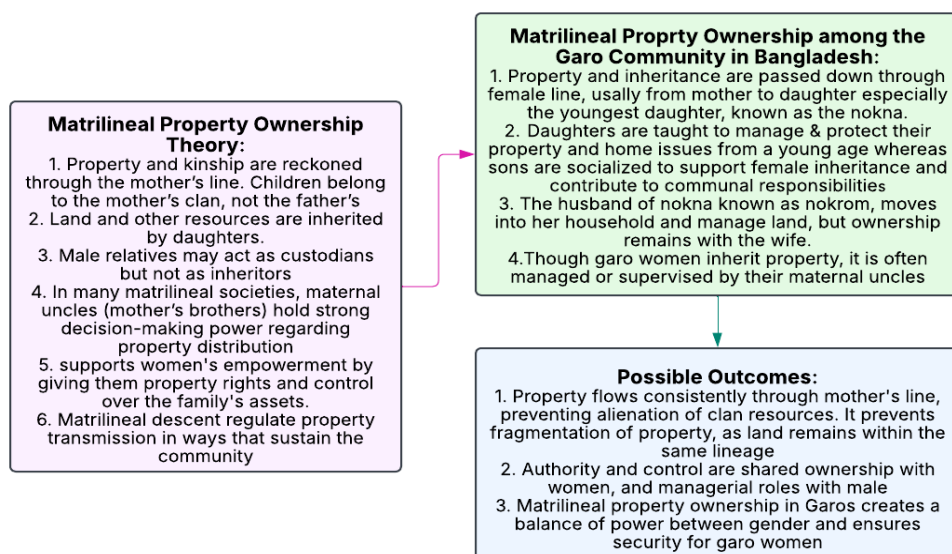
THEORETICAL FRAMEWORK OF THE STUDY

Matrilineal Property Ownership Theory

Lewis Henry Morgan is the main pioneer of matrilineal property ownership theory, who talked about the kinship system, matrilineal and patrilineal descent, and their implications for property and inheritance. In matrilineal societies, property, titles, and family names are often passed through the female line, contrasting with patrilineal systems. In such societies, women, especially daughters, inherit land, houses, and other family property (Morgan, 1871). The matrilineal theory of property ownership emphasizes inheritance and property rights traced through the female line of descent (mother's line), rather than the father's. Property is transmitted from mothers to daughters, and male members (brothers, maternal

uncles) often manage property but do not pass it on to their own sons. This theory proposes that women play a central role in transmitting lineage, inheritance, and identity (Radcliffe-Brown, 1950; Rivers, 1924). Ownership rights of women to property protect women's assets and financial stability in a society (Dey & Sultana, 2017). Women typically retain strong control over family property and household organization as well as community relationships, become improves through female lineage inheritance (Chowdhury, 2015). This theoretical framework allows an in-depth study of how the Garo matrilineal system controls property distribution, affects economic and social roles, and influences family dynamics.

FIGURE 01: THEORETICAL FRAMEWORK OF THE STUDY



Source: Authors' Construct, 2024

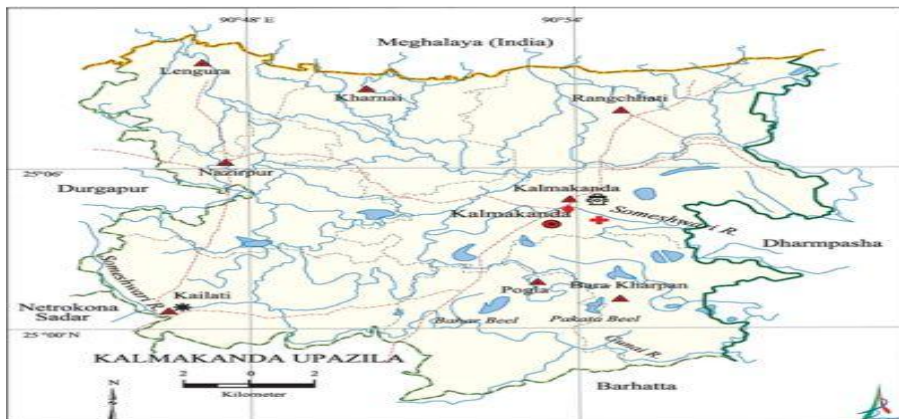
In the Garo society, the Matrilineal Theory of property ownership developed by Morgan and Radcliffe-Brown gives a framework in reference to the findings of the study for understanding how property is inherited and preserved within the maternal line, hence improving women's social and economic positions. The youngest daughter, known as 'Nokna', inherits family property and takes on tasks related to caring, property administration, and maintaining family honor. In the Garo culture, female children have been taught to take control of family property (e.g., selling, renting, or other decision-making related to property) while male children become socialized to support female inheritance and contribute to communal responsibilities. Male members like the husband known as 'Nokrom', sons, as well as maternal uncle (mother's brother) play a significant role in the management of property, but none of them can take the inheritance of property. This traditional culture of Garo communities promotes women's economic empowerment and ensures the stability of family wealth over generations. In Garo society, a power balance between genders takes place because of matrilineal property ownership, which in turn ensures security for Garo women. As land, as well as other property, remains within the

same lineage, it prevents fragmentation of property. Moreover, this idea helps to explain the preservation of family resources within the maternal lineage, which is crucial for keeping property and money within the family and clan. This framework thus defines property distribution as not merely a custom, but also a critical component of the Garo community's social and economic stability.

METHODOLOGY OF THE STUDY

A mixed-method approach, including both quantitative and qualitative methods, has been applied in this study. In the qualitative method, the study conducted in-depth and hidden stories of the Garo community about their land ownership patterns. On the quantitative method, the study focused on the numerical data of the property distribution in the matriarchal social system and the cultural background of the Garo community in Bangladesh. The Garo people at Kolmakanda Upazila in Netrokona district have been chosen purposively as the study site. The sample size of the study is 130, which is determined by applying the Yamane sample size formula: $n = N / (1 + Ne^2)$, where n = required sample size, N = population size = 6800, and e = margin of error = 0.087. So, $n = 6800 / \{1 + 6800 \times (0.087)^2\} = 1000 / (1 + 6800 \times 0.007569) = 6800 / 52.4692 \approx 129.59 = 130$. The purposive sampling has been applied as a sampling technique to choose the respondents from the study area to collect both quantitative and qualitative data.

FIGURE 02: LOCATION OF THE STUDY



Source: BANGLAPEDIA, 2024

Every research methodology has a unique tool for gathering data. The survey method is most likely the most effective technique accessible to social scientists who want to gather first-hand information to characterize a population that is too big to study in person. Surveys using interviews are also a great way to measure the attitudes, beliefs, and orientations that are common among a broad group. To adhere the survey methodology, a structured questionnaire was employed both for face-to-face surveys and the online survey in this study. Following the sample drawing, a place-to-place visit was conducted to directly

interview the respondents as well as Google Forms was used as part of an online survey to gather information. Respondents who participated in the study through an online survey, filled up the questionnaire themselves and submitted their responses. In terms of a face-to-face survey, researchers gave the opportunity to the respondents to self-administer the questionnaire, but uneducated respondents gave their opinion based on the questions and researchers filled in the questionnaire based on the respondents' responses. After collecting empirical data, this study coded the data and completed data entry in the SPSS software for further analysis of the survey interviews with a graphical presentation. In qualitative data, this study analysed the key information informants collected from the headman (locally known as Nokma) of Garo communities in Kalmakanda Upazila, as well as analysed the eight in-depth case interviews, have collected from Garo people like parents, youngest and oldest daughters, sons, maternal aunt and uncle. Reserchers have used the authentic names of respondents with their permission in the data analysis and findings section of the study. Both analyses have made this study representable to the readers, researchers, and policymakers. Both the data collection period and analysis period, this study has tried to follow proper ethical issues. Participants of the study who are educated signed a written informed consent paper, and participants who are illiterate gave their oral consent. Researchers also maintained respondents' voluntary participation, confidentiality, and anonymity during collecting empirical data, at the time of analysing field data, as well as after completing the research work.

FINDINGS OF THE STUDY

Socio-demographic Characteristics of the Study

Socio-demographic data of respondents is very crucial to conduct the data collection. The socio-demographic profile of the respondents usually describes the background features of people who participated in a survey, research, or study.

TABLE 01: SOCIO-DEMOGRAPHIC PROFILE OF THE RESPONDENTS (n=130)

Variables	Categories	Frequency	Percentage (%)
Gender of the respondents	Male	86	66.2
	Female	44	33.8
Age of the respondents	18-25	61	46.9
	26-30	48	36.9
	31-35	16	12.3
	36 and above	5	3.8
Types of family	Nuclear	68	52.3
	Extended family	12	9.2
	Joint family	50	38.5
Education level	Non-formal education	2	1.5

Primary education	4	3.1
Secondary education	23	17.7
Higher secondary education	92	70.8
Others	9	6.9

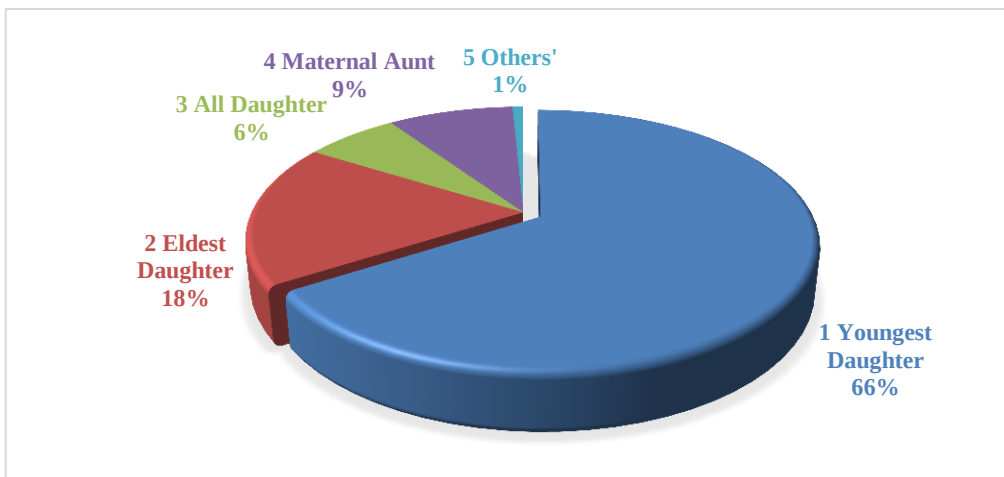
Source: Field survey, 2024

Table 01 describes the socio-demographic overview of the respondents. The above table shows that 66.2% respondents belong to the male category, while 33.8% belong to the female category. In terms of the age group, 46.9% respondents belong to the age group '18-25' years, where 36.9% belong to '26-30' years, 12.3% belong to '31-35' years, and only 3.8% respondents of the study belong to the age category '36 years and above'. Regarding family type, more than half of the respondents (52.3%) belong to nuclear families, while 38.5% come from joint families, and 9.2% from extended families. Education levels indicate that the majority (70.8%) have attained higher secondary education, whereas 17.7% have completed secondary education, and smaller proportions have primary (3.1%) or non-formal education (1.5%). Additionally, 6.9% fall into the "others" category for education, like graduation, post-graduation, MPhil degree, etc.

Traditional Ownership Patterns & Practices of Property Distribution among Garo Communities

Property ownership and distribution pattern of a society or of a country depend on various elements like religious rules, cultural rituals, the law of a country, etc. These issues also depend on the patriarchal as well as the matriarchal systems of a society. The following figures will represent the traditional practices of property ownership and distribution among Garo communities where the matriarchal social system is practiced.

FIGURE 03: PRIMARY HEIR TO FAMILY PROPERTY IN THE GARO TRADITION

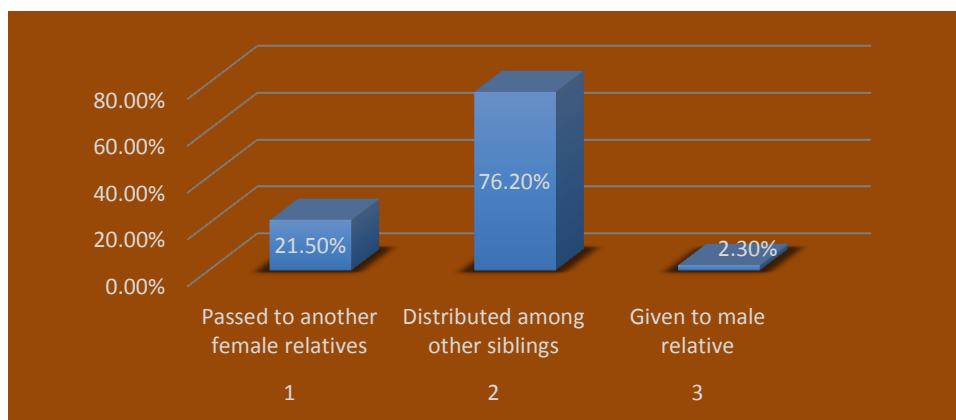


Source: Field Survey, 2024

Figure 03 represents the primary heir of family property in Garo traditions, which illustrates that about 66% respondents choose the youngest daughter, 17.10% choose the eldest daughter, 6.90% choose all daughters, and 9.20% choose the maternal aunt as the primary heir to family property in Garo communities. Whereas only 0.80% respondents argue that sons are the heirs of family property in Garo society. Qualitative findings of the study delineate that properties are passed on forward through the female line in Garo society, which has a matrilineal system of property inheritance. Traditionally, both parents select one daughter, primarily youngest daughter, called as the "nokna," to be the main heir and inherit the property that the family owns. One respondent of the qualitative part of this study claims as follows:

"I live in Chengini village at Kolmakanda Upazila, Netrokona district. I am the eldest daughter in my family of five children, with three daughters and two sons. My youngest sister, Nila Raksam, called the Nokna, is the heir of our family property. My family owns somewhere 15 acres of land, including small homestead, rice cultivation, and betel nut trees. Nila, as the youngest daughter, has the opportunity to take over all of the family's assets and take care of her oldest parents". (Anika Raksam, 35 years old)

FIGURE 04 PROPERTY DISTRIBUTION PATTERN IF THE PRIMARY HEIR IS UNABLE OR UNWILLING TO ACCEPT THE INHERITANCE



Source: Field Survey, 2024

Figure 04 illustrates that if the primary heir is unwilling or unable to accept the inheritance of property, the majority of the property (76.2%) is distributed among other siblings, and a significant portion (21.5%) is passed to other female relatives. These statistics show the value of holding inheritance within the close family to ensure shared obligations and economic stability, as well as underline the matrilineal culture and the importance of women as significant heirs and protectors of family property. On the other hand, the smallest amount (2.3%) goes to a male relative, which emphasizes men's second-class position in the distribution of property within the Garo society. One respondent of the qualitative part of this study claims that,

"I live in Fulbari village of Kolmakanda Upazilla, Netrokona district. I have six children, with two sons and four daughters. Shely Nokrek is the youngest daughter in my family, called as Nokna, who is the primary heir of the property of our family, but

she is unwilling to accept the inheritance of my family's property. So, I have distributed my inheritance property among six children equally". (Rasong mree, 45 years old)

Another respondent of the qualitative part of the study also claims that,

"I have two children with one son and one daughter. Silchina Raksam is the youngest daughter called as nokna, is the primary heir of the inheritance property and is responsible for taking care of her family members in the Garo community's matrilineal system, but Silchina is unwilling to accept the inheritance of property and family responsibility in a single hand. So, I distributed the family property between my two children equally". (Ayesha Raksam, 35 years old)

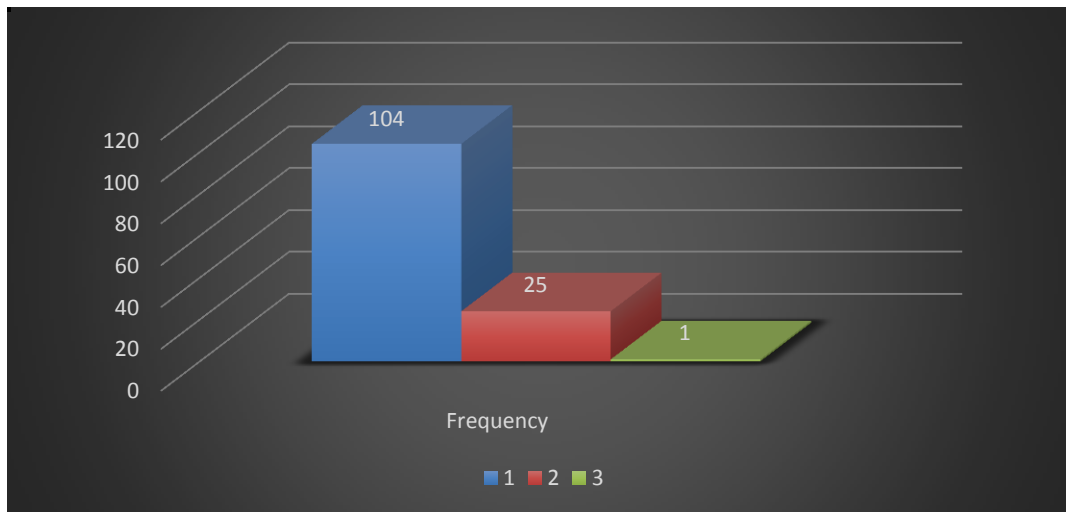


FIGURE 05: THE OWNERSHIP OF PROPERTY IN THE GARO COMMUNITY IN THE ABSENCE OF A FEMALE CHILD

Source: Field Survey, 2024

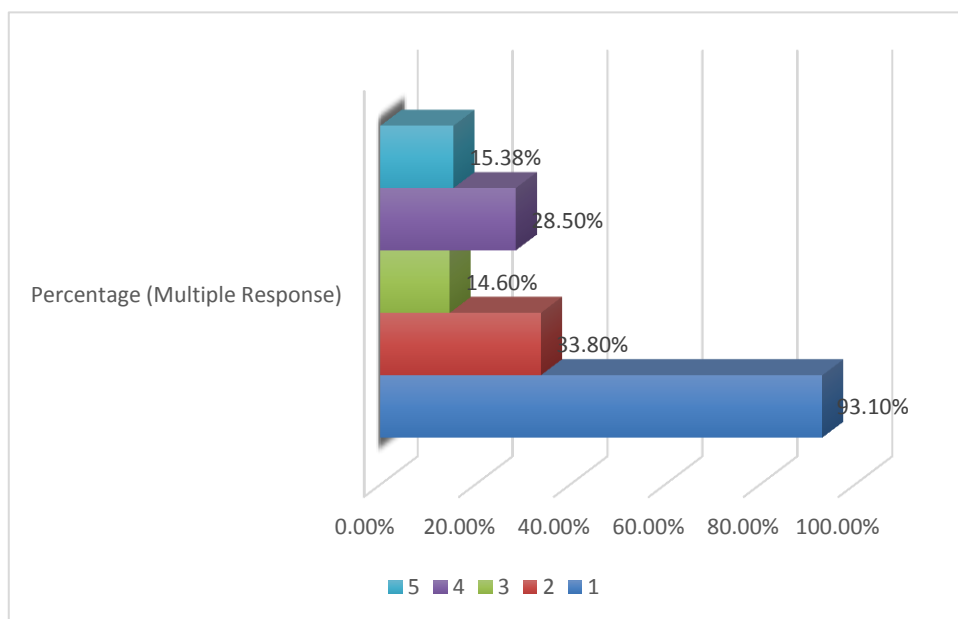
Figure 05 shows that the majority responded 104 (80%) argue that sons get inheritance of property in the absence of a female child in a Garo family. However, 25 (19.23%) argue that female relatives-nearly one-fifth of families-choose to give property to female relatives like aunts, nieces, or cousins. If they weren't physically related, the low percentage of transfer by male relatives and "others" (who could be organizations or non-relatives) confirms the traditional preference for women. One respondent of the qualitative part of this claims that,

"Traditionally, in a Garo family, if there are no female children, the maternal aunt will get the ownership of the property. If she is not alive, his daughter will get the ownership of the property. Only when parents used to bequeath their property in their sons' name, sons got the ownership of their parents' property." (Palash Mankhin, 27 years old)

Another respondent of the study claims as follows:

"I am a second-class job holder in the nursing occupation. Currently, I am staying in Mymensingh city for the purpose of job. I am 45 years old and have only one son who is studying in a renowned university. I have land property in the village, which is some part that I got from my parents, and another part that I bought. I have no daughter, that's why I discussed with my husband to document all property to my son". (Sukla Jengcham, 41 years old)

FIGURE 06: TYPES OF PROPERTY TRADITIONALLY PASSED DOWN THROUGH INHERITANCE



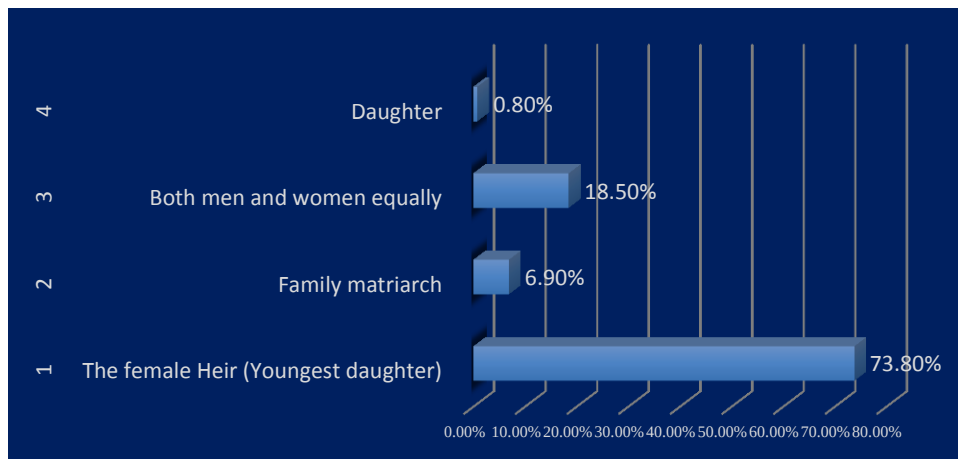
Source: Field Survey, 2024

Figure 06 shows the different types of property that are typically passed down through inheritance. Land (93.1%) is the most frequently inherited property, showing its critical role in maintaining economic stability, particularly in rural communities where it is the main source of wealth and nourishment where house (33.8%) is regarded as important physical assets that give future generations a place to live and security and Livestock (28.5%) whose practical value is regarded as a source of income and subsistence, particularly in rural or pastoral populations. Finally, jewellery and artefacts (14.6%) are deeply emotive and socially significant, sometimes suggesting continuity in family and tradition, whereas 15.38% choose the option of other property like cash money, bank savings, furniture, etc. This distribution implies that cultural traditions, economic priorities, and societal necessities all have an important place in inheritance patterns. While the small number of homes, animals, and loves shows their various benefits to maintaining families and passing down inheritances, the dominance of land highlights its continual importance.

Role of Garo Women in the Management of Inherited Property and Socio-economic Issues of the Family

Property inheritance often passes down through the maternal line, supporting women's responsibilities as the key economic and social decision-makers in society. Garo women gain economic independence by owning land and being in charge of its management and distribution. This control increases their social position by granting them authority in both the household and the larger community. Moreover, the ability to make decisions about property and wealth gives women a powerful role in family concerns, providing them with a level of autonomy that is unique in traditional nations.

FIGURE 07: RESPONSIBILITY FOR MANAGING INHERITED PROPERTY IN THE GARO FAMILY



Source: Field Survey, 2024

Figure 07 delineates that 73.8% respondents of the study argue that the youngest daughter, a chosen female heir, is mostly responsible for managing inherited property in their families. This highlights the matrilineal tradition that is important to Garo society, in which women are very active in inheritance and property control. A lower percentage (6.9%) sees the family matriarch as the manager, capturing society's focus on female authority. Notably, 18.5% feel that both men and women bear that duty, indicating a gradual shift toward gender inclusion. The small percentage (0.8%) that assigns the role to daughters in general highlights a unique cultural practice of choosing other daughters in handling property.

TABLE 02: ROLE OF GARO WOMEN IN PROPERTY MANAGEMENT AND SOCIO-ECONOMIC ISSUES OF THE FAMILY

Matrilineal Inheritance of Property and Role of Garo Women	Variable	Frequency	Percentage (%)
Women's Control in Family Property (e.g., selling, renting, or other decision-making related to property)	Yes	95	73.1
	No	35	26.9
	Total	130	100
Matrilineal inheritance influenced women's business activities, investments, or land usage in the family	Yes	19	14.6
	No	111	85.4
	Total	120	100
Traditional property inheritance for women affects the economic stability in Garo family	Significantly	90	69.3
	Somewhat	23	17.7
	Not much	15	11.5
	Not affect all	02	1.5
	Total	130	100

Source: Field Survey, 2024

Table 2 illustrates that 73.1% respondents argue, women in their family are in complete control of the decision to sell, rent off, or otherwise dispose of the inheritance property. However, the smallest (26.9%) respondent says that women in Garo communities don't manage and control the inheritance property. Both male and female members take responsibility for the management of the property. In some families, there are equal rights for both men and women to make any decision regarding family property. Table 02 also illustrates that the smallest response (14.6%) reports that matrilineal inheritance positively influences land use, investments, and business in their family. A woman makes a powerful person in her family. Where the majority (85.4%) of people believe that matrilineal inheritance does not influence business activities, investments, or land usage in the Garo community family. The above table delineates that 69.3% respondents of the study feel that property inheritance has a great deal of impact for women on the economy of Garo families. Whereas only 17.7% respondents argue that property inheritance somewhat affects the economic stability of the Garo family for women. On the other hand, 11.5% respondents think that it does not really impact much, and just a mere 1.5% think that it does not affect economic stability. The traditional property distribution system in Garo society is viewed as basically beneficial since 90% of the respondents recognized its merits, thereby reflecting the stability and continuity that have been afforded by the matrilineal system of inheritance.

Qualitative findings of the study delineate that women's empowerment has taken place in Garo societies because of gaining ownership of family property. Garo women play a vital role in decision-making about family issues, like child education issues, child and maternal health care, etc. So, Garo women can enjoy freedom and lead an easier life than

that of a patriarchal society. Because of economic support, Garo women have already started different businesses. One of the respondents of the qualitative section of the study claims that,

“Garo women have already established themselves as entrepreneur and have become self-dependent. Garo entrepreneur women have created numerous Facebook page names, “Matgrik Entrepreneurs”, Matgrik (Mandi Udyokta o Shubhakankshider Milonmela), etc., on which they take orders from their customers and deliver their products like traditional Garo dress, t-shirt, traditional print/folklore rales, and traditional bamboo crafts.” (Mahima Rangsa, 24 years old)

It is interesting to observe that 89.2% of the respondents do not believe that matrilineal inheritance presents any problems or economic disadvantages. Only 10.8% of the respondents report that they have some problems in the family because men are deprived economically, which creates imbalance and improper association in maintaining property. Another respondent of the qualitative section of the study claims that,

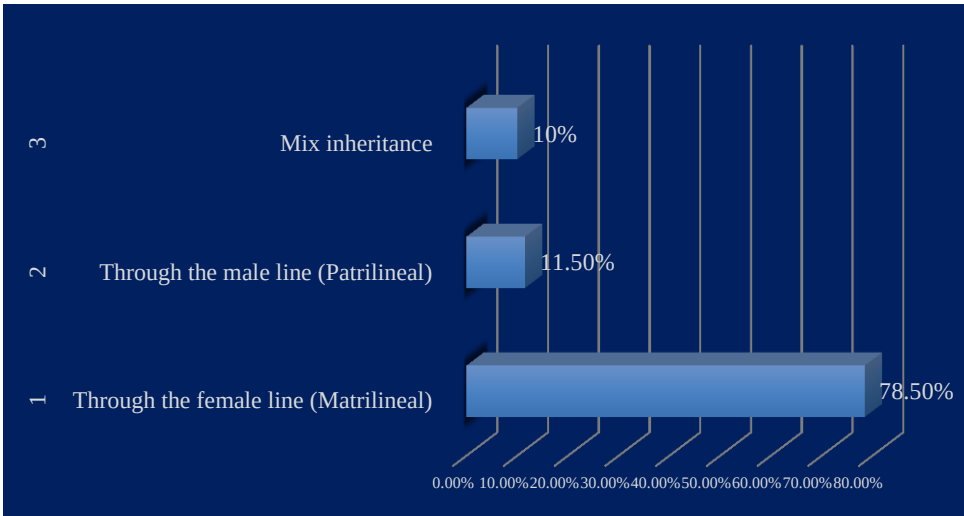
“Sometimes property ownership of Garo women creates an ego and don’t care mentality among women. So conflict between males and females has taken place, especially conflict has taken place between siblings. Even sometimes siblings’ relationship breaks because of conflicts based on the ownership of property.” (Rudra Mrong, 23 years old)

This indicates that even though the system is generally stable, some people can have problems, probably as a result of conflict or poor exploitation of resources.

Recent Changes Faced by the Garo Matrilineal System in terms of Property Distribution

The Garo matrilineal property distribution system has experienced big challenges from external forces such as legal reforms, migration, and increased interaction with non-Garo groups. Legal reforms, particularly those that promote lineal inheritance, have started to reduce traditional matrilineal traditions, resulting in tensions between family customs and government rules. Migration, both within and outside the community, has created new financial limitations and altered family relationships, sometimes devaluing land inheritance in favour of cash-based economies or external jobs. Also, engagement with non-Garo groups has resulted in cultural modifications to with some Garo families accepting lineal inheritance traditions to better mix with other cultures. These changes slowly impact traditional property distribution patterns, calling into question the matrilineal system's continuity and changing Garo women's socioeconomic roles.

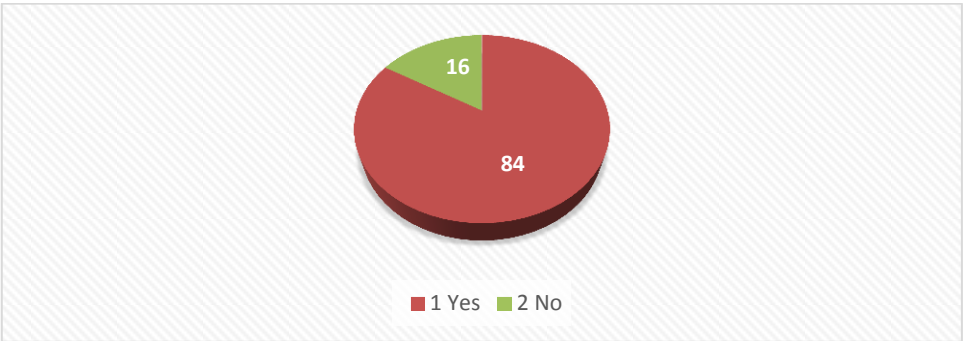
FIGURE 08: CURRENT PATTERN OF PROPERTY DISTRIBUTION TYPICALLY INHERITED IN THE GARO FAMILY



Source: Field Survey, 2024

Figure 08 shows that the Garo society mainly has a matrilineal inheritance system, with 78.5% of property passing down through the female line. This follows a historical cultural norm in which women have main control over family assets. However, 11.5% of households use a patrilineal system, showing a small but major departure from tradition, probably motivated by industrialization, intercommunity relations, or particular family choices. The above figure also shows that 10% of families use the mixed inheritance method, incorporating aspects from both systems, which may indicate a shift to more flexible property distribution practices. While matrilineal inheritance is still common, the rise of patrilineal and mixed inheritance indicates that social and economic changes may slowly affect the future of property distribution in the Garo society.

FIGURE 09: CEREMONIES OR RITUALS ASSOCIATED WITH THE TRANSFER OF PROPERTY

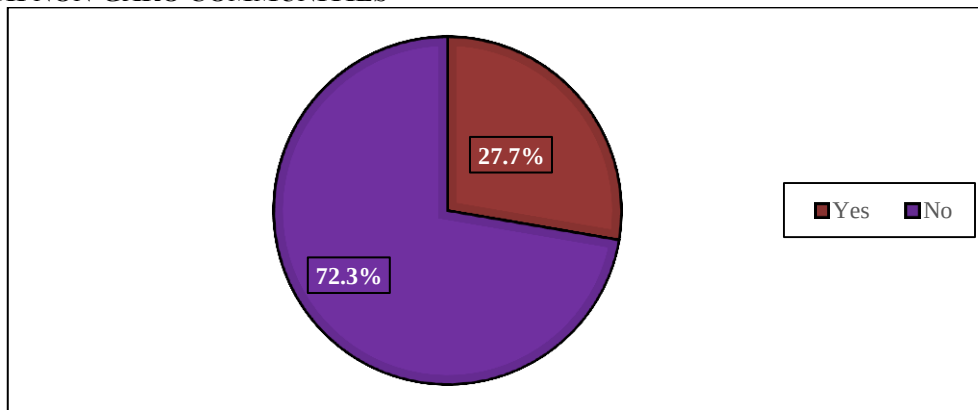


Source: Field Survey, 2024

Figure 09 shows that the majority (83.80%) of the community expresses that they arranged ceremonies during the transfer of property called “Nokrom Gata” associated with the transfer of property. After the completion marriage, the husband of Nokna (nokrom) came to Nokna’s house. At that time Nokrom gata program was arranged and parents handed over their property to their youngest daughter, known as Nokna. The presence of brothers, uncles, the headman of the village (nokma) and a few witnesses of the village is necessary during the distributions of property. Everyone eats together and prayer. It’s like a family gathering program. On the other hand, the smallest (16.20%) respondent says that there were no specific ceremonies or rituals with the transfer of property. But nowadays, the land distribution ceremony is not arranged like in previous times. One of the respondents of the qualitative section states that,

“In recent times, some close relatives remain present at the land transfer rituals program in Garo societies. If parents had died before the distribution of property, Chra (Maternal Uncles) came to his sister's house. If his sister has any debt, they try to recover it by selling the property and distributing the rest of the property among the sons and daughters of his sister”. (Sukla Jengcham, 41 years old)

FIGURE 10: CHANGES IN INHERITANCE PRACTICES DUE TO INTERMARRIAGE WITH NON-GARO COMMUNITIES



Source: Field Survey, 2024

Figure 10 shows that 27.7% respondents of the study believe that inheritance practices have been changed among the Garo communities because of intermarriage with non-Garo communities. Some respondents of the qualitative section state that because of cultural differences, they have noticed a big change in inheritance practices in their community due to intermarriage with non-Garo communities. Siblings are getting equal rights and opportunities. About 72.3% respondents argue that there are no changes in inheritance practices due to intermarriage with non-Garo communities. If the main heir or other female heirs of the family marry into another community, they do not get property. This shows how strong traditional inheritance systems are in Garo communities. One respondent of the qualitative part of the study claims that,

"I have two daughters. I have been raised in a stable and rich family with available land property and assets. The eldest daughter got married five years ago to a Garo man. She is living with his husband in Dhaka city. Then the younger daughter has a relationship who belongs to a non-Garo community, who is the primary heir of our family property. Most recently, I decided to distribute my land property and assets between my two daughters. But there has risen a problem maintaining Garo laws and custody. According to the Garo laws and custody, there is no permission to distribute land property, whose remaining relationship with a non-Garo person. That's why I have finally decided to distribute all my property to my eldest daughter". (Sailen Chambugong, 42)

Respondents of the qualitative section of the study state that in recent times, changes have taken place in the Garo marriage system. Based on the matriarchal system, the male child came to the bride's family after the completion of marriage, but now the customs are changing. Many families, especially the families of grooms, want to bring the bride to their home after the marriage, especially those who have no female children. Besides this, Garo women are becoming more educated now. They are going abroad for higher education, and sometimes they are becoming settled abroad. When the daughter of a family goes to the groom's house or abroad, she cannot control and manage her property properly. If an equal distribution of property had taken place in the Garo family, male children would have controlled and managed the property of their sisters.

TABLE 03: CHANGES FACED BY THE GARO MATRILINEAL SYSTEM IN PROPERTY DISTRIBUTION (n=130)

Changes faced by the Garo matrilineal system in Property Distribution	Variable	Frequency	Percentage (%)
Modern influences, such as education, urbanization, cultural acculturation and assimilation, etc., influence property distribution practices in the Garo family or community	Not influence	94	72.3
	Yes, Moderately	20	15.4
	Yes, Significantly	16	12.3
Now male members of your family claim to inheritance rights	Yes	23	17.7
	No	107	82.3
Property distribution practice in the Garo society will also change in the future	Yes	84	64.6
	No	32	24.6
	Not sure	14	10.6
Do you still feel the importance of cultural traditions in determining property inheritance in the Garo family.	Very important	86	66.2
	Moderately important	39	30
	Not very important	04	3.1
	Not important at all	01	0.8

Source: Field Survey, 2024

There is some mobility or existence between matrilineal and lineal customs. Although 82.3% respondents show a stronger commitment to matrilineal customs, 17.7% of respondents feel that men have the right to use titles to property within their families. Some people say that men and women have equal rights in some Garo families. If a family has no daughter or if the daughters are unwilling to accept or manage the property, then sons become the rightful 'of the family property. One of the respondents of the study claims that,

"In previous times, the Garo couple who had no female child adopted a female child from another family, and the Garo mother gave her title to her adopted daughter. She took care of and reared the adopted daughter as her own daughter. He even provided the ownership of her property to her adopted daughter. But nowadays this type of custom almost perishes in the Garo society. Now, they register their property to their sons if they do not have female children. Even now, educated parents are equally distributing their property among their sons and daughters." (Sailen Chambugong, 42)

Another respondent of the study states as follows:

"According to the traditional matriarchal system, Garo female children have the right to take ownership of the whole property of their family. But, in recent times, numerous female children in the Garo society don't want to take the full inheritance of their parents' property. They want to keep a good relationship with their brothers. That's why they want equal distribution of the parent property among them." (Mahima Rangsa, 24 years old)

Table 03 also shows that 72.3% of respondents believe that modern issues like education, urbanization, cultural acculturation, and assimilation have no effect on how property is being distributed, showing that ancient traditions are strongly held in society. However, 12.3% see significant effects and 15.4% report a moderate impact, showing that modernization is progressively altering behaviour in some contexts. One of the respondents of the study claims that,

"The traditional property inheritance and distribution system in Garo societies is changing with the passage of time. In recent times, most of the children, both male and female, of the Garo communities are educated. They are conscious of their human rights, especially the concept of equal rights. They have a significant number of Bengali friends both offline and online. So they are becoming introduced to the patriarchal social system of the Bengali people. As a result, their traditional matriarchal culture is becoming assimilated with Bengali culture. So gradually, male members of the Garo family are demanding ownership of property. They have even organized different associations to obtain their property rights. Even though they launched an online platform, like a Facebook group named 'GARO EQUAL RIGHTS AGENCY OF BANGLADESH (GERAB) to obtain equal inheritance of property'". (Rudra Mrong, 23 years old)

Another respondent of the study stated as follows:

"In recent times, where there are no children in a Garo family, their relatives demand the ownership of the property. As the traditional custom of property distribution in Garo society is oral instead of written form, they don't want to obey the traditional customs of property distribution. By using political power and applying physical force,

relatives of those families take control of the property. Sometimes close relative engaged in conflict to take ownership of the property.” (Palash Mankhin, 27 years old)

For the future, 64.6% respondents perceive that property distribution practices are going to be changed, showing perhaps a shift in perspective that modernization, economic pressures, and external cultural influences may bring forth. While 24.6% do not see changes in property distribution, 10.6% remained uncertain, showing mixed opinions within the community. One of the respondents of the study claims that,

“In previous times, Garo parents transformed their property orally. So, Garo communities cannot sell their property. But now they can sell their property, if they want. Because now the ownership of property is handed to others in written form in the Garo society.” (Sailen Chambugong, 42)

These findings imply that although the traditional pattern of inheritance is valued, changing social and economic factors may, over time, merely influence gradual modifications to this set distribution of property.

Although the majority of respondents of the study think that property distribution practices are going to be changed in the future among Garo communities, 66.2% respondents regard the traditional distribution of property in Garo society as "very important," emphasizing their role in determining inheritance patterns. Also, 30% describe them as "moderately important," indicating that, while customs are valued, some flexibility may exist. One of the respondents of the qualitative section of the study claims that,

“Most of the male members of Garo communities demand that the female child should get the inheritance of the parents’ property. We think that women are safe guardians of property to preserve their families’ property rather than boys. Besides that, we consider the matrilineal property inheritance system as a sacred and significant custom of our ancestors. That’s why we don’t want to violate our traditional culture.” (Rudra Mrong, 23 years old)

Only a small percentage consider traditions "not very important" (3.1%) or "not important at all" (0.8%), showing little divergence from cultural norms. This shows the continued importance of cultural traditions in Garo family inheritance systems.

DISCUSSION OF THE STUDY

The people of Bangladesh's ethnic groups are known as "Adivasi" because of their unique social and cultural traditions, dialects, and customs. One of the most significant indigenous groups in Bangladesh with unique ethnic characteristics is the Garo. This study reveals the traditional and recent practice of property distribution in the matriarchal system of the Garo people with regard to their livelihoods. The Garo community has a rich cultural heritage, including traditions, customs, and practices. This study found that the primary heir of property in family 69.20% for the youngest daughter, known as the "nokna," usually receives the family property and takes on the burden of handling home affairs and caring for elderly parents. If the primary heir is unwilling to take the responsibility of the property, the majority of the property (76.2%) is distributed among other siblings, where female relatives receive 21.5% and the smallest amount, 2.3% goes to male relatives. This practice is more than just an economic arrangement; it is firmly founded in cultural traditions and spiritual

beliefs that highlight the value of maternal lineage. Traditional inheritance methods conform to accepted cultural and familial norms. The Garos, just like the Khasis, have a matriarchal social system. The children become introduced by mother title and they take their mother's given name as their surname. The daughters become the primary heir of maternal property and wealth. The two ethnic communities differ in the way that "while the Khasis ascribe to the youngest daughter the bulk of family inheritance, the Garos, on the other hand, by ascription recognize an heiress to family property from any of the daughters at the household, in which case, she is married to one of her father's nephews. Usually, the girl loved most, obedient, and well-behaved succeeds in that title. She is called Nokna, and her husband is Nokrom". However, in certain places in Garo society, they follow the rule and appoint the youngest daughter as their heir (Das & Mohanty, 2016).

According to the findings of the study, land is the most often inherited asset, accounting for 93.1% of all inheritances, emphasizing its importance in wealth transfer and economic stability. Livestock is inherited by 28.8% of people and serves as both a financial asset and a source of income, especially in agrarian communities. Houses, inherited by 33.8%, provide families with security and continuity, but jewelry, inherited by 14.6%, is a smaller but substantial item that is frequently associated with cultural and historical importance. The majority (83.80%) of the community expresses the opinion that there were rituals associated with the transfer of property, such as Nokrom-Gata, together with a praying family member and a mahari gathering. The majority (73.1%) of respondents agreed that women have primary influence over family property decisions; however, 26.9% reported shared decision-making, showing authority variability and possible cultural or social limitations on full female ownership. Despite the matrilineal framework, economic issues related to inheritance were low, with just 10% expressing disadvantages, indicating that the system is generally secure.

Exceptions to matrilineal norms took place, with 17.7% acknowledging men's inheritance rights, often in circumstances where daughters were unavailable or unwilling—a compromise between tradition and practicalities. Modern influences such as education and urbanization were viewed as mainly ineffective (72.3%), yet 27.7% reported moderate to considerable effects, indicating incremental shifts amid persisting traditions. While 90% recognized the system's advantages, such as stability, 80% also identified problems, most likely connected to economic limitations or inflexible gender roles. Looking ahead, 64.6% projected future changes in property practices, reflecting expectations of modernization's influence, while 24.6% projected continuity. Subverting the matriarchal family structure, some Christian Garos are now distributing land ownership and family resources between both girls and boys (Kabir, 2022). The Garo community has changed its expectations of the sex of the child. A study noted that the Garo community in Bangladesh focused on how legal and financial changes affected their matrilineal structure (Chowdhury, 2015). This study also shows that 27.7% of respondents believe that intermarriage with non-Garo communities has changed inheritance practices. No property gets a woman when intermarrying with non-Garo communities. If the main heir or other female heirs of the family marry into another community, they do not get property.

Findings of the study delineate that in modern times, Garo people, especially male children, build up friendships with Bengali people at educational institutions, workplaces, and on many occasions. So they become introduced to Bengali culture. This is totally opposite to their community culture. Because the patriarchal system exists in Bengali culture, the matriarchal system exists in the Garo communities. So, Garo male children are being introduced to the patriarchal land ownership system of the Bengali people. So they want to practice such culture among their communities. In the age of social media, most of the Garo people are connected with the people of mainstream society on Facebook. They build up friendship and interact with each other, so the Garo people are introduced to the land distribution system of other communities, especially of patriarchal societies. So, they also get information about the property distribution system of other communities on Facebook walls, online news portals, YouTube channels, and on other social networking sites. So, nowadays they demand inheritance of their parents' property.

This study finds that in a traditional system, female children will get their inheritance of their parents' property. But in recent times, most of the parents, especially those who are educated and conscious about their children's future, have distributed their property among their children before their death. But still now, parents give the lion's share of property to their female children. Most of the male children in the Garo family take it easily. They believe that female children are safe hands to preserve the property of their family. Male children can't preserve the property properly; they sell the property without any valid reason. But A significant number of Garo males are demanding reformation in the traditional distribution of property. They want equal distribution of property, not as a child but as a human being. A male child demands the inheritance of their parents' property as a symbol of their ancestors. Besides this, their parents' property will work as a safeguard in their future life. When they face any crisis in the future, they can utilize this property. So, many associations of Garo communities demand equal distribution of parents' property among their children. They arrange numerous meetings and seminars with the headman of the villages and present their demand about the inheritance of the parents' property. They talked with the headman of their village, who distributed the property of a family about their demand.

This study also finds that male children of the Garo society have launched a Facebook group named 'GARO EQUAL RIGHTS AGENCY OF BANGLADESH (GERAB) and propagate their demand on this Facebook group. This organization aims to remove gender discrimination and establish equal distribution of property among children by lineage. To establish equal rights, they offer seven point demands to the government of Bangladesh as follows: complete inheritance rights in family property; equal rights for men and women/sons and daughter both in all moveable and immoveable property of parents; responsibility of husband for the care, upbringing and maintenance of the children, If the wife dies; the right of children to inherit responsibilities and duties within society and family, including property management through the father's lineage instead of only the mother's lineage; full rights of father/husband over all movable and immovable property of the wife, if a women become died or a woman's children dies or a women unable to have children; equal rights in marriage as well as formation of a land commission. Due to the lack of a natural female heir, this suggests a departure from traditional Garo matrilineal standards. This pattern implies that the Garo community has occasionally been pushed into a patrilineal

paradigm by outside forces such as modernization, legal systems, social pressures, the concept of equal rights, education, digitalization, and patriarchal dominance.

CONCLUSION AND RECOMMENDATIONS

The Garo is one of Bangladesh's most prominent indigenous communities, with distinctive ethnic traits. By applying a mixed-method approach, this study has tried to find out the property distribution pattern among the Garo communities. The study has also explored the rights of women, particularly the nokna, in the management and distribution of family property. Findings of the study delineate that in the matriarchal system of Garo communities, property is passed down through the maternal line in a family, with the nokna in charge of protecting and dispersing assets. Findings of the study also delineate that the youngest daughter is the primary heir, but sometimes the eldest daughter, as well as other daughters, get the inheritance of property based on some exceptional cases. This system makes sure women, particularly the nokna, have significant control over family property, such as land, homes, and different assets. The transfer of property can be followed by specific rituals, such as the Nokrom-gata ceremony, in which family members meet for celebration and pray together. This tradition shows the cultural importance of property inheritance in the Garo society. Findings of the study elucidate that the nokna holds control over the family property, guaranteeing its preservation and proper distribution based on family needs. This system is inextricably linked to the traditional belief in matrilineal, in which the mother's side wields great authority and control over possessions. In the Garo community, land inheritance has a major effect on women's economic status. Women, particularly the nokna, hold significant power over land and other family assets because property inheritance is matrilineal in nature. Women gain economic independence by owning land and being in charge of its management and distribution. This control increases their social position by granting them authority in both the household and the larger community. Moreover, the ability to make decisions about property and wealth gives women a powerful role in family concerns, providing them with a level of autonomy that is unique in traditional nations. Land inheritance often passes down through the maternal line, supporting women's responsibilities as the key economic and social decision-makers in society. The study has provided that into traditional practices of property inheritance, with a focus on the role of the nokna (likely referring to the youngest daughter) in controlling family assets and land. Matrilineal land ownership influences Garo women's socioeconomic power, showing that access to property improves their decision-making independence, social status, and financial security, despite continued gaps in larger political representation.

Findings of the study delineate that the matriarchal property ownership system in Garo society has experienced numerous changes. Now, Garo communities are pursuing higher education in different public universities of Bangladesh, as well as they are going abroad for higher education. In the age of modernization and globalization, they are more connected to digital technology and digital literacy. On this platform, they are becoming connected with a diverse population of diverse cultures. So cultural assimilation is taking place among the Garo communities of Bangladesh. They are introduced with different ownership patterns of different societies. Generation Z (Gen Z) of Garo communities is much more updated in all sectors than their ancestors. They are much more connected with Bengali communities than

their ancestors. So they are much more familiar with the patriarchal social system of Bengali society, where men practice more property ownership rights than women. So gradually, men of the Garo communities are demanding equal rights in property ownership. Now, most of the parents of the Garo communities, especially educated parents, are distributing their property among their sons and daughters. Nowadays, even female children of Garo families want to share the ownership of their parents' property with their brothers. The study also highlights several challenges to the traditional practice system. Inter-marriage with non-Garo cultures has resulted in changes in distribution practices, with many women losing their rights to property if they marry outside the community. Education, urbanization, and changes in law that promote patrilineal inheritance have begun to challenge norms historically. But still now majority of Garo communities believe that modern influences have had no substantial impact on property distribution. According to the study's findings, the following recommendations have been provided to help the Garo community preserve their matrilineal tradition practice while tackling the problems given by industrialization and foreign influences: Governments need to acknowledge and legally preserve matriarchal inheritance systems, ensuring that they are not replaced by male laws that impose male-dominated inheritance rules. Policies should encourage community land ownership plans in order to minimize property dispersion and preserve traditional land governance institutions. Governments and non-governmental organizations (NGOs) should work with matriarchal communities to create policies that combine development with the preservation of traditional property distribution methods. Long-term study is needed to track how matrilineal inheritance changes through generations in response to modernity. Future research should look into the cost implications of switching from exclusively matrilineal to mixed or patrilineal systems. By responding to these research gaps and applying the recommended policies, the Garo community may preserve its cultural legacy while adjusting to modern societal transformations in a sustainable manner.

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Women's Participation in Local Level Politics: A Case Study on Nazirpur Upazilla

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ABSTRACT

This study examines the factors, patterns, and challenges regarding women's participation in local-level politics in Nazirpur Upazila. Based on Political Feminist Theory and Social Empowerment Theory, the study explores how social and cultural conditions influence women's political involvement at the local level. Applying a mixed-methods explanatory approach, this study integrated a quantitative analysis of 100 purposively sampled respondents with nuanced qualitative data gathered through semi-structured interviews to provide a multi-dimensional perspective. Secondary data were gathered from academic literature, policy documents, and government reports. Data analysis involved descriptive and inferential statistics to identify associations between socio-cultural variables and levels of political participation, complemented by thematic analysis to contextualize the findings. The findings reveal a significant gender gap: while male participation stands at 65%, women's direct engagement is limited to 30%. Furthermore, 67% of women reported that their voting choices are guided by their family opinions, reflecting a lack of individual political agency. The study identifies that patriarchal norms (77%), family restrictions, and limited political education are primary barriers to effective participation. A key contribution of this research is the creation of a cause-and-effect framework that proves how specific social barriers directly lead to women being left out of politics. Based on these results, the study proposes two models: one showing the cycle of barriers and another showing how education and training can lead to empowerment. The main limitation is that the research focused only on one Upazila. Future research should compare different regions and use more advanced models to better understand women's political empowerment across rural Bangladesh.

JEL Classifications: J16, H70, D72, P16, R50

Keywords: Women, Participation, Politics, Local-Level Politics

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INTRODUCTION

In a democratic political system, various methods are adopted to increase public involvement in politics. Both men and women need to participate to strengthen the political structure and its foundations. The country has made progress in gender equality and women's empowerment, but women still take part less in local political decision-making. Democracy and social justice cannot be established without women's representation and participation in politics (Ara, 2020; Rahman, 2015).

In Bangladesh, a country characterized by its vibrant democracy, women's active involvement in local-level politics is integral to achieving inclusive and effective governance. The Constitution and different laws give women the right to equal representation in local government. Yet, women are still fewer in elected posts. This lack of representation reduces the variety of ideas in policymaking. It also makes it harder to carry out plans that focus on women's needs and problems. At the same time, it keeps gender inequality alive in society (Bhuiyan, 2019; Ara, 2020).

Women are a part of society and half of the population of the world, and Bangladesh are women. But the presence of women in the arena of politics is very insignificant. They hardly participate in local-level politics. While women in urban areas have the opportunity to represent and participate in politics alongside men, they do not have the opportunity to participate in politics at the village or local level. The main reason for the low participation of women in politics is that our society sees politics as a place for men. Besides, there are social, religious, and cultural rules and regulations. Male party leaders consider men to be good candidates. A political party also has very little participation of women, whereas an election law requires parties to reserve at least 33% of committee positions for women. Despite women at the top, Bangladesh's politics are still male-dominated. Because of these class, economic, and cultural inequalities, women are still far from political power and policymaking (Ara, 2020; Rahman, 2015). The participation of men and women in building and developing the country's democratic system is absolutely desirable. As the central government is strengthened when local governments are strong, there is a need to increase the participation of men as well as women at the national level, as well as at the local level (Bhuiyan, 2019; Ara, 2020).

OBJECTIVES OF THE STUDY

The overall objectives are to gain a comprehensive understanding of the experiences, challenges, and contributions of women in the political sphere. The specific objectives are:

- 1) To assess the current status of women's participation in local-level politics.
- 2) To identify the challenges to women's political activities in local-level politics.

LITERATURE REVIEW

The political participation of women in Bangladesh is a central theme in democratic discourse. While scholars generally agree that gender inclusion is vital for social justice, empirical evidence suggests that women's effective participation, particularly at the local

level, remains constrained despite constitutional guarantees. The following sections categorise existing literature into the primary thematic barriers identified by previous research

Structural and Economic Barriers to Women's Political Participation

Many scholars identify structural inequality as a major barrier to women's political participation in Bangladesh. Khan (1988) argues that women's weak political position is closely linked to economic dependency and limited access to education. He states that without economic empowerment, women cannot exercise political power effectively. Similarly, Kabeer (1990) and Amin (1997) explain that poverty and gender inequality reduce women's autonomy within the household. Limited control over resources weakens women's bargaining power, which affects their ability to participate in public decision-making. Ullah (2018) also highlights economic dependence and patriarchal family structures as key obstacles to women's engagement in local government. However, most of these studies provide general discussions and do not focus on specific rural localities.

Cultural Norms and Patriarchal Practices

Cultural and social norms play an important role in shaping women's political participation. Jahan (1976) explains that practices such as purdah restrict women's mobility and limit their public visibility. She argues that traditional gender norms reduce women's interaction with political actors. Mannan and Khanam Meri (2016) also identify patriarchy as the main structural barrier to women's empowerment in politics. They note that although women hold visible leadership positions at the national level, grassroots participation remains weak due to deep-rooted cultural attitudes. Chowdhury (2009) adds that political violence and patriarchal culture discourage women from entering politics. These studies clearly show the cultural roots of exclusion, but they do not examine how these norms influence everyday political behaviour at the local level.

Representation versus Meaningful Participation

Several scholars distinguish between formal representation and substantive participation. Hasanuzzaman (2002) argues that women in reserved seats often lack real authority. He states that representation without power does not ensure meaningful participation. Similarly, Khan and Salma (2003) and Women for Women et al. (1999) argue that women's presence in governance is often symbolic. Women representatives frequently face resistance from male colleagues and receive limited institutional support. From a theoretical perspective, Pitkin (1967) and Mansbridge (1999) explain that representation must be substantive. Women must influence decisions rather than simply occupy positions. These arguments suggest that increasing the number of women in political institutions is not sufficient for real empowerment.

Institutional and Party-Level Constraints

Institutional weaknesses and party-cantered politics also limit women's participation. Riaz (2013) discusses broader structural problems in Bangladeshi politics, including weak institutions and centralized party control. He argues that internal party dynamics often marginalize women. Talukder (2012) examines rural local government and highlights

governance weaknesses, but does not deeply analyse gender-based barriers within these institutions. These studies show that institutional reform is necessary, yet they do not provide detailed field-based evidence from a specific Upazila.

Theoretical Perspectives on Women's Political Empowerment

Feminist Political Theory argues that politics has historically been constructed as a male-dominated space. Bryson (2003) states that equal participation requires transforming patriarchal power structures. Empowerment Theory emphasizes that women need knowledge, confidence, and resources to participate effectively in political processes (United Way NCA, 2022). These theoretical perspectives help explain why legal reforms alone cannot ensure meaningful participation. However, many theoretical discussions remain abstract and are not directly linked with empirical field research at the local level.

Research Gap and Position of the Present Study

Although previous studies clearly identify patriarchy, low education, economic dependence, and cultural norms as barriers, three major gaps remain:

1. Most studies focus on national politics rather than local-level political practice.
2. Many studies describe barriers but do not empirically test cause-and-effect relationships.
3. Very few studies provide area-specific field data from one Upazila to show how these barriers operate in everyday political life.

The present study addresses these gaps by focusing specifically on Nazirpur Upazila. Unlike earlier works that mainly provide descriptive discussions, this study uses field-based empirical data to examine how patriarchy, family influence, illiteracy, and cultural norms affect women's voting autonomy, meeting attendance, and direct political participation.

By connecting empirical findings with Feminist Political Theory and Empowerment Theory, this research not only identifies problems but also explains how structural and socio-cultural factors produce lower political participation among women. Therefore, this study contributes to existing literature by providing area-specific evidence and by linking theoretical arguments with measurable local-level realities.

METHODOLOGY OF THE STUDY

Research Design

This study used a descriptive-explanatory mixed-methods research design integrating quantitative and qualitative approaches. The quantitative component helped measure patterns of political participation while the qualitative component provided deeper explanations of the social and cultural dynamics influencing women's engagement in local politics. This combination ensured a comprehensive and reliable understanding of women's political participation in Nazirpur Upazila.

Study Area and Population

The research was conducted in Nazirpur Upazila, which is located in the Pirojpur District of Bangladesh. The target population consisted of individuals who are directly or indirectly connected to local-level political processes, including Union Parishad chairmen and members, Women representatives, Political activists, General citizens, students, and professionals. This diverse population allowed the study to gather wide-ranging perspectives on women's political activities and the barriers they encounter.

Sampling Technique and Sample Size

A non-probability purposive sampling technique was adopted because the study required respondents who possess knowledge, experience, or awareness of local political participation. A total sample of 100 respondents was selected. The sample size was considered adequate to generate meaningful quantitative results and support qualitative interpretations.

Data Collection Methods

Primary Data Collection: Three specific methods were used to collect primary data:

1. Structured Questionnaire Survey

A structured questionnaire containing both closed-ended and a few open-ended items was administered. This instrument generated quantitative data related to voting behavior, political participation levels, decision-making autonomy, and perceptions of barriers.

2. Semi-Structured Interviews

In-depth interviews were conducted with Union Parishad representatives, women members, teachers, and local leaders. This provided qualitative insights regarding societal norms, gender roles, political experiences, and the challenges women face.

3. Telephone and Online Interviews

These were used when respondents were not accessible in person. They ensured the completeness of data collection and helped avoid missing responses.

Secondary Data Collection

Secondary information was gathered from academic books, peer-reviewed journal articles, government publications, NGO reports, election statistics, census documents, and newspaper archives. These sources strengthened the credibility of the study by providing historical, policy-related, and contextual data.

Research Instruments

The research utilized a structured questionnaire for quantitative data and an interview guide for qualitative data. Both instruments were pre-tested with a small group of respondents to ensure clarity, relevance, and reliability before final use.

Data Analysis Techniques

Quantitative data were coded and analysed using both descriptive and inferential (differential) statistics. Frequencies, percentages, and distributions were used to present

respondents' demographic profiles and general patterns of political engagement. Qualitative data obtained from interviews were analysed using a thematic analysis approach.

Ethical Considerations

Ethical standards were strictly followed. Participation was voluntary, and respondents were informed about the purpose of the study. Personal identities were kept confidential, and all data were used exclusively for academic purposes. Respondents' consent was obtained verbally or in writing before participation.

CONCEPTUAL CLARIFICATION

Participation

Participation means being actively involved in political and social activities. It is not only about being present, but about speaking, influencing, and contributing to decisions (Kurebwa, 2016). Voting is one form of participation, but real participation goes beyond that. It includes having the power to shape outcomes and being part of decision-making processes (Kurebwa, 2016). The Constitution of Bangladesh guarantees equal political rights for all citizens. Article 28 gives women the right to vote and to stand as candidates in elections, which is an important legal step to ensure equality (Constitution of Bangladesh, Art. 28).

However, having rights does not always mean full participation. Social and cultural practices often restrict women's roles. Expectations to stay at home, family duties, and traditional attitudes can make it hard for women to join political activities (Kabeer, 1990; Amin, 1997). Many women are legally entitled to engage but are unable to do so because of movement restrictions, lack of support, or fear of criticism (Women for Women et al., 1999; Khan & Salma, 2003).

Participation can therefore be seen in a few main forms:

Participation	Formal Participation: Voting, contesting election.
	Active/Informal Participation: Expressing Opinion, joining discussions, influencing decisions.
	Opportunity Based Participation: Requiring not just rights but also education, freedom and support to act independently (Kurebwa, 2016).

Source: *Compressed by the author.*

True participation is possible when women have both legal rights and real opportunities. Support, resources, and encouragement are needed to ensure that women can contribute meaningfully.

Representation

Representation means women's views and needs are reflected in politics and governance. It is about having women present in political bodies and also ensuring that they are able to work effectively for people's interests (Pitkin, 1967; Mansbridge, 1999).

Representation usually takes two main forms:

Descriptive Representation: Women are present in numbers and hold political seats.

Representation

Substantive Representation: Women use their position to actively promote women's interests and bring change (Pitkin, 1967; Mansbridge, 1999).

Source: Compressed by the author.

Bangladesh has taken important measures to increase women's representation. The Constitution and later amendments created reserved seats for women at both the national and local levels (Constitution of Bangladesh, Art. 28; 14th & 17th Amendments). This has increased the number of women in politics. But numbers alone do not always mean power. Some women hold seats but cannot influence decisions or speak freely. In such cases, representation becomes symbolic rather than transformative (Ahmed & Rahaman, 2024). For representation to be meaningful, women must be empowered with knowledge, skills, and resources. Only then can they contribute fully to policy-making and governance (Mansbridge, 1999; Rahman, 2015).

THEORETICAL PERSPECTIVES

Feminist Political Theory serves as the foundation for this study, showing how women have often been excluded from politics because of patriarchal systems (Bryson, 2003). It highlights the need for equal representation and calls for removing barriers that stop women from taking part in politics (Bryson, 2003). Without women actively involved, democracy is incomplete and unfair (United Nations Women, 2014).

The theory also explains that simply increasing the number of women in politics is not enough (Bryson, 2003). Women must participate meaningfully having real influence over the decisions that affect their communities (United Nations Women, 2014). Their opinions must be heard and respected so that policies meet the needs of everyone (United Way NCA, 2022).

Empowerment Theory helps explain how women can gain confidence, knowledge, and skills to participate in politics (United Way NCA, 2022). Empowered women can overcome social, cultural, and institutional obstacles, allowing them to contribute effectively to governance (United Way NCA, 2022).

Together, these theories promote fair and inclusive local governance (Bryson, 2003; United Nations Women, 2014). When women take part, decisions are more balanced and policies better reflect the needs of the whole community (United Way NCA, 2022).

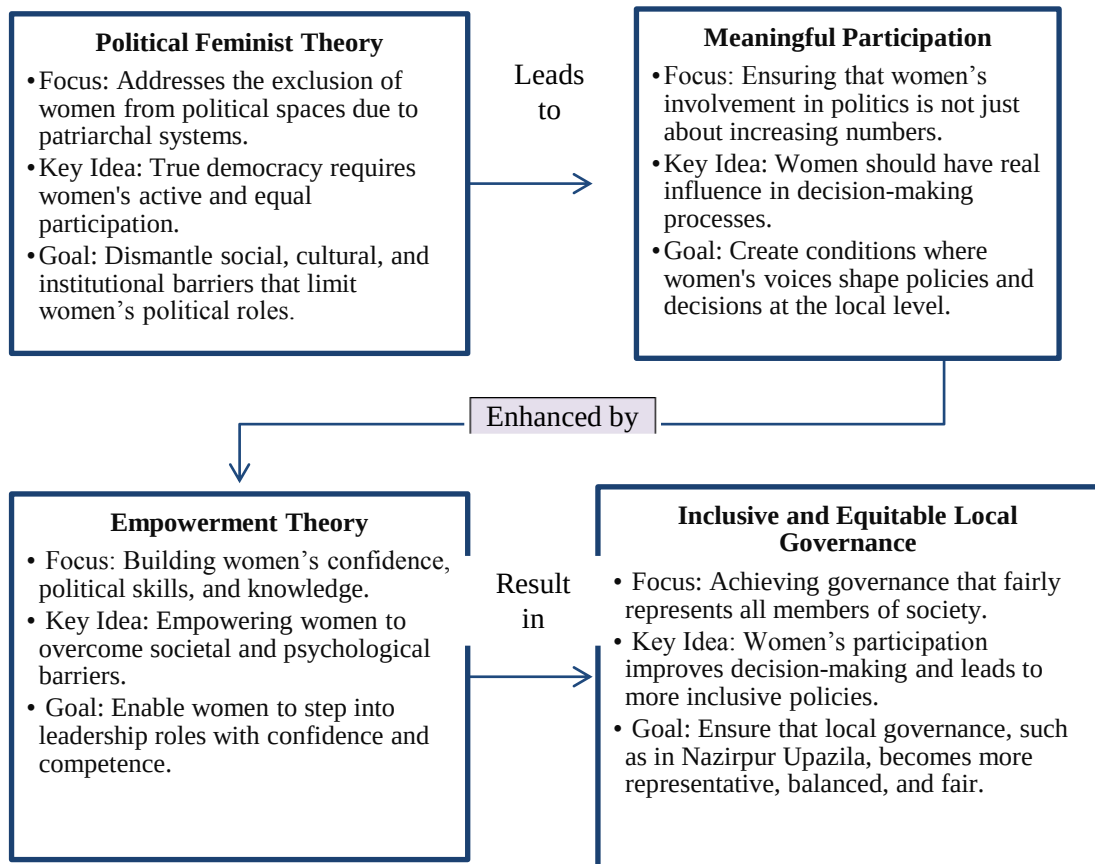


Figure 1: The Link Between Theory and Women's Political Participation at the Local Level

Source: Compressed by the author

Women's Participation at Local Level Politics: Data Analysis

Description of the Area

Nazirpur Upazilla is part of Pirojpur District in the Barishal Division of Bangladesh. Its total area is 233.65 square kilometres (90.21 sq mi). The total population is 180,408, and the population density is 770 people per square kilometer. Nazirpur is located at 22.7461°N 89.9678°E (Website of Nazirpur Upazilla, n.d.).

According to the 2011 Bangladesh census, Nazirpur had 40,561 households and a population of 180,408. Among them, 40,448 children (22.42%) were under 10 years old. The literacy rate for people aged 7 and above was 59.3%, which is higher than the national average of 51.8%. There were 1,011 females for every 1,000 males. About 4,730 people (2.62%) lived in urban areas (Website of Nazirpur Upazilla, n.d.). In the 1991 Bangladesh census, Nazirpur had a population of 166,014. Males made up 50.92% and females 49.08% of the population. The number of people aged 18 or over was 86,581. The literacy rate was 43.4% for those

aged 7 and above, which was higher than the national average of 32.4% at that time (Website of Nazirpur Upazila, n.d.).

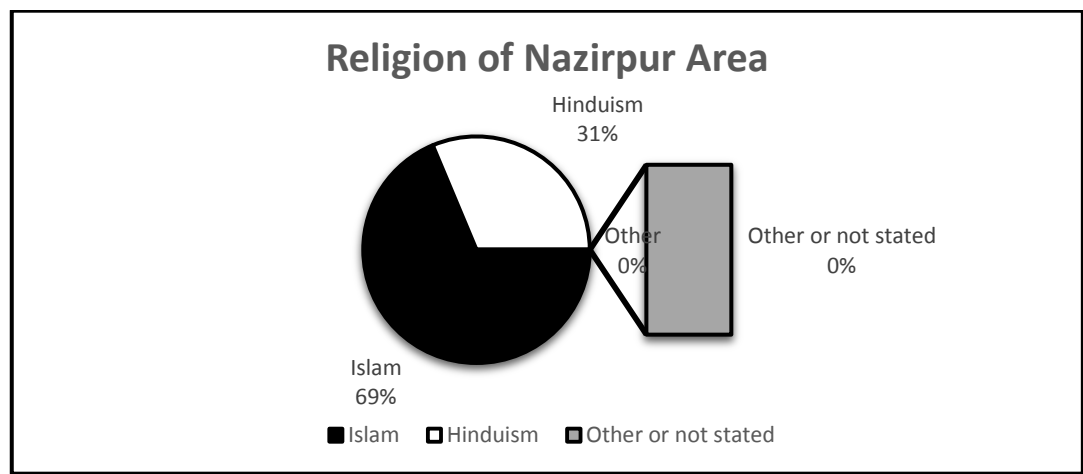


Figure 2: Religion of Nazirpur Upazila

Source: Website of Nazirpur Upazila, 2025.

Nazirpur Upazila is divided into nine union parishads:

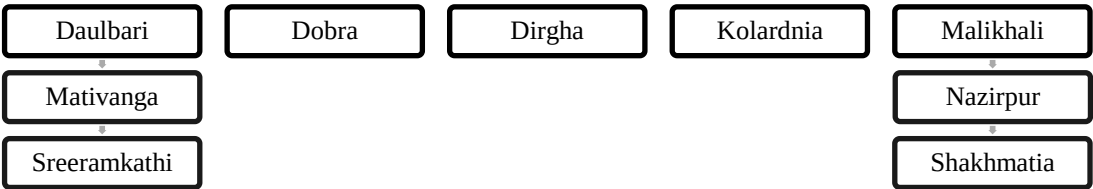


Figure 3: Religion of Nazirpur Upazila

Source: Website of Nazirpur Upazila, 2025.

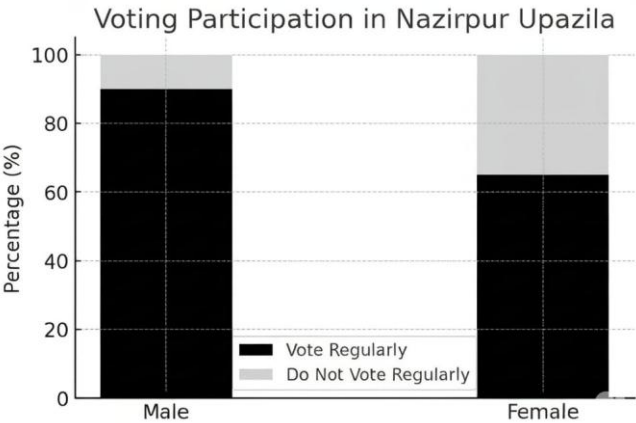


Figure 4: Percentage of Interest of the Non-representatives in Regular Voting

This study was done on 100 political participants in Nazirpur Upazila. There were 55 males and 45 females. They were asked if they vote regularly. Among men, 90% said

they vote regularly. Among women, 65% said they vote regularly. This shows that men take part in voting more than women. Women also vote, but their participation is lower compared to men.

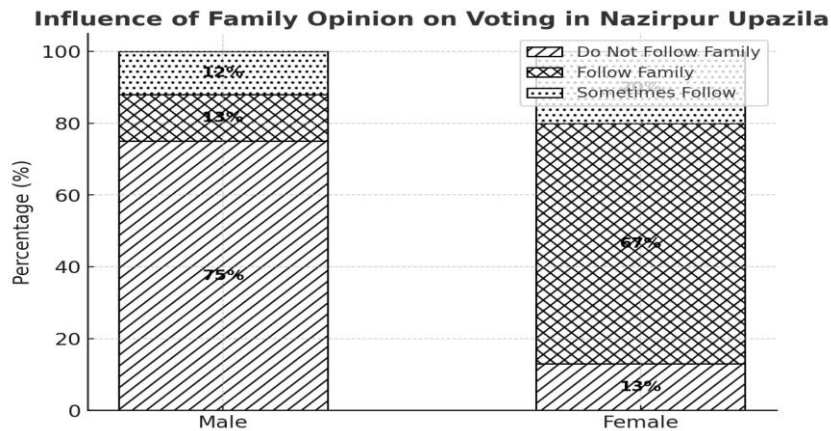


Figure 5: Analyse Voting Preferences Based on Family Members

This analysis, based on a survey of 100 participants, highlights a notable gender gap in voting autonomy influenced by family opinions. The findings show that a significant majority of men (75%) do not base their voting decisions on their family's opinion, reflecting a high degree of individual political agency. In contrast, a large portion of women (67%) stated that they do base their vote on their family's opinion. This indicates that while women are participating in the political process by voting, their choices are frequently guided by familial influence. Sometimes follow their family's opinion (12% of men and 20% of women) or do not (13% of both men and women). This data suggests that the political voice of women at the local level may be less independent compared to that of men.

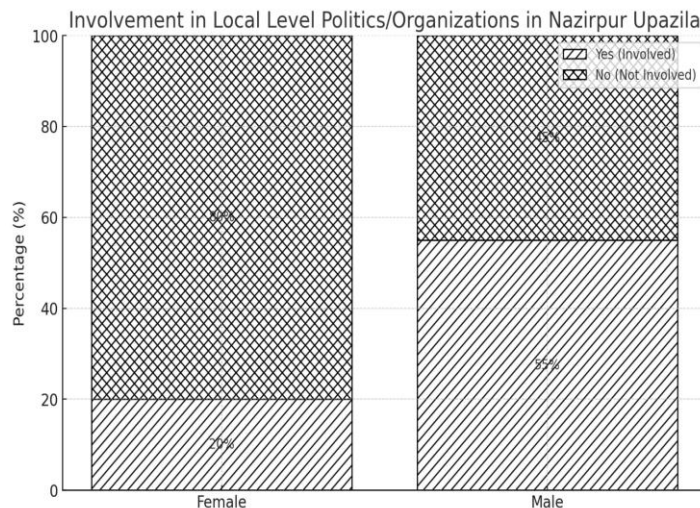


Figure 6: Grassroots Engagements-Direct and Indirect

In this research area, the level of involvement in local level politics and organizations shows a noticeable gender gap. According to the findings, 20% of women reported that they are actively involved in some form of local politics or organizational activities, while the majority, 80% of women, stated that they are not involved. In contrast, the participation rate among men is significantly higher: 55% of men reported involvement in local level politics or organizations, whereas 45% of men indicated no involvement.

This comparison highlights that men are more engaged in political and organizational activities at the local level than women. While a certain portion of women are participating, their level of engagement remains considerably lower than that of men, reflecting a persistent gender disparity in grassroots political participation in Nazirpur Upazila.

Table 1: Direct Political Participation in Nazirpur Upazila

Gender	Yes (%)	No (%)
Men	65%	35%
Women	30%	70%

The table shows that men participate more in direct politics than women. 65% of men said yes, while only 30% of women agreed. In contrast, 70% of women said No, showing lower political participation compared to men.

Table 2: Percentages of Attendance at Political Party Meeting/ Rally/ Convention/ Seminar

Gender	Yes (%)	No (%)	Sometimes (%)
Male	52%	15%	33%
Female	21%	67%	12%

Another question for them was whether they had ever attended any political party meeting, rally, or seminar. In response to this question, women did not respond as expected. 52% of men answered that they participated in these, 15% never, and 33% sometimes. In the case of women, it was observed that 67% women never participated in these, 21% women participated, and the remaining 12% participated occasionally. So, it is understood that men participate more in local level politics.

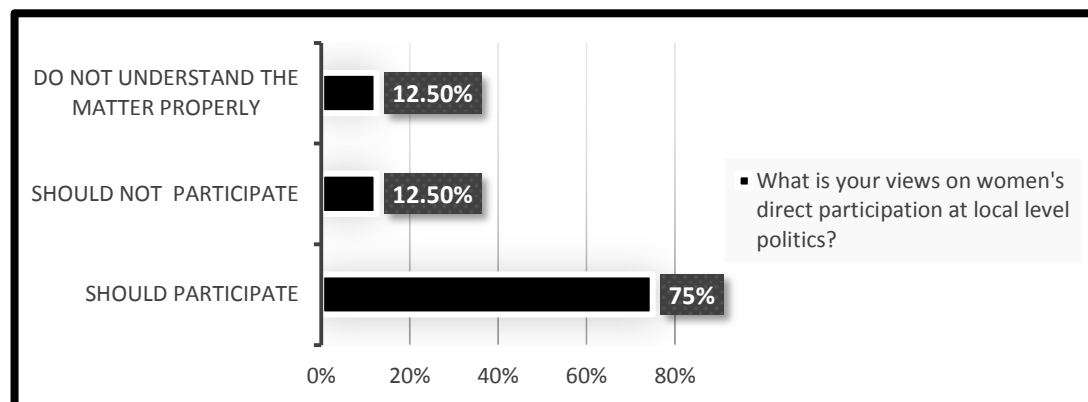


Figure 7: Views on Women's Participation in Politics

We wanted to know everyone's views on women's participation in direct local level politics. 75% people answered positively. They said women should participate. Only 12.50% of people said women should not participate. 12.50% of people were not able to understand what they would like to say.

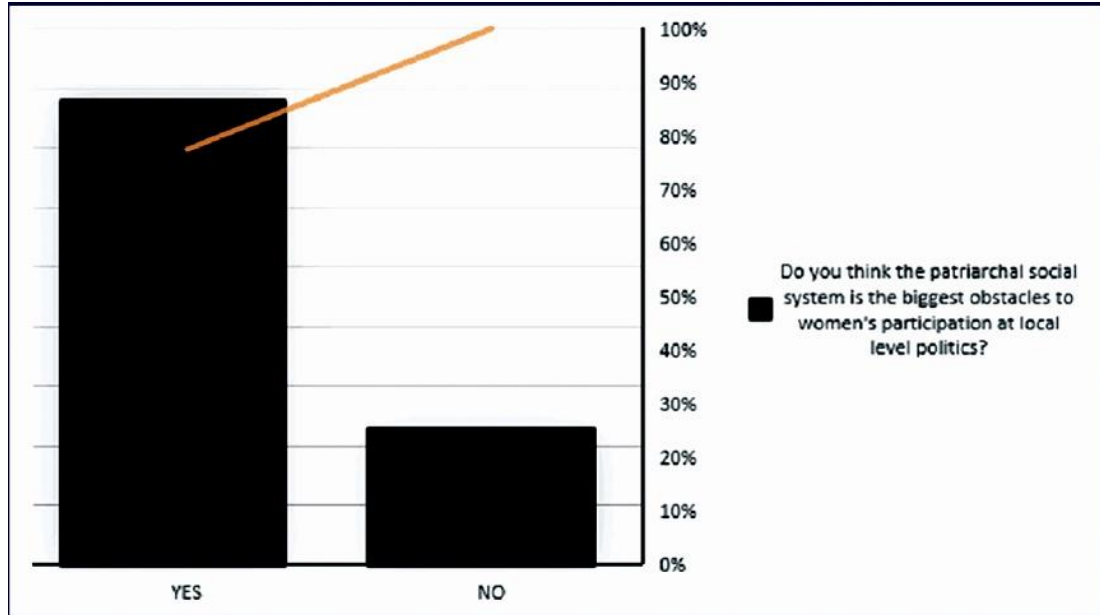


Figure 8: Views on Patriarchal Societal System

Due to the patriarchal society, women are left behind in almost everything. Because in this society, men are more dominant. Due to this, despite the desire of girls, they cannot do many jobs due to this social system. My question also referred to this patriarchal social system as a major barrier to women's participation in politics. 77% people answered yes, and the remaining 23% people disagreed that patriarchal society acts as a major barrier to women's participation in politics.

Table 3: See Literacy is a Barrier to Political Participation

Category	Consider literacy as a barrier to political participation (%)	Do not consider literacy as a barrier to political participation (%)
People Surveyed	70%	30%

There was a related question as to whether illiteracy acts as a barrier to women not wanting to participate in local level politics. 30% of people feel that illiteracy can never act as a barrier to participating in politics. 70% of people consider illiteracy a barrier; they think that uneducated people always believe in superstitions, and they are also not interested in social change.

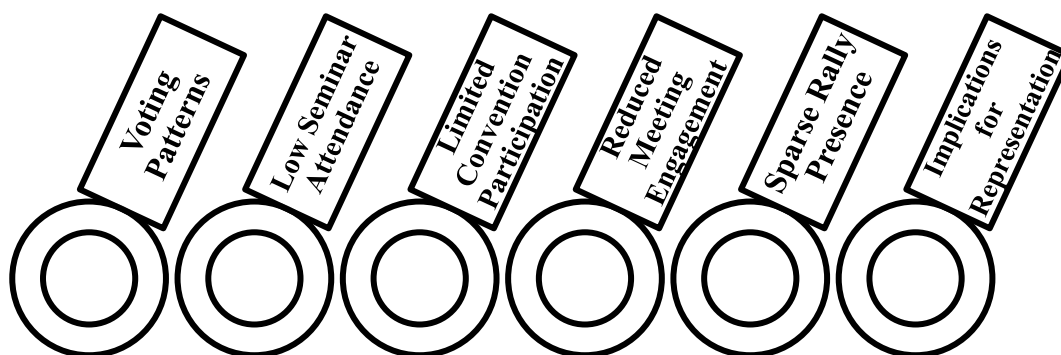
Table 4: Challenges Faced by Women in Local Level Political Participation

Barrier	Respondents (n)	Percentage (%)
Cultural and traditional barriers	29	29%
Family responsibilities	24	24%
Gender stereotypes	16	16%
Limited political education and training	13	13%
Limited representation and opportunities	8	8%
Limited access to resources/funds	6	6%
Lack of recognition	4	4%
Total	100	100%

The survey shows that the main barrier for women in local politics is cultural and traditional restrictions, as reported by 29 respondents. Family responsibilities are also a big challenge mentioned by 24 people. Gender stereotypes were pointed out by 16 respondents, while 13 said limited political education and training are an obstacle. Eight respondents mentioned limited opportunities, and six said a lack of resources or funds. Only four people felt that the lack of recognition was the main barrier. In general, cultural barriers and family duties stand out as the two biggest challenges for women's participation in local politics

FINDINGS OF THE STUDY

Less Political Participation of Women

**Figure 9: Less Political Participation of Women**

In Bangladesh, the constitution supports gender equality, but women's role in politics is still very limited. In Nazirpur Upazila, women are rarely seen in political meetings, rallies, or conventions. Their absence shows that women's voices are still missing in local governance. Men take part in voting and other political activities more regularly, while many women stay away because of social rules and family duties.

The study found that men usually decide their vote on their own, but many women follow the opinion of their family. This shows how cultural traditions and social norms still guide women's political choices. Household responsibilities also stop women from being more active, since society values their family role more than their public role.

Women also take part less in political seminars, which are important for learning about politics. Because of this, their knowledge and confidence remain lower than men's. Unless these spaces become easier and more welcoming for women, the gap in political awareness will continue.

Another finding is that most women who join politics in Nazirpur come from political families. Their involvement often depends on family background, not on equal opportunities for all. This means women from ordinary families rarely get the same chance. Such patterns raise questions about how inclusive local politics really is.

THE PROBLEM OF WOMEN'S PARTICIPATION IN LOCAL LEVEL POLITICS

Sex is one of the determinants of representation and participation in politics. In every society, women are less involved in politics than men. In this regard, there is a difference between urban and rural women. Because women in urban areas get the opportunity to represent and participate in politics along with men in various ways. But this does not apply to women in rural areas. In addition to rural-urban differences, there are differences in education, income, occupation, age, etc. that affect political participation. Despite such differences, it can be said that most women in the local area face the following problems in participating in politics:

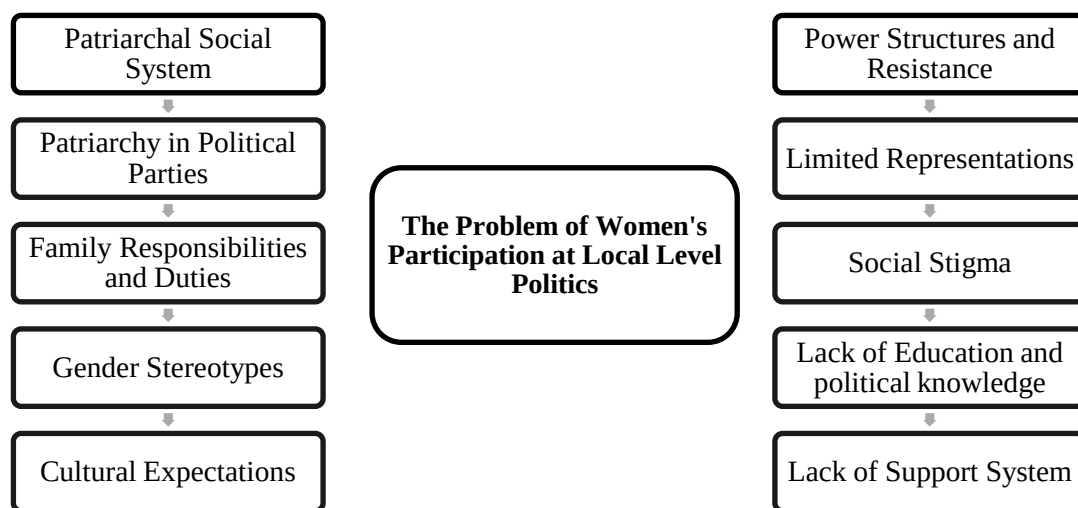


Figure 10: The Problems of Women's Participation at the Local Level of Politics

Women in local areas face many barriers when it comes to political participation. In most cases, their involvement is shaped by a patriarchal social system where men hold authority both in the family and in society. Women's activities are usually limited to the household, and in rural areas, they often cannot take part in politics without male permission. Even

voting sometimes happens under male influence, which reduces women's independent role in decision-making.

Political parties also reflect these patriarchal values. Most parties are controlled by men, and women are rarely given important roles. Party nomination and leadership opportunities are usually reserved for male members, while women's participation is often symbolic or neglected. As a result, women feel discouraged from joining active politics.

Family duties create another strong barrier. Women are expected to take care of household responsibilities, which leaves them little time or freedom to engage in public activities. Social expectations also make it difficult for women to balance political involvement with domestic roles. In many cases, society values their role in the family more than their role in politics.

Cultural traditions, social stigma, lack of education, and limited political knowledge further weaken women's participation. Women who do not belong to political families face even more challenges as they lack resources, recognition, and support networks. Together, these barriers create an environment where women's voices remain underrepresented in local politics, especially in rural areas like Nazirpur Upazila.

RECOMMENDATIONS

1. Teach women about politics so they can join confidently in decision-making and leadership.
2. Raise awareness to challenge old traditions and support equal roles for women in politics.
3. Provide the necessary support and resources to help women overcome barriers in political work.
4. Improve laws so women's voices and influence are stronger in government decisions.
5. Encourage families to help women balance their household duties with political responsibilities.
6. Break negative stereotypes so society accepts women as leaders.
7. Create groups and platforms where women can come together, share ideas, and take action.
8. Men should stand beside women and support gender equality in politics.
9. Political parties need to give women equal chances and leadership positions.
10. Women should join political meetings and forums to make governance more inclusive.

CONTRIBUTION TO THE EXISTING LITERATURE

This study adds to the existing scholarship on women's political participation by offering a grounded and analytically informed perspective from the local level.

To begin with, most research in Bangladesh has concentrated on national politics or broad rural trends. By focusing specifically on Nazirpur Upazila, this study brings forward detailed, field-based evidence from a single rural context. This localized focus allows the research to highlight everyday socio-cultural dynamics that are often overlooked in wider

national analyses. In addition, the study moves beyond a purely descriptive account of barriers. While earlier works identify patriarchy, family influence, and limited education as constraints, this research examines how these factors are directly reflected in women's political behaviour, including voting autonomy, participation in meetings, and involvement in local political activities. In doing so, it offers a clearer explanation of how structural conditions shape women's political agency. The study also strengthens the theoretical dimension of the discussion by bringing Feminist Political Theory and Empowerment Theory into a practical analytical framework. To illustrate the causal dynamics identified in the field, two conceptual models are proposed:

Cycle of Structural Barriers Model

Patriarchal Norms → Family Restrictions → Limited Education & Mobility → Reduced Political Confidence → Low Participation

This model explains how interconnected socio-cultural constraints gradually reinforce women's exclusion from grassroots politics.

Empowerment Pathway Model

Political Education + Training + Family Support → Increased Autonomy → Active Participation → Substantive Representation

This model outlines how targeted support mechanisms can enhance women's autonomy and lead to meaningful participation and representation.

Finally, by linking empirical findings with concrete recommendations, the study contributes not only to academic debates but also to policy discussions on gender and local governance. In this way, the research offers both analytical clarity and practical relevance to the ongoing discourse on women's political empowerment in rural Bangladesh.

CONCLUSION

Women's participation in local level politics is important not just for equality but also for better and fair governance. In areas like Nazirpur Upazila, many women still face problems such as cultural restrictions, lack of money, and social pressure. These challenges keep them away from active politics. If these barriers are removed, women can take part more fully in local decisions. To make this happen, society needs to change its views on women in politics. Training and education can help women to feel more confident. Financial and other support are also needed so women can compete equally. Both Political parties and government policies should give more chances to women and value their leadership. When women are involved, decisions become stronger and more balanced. Local governance also improves because it listens to both men and women. This helps not only women but the entire community. Reaching equal participation will take time and effort, but it will build a fairer and more developed society where everyone's voice matters.

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Microplastic Pollution in the Aquatic Environment of Bangladesh: A Legal Critique

Sarder Kaisar Ahmed¹, Tanvir Hasan², Md. Suton Ali³

ABSTRACT

Microplastics are ubiquitous in the aquatic environment of Bangladesh. Microplastics are thought to pose a major risk for aquatic ecosystems (i.e., inland water bodies and marine ecosystems). The microplastic contamination of marine habitats and inland water bodies has raised significant concern. Microplastics from untreated industrial waste disposal, household plastic trash, sewage sludge, soil accumulation, shipbreaking plastic debris, fishing nets, and other sources are present in the inland and marine habitats of Bangladesh. The study determines the overall risk of microplastic contamination in the aquatic ecosystems of Bangladesh. The study identifies institutional shortcomings and gaps in national and international legislation to address the microplastic contamination, highlighting the need for stronger regulatory frameworks and enforcement mechanisms to effectively mitigate this environmental issue. The study recommends implementing a "good faith cooperation" strategy among the neighbouring coastal states to control microplastic pollution in the Bay of Bengal, as the contamination in the marine ecosystem is transboundary in nature. To curb marine microplastic pollution, strict adherence to several international laws, such as UNCLOS and MARPOL, Annex V of MARPOL, is required by Bangladesh. Furthermore, it is suggested to modify the existing domestic legal mechanisms, such that precautionary measures should be preferred to remedial measures to address the irreparable loss caused by microplastics in the aquatic environment of Bangladesh. Comprehensive rules on 'Extended Producer Responsibility' should be implemented to hold plastics manufacturers accountable. Sanctions-based legislation alone is inadequate to deal with the issues. The Government of Bangladesh should offer fiscal incentives for the installation of effluent treatment plants to dispose of industrial plastic wastewater that later fragments into microplastics. The doctrinal method is followed to develop the theoretical premise for the legal implications of microplastics in aquatic ecosystems. This study focuses on the inland water bodies and marine habitats of Bangladesh.

Keywords: Microplastic, Aquatic Environment, Legal Gaps, Bangladesh

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INTRODUCTION

The production of plastic materials has increased worldwide, with 413.8 million metric tons produced in 2023 compared to 1.5 million metric tons in 1950 (Statista, 2025). Due to excessive production, poor management, and insufficient recycling rates, plastics can be found everywhere in the world, from the polar regions to the equator and from the tops of mountains to the deep oceans (Mishra et al., 2021). If nothing is done to clean up the water bodies, experts have warned that by 2050, the amount of plastic waste in water bodies would surpass the number of fish (MacArthur, 2016). Aquatic creatures, including fish, crabs, and prawns, may consume microplastics, which could have an impact on human health by way of the food chain (Zawad et al., 2024).

Microplastics (MPs), which are plastic particles smaller than 5 mm originating from various sources, pose a major threat to aquatic ecosystems and human health (Piexoto et al., 2019). MPs' pollution of the aquatic environment is currently a serious global environmental concern (Zawad et al., 2024). The problem of MPs' pollution in Bangladesh is getting worse as well (Kawser et al., 2024). Bangladesh was the first nation to implement restrictions on plastic bags in 2002, following the early identification of the issue (Xantosh and Walker, 2017). Bangladesh is the second largest producer and exporter of ready-made garment products, which may contribute microfiber pollution to the water bodies (Swazan and Das, 2022). One of the main factors of MPs contamination in the environment is improper treatment of plastic debris (Kawser et al., 2024). Bangladesh discharges untreated waste into waterways that connect with its major water courses (Miah et al., 2023). Bangladesh introduces MPs into the marine environment through the Bay of Bengal (Kawser et al., 2024). MPs are spreading across the food chain and eventually into the human digestive system (Haque et al., 2023), raising concerns about potential health risks associated with microplastic consumption. Thus, the presence of MPs in water bodies garnered a lot of research interest (Parvin et al., 2021).

From a legal perspective, research on MPs in aquatic environments receives minimal attention in Bangladesh. To this effect, the study points out the shortcomings of national and international laws aimed at regulating MPs in aquatic environments. The study also notes that MPs in the aquatic environment can be difficult to detect and manage without high technology. Several mitigation strategies are suggested by the study: improving waste management strategy (e.g., installing an effluent treatment plant), enforcement of existing laws, putting in place a 'good faith cooperation' strategy in the regional context, and enacting 'extended producer responsibility' regulations in Bangladesh. It is also necessary to implement financial incentives for proper plastic waste disposal and recycling to produce energy.

METHODOLOGY

The doctrinal research approach is employed to conduct the legal study. The method aids in the development of the theoretical framework and concepts pertinent to the research investigation. This study utilizes both primary and secondary data collection methods. Primary data are obtained from legal sources such as national legislation, international conventions, covenants, treaties, and reports from various international organizations. The

critical legal study (CLS) of legal instruments substantiates the research's claim and identifies the precise discrepancies in existing national and international laws.

Secondary data are obtained from various textbooks, journals, newspapers, legal reviews, case reports, opinions, and policy discussions among governments, non-governmental organizations, and international entities regarding the problem. The majority of the collected data is gathered to corroborate the findings derived from the analysis of national and international legislation concerning microplastic contamination in Bangladesh's aquatic environment.

MICRO-PLASTIC IN THE AQUATIC ENVIRONMENT OF BANGLADES

Microplastic

Every year, more than 400 million tons of plastic are manufactured worldwide. Plastic breaks down into microplastics, which are particles smaller than five millimetres, and then into nanoparticles, which are particles smaller than 0.1 micrometres (Hasan, 2019). MPs can be categorized into primary and secondary groups based on their origins (kasmuri et al., 2022). Primary MPs are polymers that are designed to be as small as possible. Under the broader definition of microplastic size, pellets composed of virgin plastic can also be classified as primary microplastics. In exfoliating hand cleansers and face scrubs, microplastic "scrubbers" have taken the role of conventionally used natural ingredients, including pumice, oatmeal, and powdered almonds (Pourebrahmi and Pirooz, 2023). Tiny plastic particles that are produced as bigger plastic garbage breaks down both on land and at sea are referred to as secondary MPs. A variety of physical, biological, and chemical processes can cause plastic garbage to break apart, gradually reducing its structural integrity. Extended exposure to sunlight causes the polymer matrix in plastics to oxidise due to ultraviolet (UV) radiation, which destroys bonds. Over time, the fragments continue to shrink until they are as small as microplastics. Microplastics are believed to have the potential to decompose into nanoplastics, even though the smallest microparticle currently found in the oceans has a diameter of 1.6 μm . The creation of biodegradable plastics could serve as a replacement for traditional plastics. However, they could potentially be a source of MPs (Nabi et al., 2021).

Micro-Plastic Pollution in the Aquatic Environment of Bangladesh

Microplastics, due to their very tiny size, are easily consumed by aquatic life. When smaller aquatic animals (primary consumers, such as zooplankton) ingest microplastic pollution, they are then transferred to secondary consumers, like large fish, and finally to tertiary consumers, like humans, causing significant disruptions to the food chain (Devriese et al., 2015). According to the World Bank (2021), Bangladesh produces about 3,000 tons of plastic garbage every day, of which only 36% is recycled. Floodwaters during the monsoon season take this waste straight into rivers and down the shore (Naeem, 2025). A hotspot for marine trash is the Bay of Bengal, particularly around the shore of Bangladesh. Research indicates that more than 70% of the debris discovered in nearshore areas is made of plastic (Bera et al., 2021). A recent study has reported that the Bay of Bengal and adjoining rivers have high concentrations of MPs (Kumar et al., 2022). It's also been reported that MPs in the Bay of Bengal are generated from industrial or wastewater discharge, settlement areas, local

fishing activities, and recreational and tourism activities (Rakib et al., 2022). Plastic waste from the land is dumped straight into the BOB through groundwater, rivers, canals, sewers, floods, tides, or atmospheric deposition (BOBLME, 2011). Bangladesh lacks domestic waste treatment facilities, so all urban wastewater with plastic and microplastic debris either directly or indirectly enters into the river (Alam et al., 2021). Each year, 4 million tons of plastic debris are released into the Bay of Bengal by all of the rivers in Bangladesh and India (Kumar et al., 2022). By 2060, Bangladesh is expected to release 3 million tons of plastics into the Bay of Bengal (Labreton & Andrady, 2019).

According to recent studies, up to 3 billion microscopic bits of micro-sized plastics could be released into the Bay of Bengal daily by the combined flows of the Padma, Brahmaputra, and Meghna rivers (Napper et al., 2021). The Karnaphuli River and the Pashur River, respectively, receive city trash containing microplastics from Chattogram and Khulna, polluting aquatic life in Bangladesh. The 177 rivers that discharge into Bangladesh's Sundarban mangrove ecosystem cause plastics to accumulate over time in the sediments and surface water (Adyel and Macreadie, 2021). Fishing nets, lost fishing gear, and plastic debris can all be drifted towards the Sundarbans. Due to unregulated relief goods packaged with plastics, more than 56 tons of plastic litter were observed in the Sundarbans immediately following the cyclone Amphan in 2020. A significant volume of plastic entering the Sundarban region can ravage the aquatic lives of the coastal mangrove forest (Ghosh, 2020). The degradation of large plastic into microplastics in the aquatic life of Sundarban mangroves will be negatively impacted for a long time as water toxicity would rise (Kumar et al., 2022). Various aquatic creatures in the Sundarbans, including sharks, fish, turtles, mollusks, crabs, prawns, and zooplankton, contain MPs that eventually transfer to the food chain (Sarker et al., 2022).

The Bangladesh tannery sector is another source of land-based plastic pollution that has the potential to seriously harm aquatic ecosystems (Chakraborty et al., 2013). The Buriganga is one of Bangladesh's most important urban rivers due to its location (Akber et al. 2020). There is a significant load of microplastics (MPs) in this river's sediment, water, and aquatic biota, which includes fish, crabs, and snails (Haque et al., 2023). Municipal plastic waste and industrial plastic waste are also major sources of MPs in the inland aquatic ecosystem of Bangladesh. Some tourists and locals also throw plastic waste straight into lakes and ponds (Islam et al., 2022). A recent investigation of "cotton cloth sampling" discovered that MPs made up 0.49, 1.48, and 4.01% of the total suspended solids (by weight) in Dhanmondi Lake, Ramna Lake, and Hatirjheel Lake, respectively (Shadia et al. 2020).

LEGAL FRAMEWORKS ON THE MICROPLASTIC POLLUTION IN THE AQUATIC ENVIRONMENT

The study examines national and international laws pertaining to MPs in aquatic environments. Given the transboundary nature of MPs in marine ecosystems, international legal provisions are necessary to investigate.

International Legal Frameworks

Significant international treaties, guidelines, conferences, and protocols address pollution in aquatic ecosystems. Very few MPs' control mechanisms are traced out in the international legal provisions, which has resulted in inadequate enforcement and oversight of pollution management in aquatic ecosystems. In addition, Bangladesh, being a developing state, does not adhere to any of the current legal provisions concerning the strategy for managing marine plastic trash, port management, and the sustainable use of shipbreaking yards. These legal uncertainties of MPs' pollution in the aquatic ecosystems have led to investigating the following international legal instruments.

Protection of Marine Eco-system under the 'UNCLOS 1982'

The safeguarding of the marine environment constitutes a fundamental commitment under international law for all governments, which were urged to enhance their focus on the risks posed by MPs to the ocean through international conventions and treaty. The fundamental objectives of this regime, articulated in the preamble of the United Nations Convention on the Law of the Sea (UNCLOS), encompass the "equitable and efficient utilization" and "conservation" of ocean resources, aimed at fostering "the realization of a just and equitable international order" (Mendenhall, 2023). Part XII of UNCLOS delineates explicit regulations and standards concerning terrestrial pollution, which have minimally influenced, if at all, state conduct regarding plastic pollution. It is noteworthy because it is the first attempt to outline a broad framework and structure for a legal regime that configures the duties, responsibilities, and authority of states in the protection of the maritime environment. The Convention's Part XII addresses the preservation and conservation of the marine ecosystem. The Convention expressly requires states to safeguard and conserve the marine environment (UNCLOS 1982, Art. 192).

As a member state of the convention, Bangladesh must protect and safeguard the marine ecosystem. It requires States to take all necessary steps in accordance with this Convention to prevent, lessen, and control pollution of the marine environment from any source, using the best available and reasonable methods within their capabilities. Member States are to take all necessary steps in accordance with this Convention to prevent, lessen, and control pollution of the marine environment from any source, using the best available and reasonable methods within their capabilities (UNCLOS 1982, Art. 194 [2]). States are required to ensure that operations that fall within their purview of 'no harm' to the neighbouring states or their ecosystems (UNCLOS 1982, Art. 194 [3]).

According to the UNCLOS 1982, member states must introduce garbage management plans (GMPs). Henceforth, it highlights the precautionary principles authorizing the states to take proactive measures to avert injury. Wait for scientific certainty to prove the marine pollution is unnecessary. Pollution from land-based sources (industrial discharge, agricultural runoff), atmospheric sources (airborne contaminants reaching the sea), dumping, etc. is expressly addressed (UNCLOS 1982, Art. 194 [3]). It addresses pollution from ships and offers a framework for controlling discharges that may include plastic. Member States are required to take action to stop, lessen, and manage pollution of the marine environment from land-based sources, which are the main source of MPs

(UNCLOS 1982, Art. 207). To address particular marine pollution challenges, UNCLOS urges governments to sign regional agreements that permit customized microplastic policies.

Challenges of the 'UNCLOS' to Avert Microplastic Pollution

The UNCLOS, 1982 approach is too general to meet the specific threats like MPs in marine ecosystems. The Convention says that governments must protect the marine environment, but it doesn't include any specific, legally binding steps to stop pollution, especially new problems like MPs and trash on land. The facilities and infrastructure required for the appropriate disposal of ship waste are lacking in many developing nations like Bangladesh. The list includes insufficient resources for monitoring and enforcement, limited port receiving facilities, and subpar waste management systems.

However, microplastics (small plastic particles less than five millimetres in size) are not specifically mentioned by UNCLOS (the United Nations Convention on the Law of the Sea) as a distinct marine pollution. UNCLOS lacks strong procedures to enforce pollution management measures, notably those pertaining to MPs, and mostly depends on member states' voluntary compliance. Coastal governments abide by standards that merely specify what they should do; they do not specify penalties. When parties fail to fulfil their commitments for maritime environmental protection, UNCLOS, the foundation of the global framework for marine environmental protection, cannot impose sanctions on them (Ma & Liu, 2023). MPs, or marine pollutants, are trans-boundary in nature, with particles often transported by ocean currents. Clear procedures for dealing with these transboundary effects and holding states responsible for MPs that harm other jurisdictions are not provided by UNCLOS, which creates challenges in enforcing accountability and ensuring effective marine environmental protection across borders.

In respect of jurisdiction and enforcement, the Convention faces challenges very often. The difficulty of implementing UNCLOS is best exemplified by the South China Sea. The treaty accuses China, a member, of violating its terms by using its "nine-dash line" to claim almost the entire territory (Wisnugroho, 2023). Any legal system will inevitably have some degree of non-compliance; as long as it stays within acceptable parameters, there should be no excessive concern. A minimum of one-third of total member states violate the provision of the UNCLOS. Such a level of non-compliance undermines the UNCLOS's credibility and integrity. Additionally, such a higher degree of noncompliance damages the marine ecosystem (Churchill, 2013) by leading to overfishing, habitat destruction, and pollution, which threaten marine biodiversity and the health of oceanic environments.

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal 1989

In order to reduce the production of hazardous waste and regulate its cross-border movement, the Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and Their Disposal, which was adopted in 1989, is an important international agreement (Kummer, 1992). The Convention requires countries to ensure that hazardous wastes are managed responsibly and promotes the development of national programs and plans to stop and lessen hazardous waste production (Wu, 2022). The Basel Convention's 2019 amendment specifically covers some types of plastic waste, drawing

attention to the problem of plastic pollution on a global scale. This amendment lessens the possibility of inappropriate disposal, which can lead to the microplastic pollution of marine life, by regulating the transboundary movement of plastic trash. The Basel Convention seeks to prevent the dumping of improperly managed trash in nations with poor infrastructure by demanding prior informed agreement for the export of hazardous and mixed plastic waste (Basel Convention 2019, Amendment to Annexes II). The Convention backs ideas like encouraging people to make less waste and making people who make waste responsible for getting rid of it properly. These ideas can help MPs.

Weakness of the Convention to Address the Microplastic Pollution

Since MPs frequently come from sources other than transboundary waste movement (such as tire wear, textile fibers, and the breakdown of plastics that are already in the environment), the Convention does not specifically address them. Enforcing adherence to the Convention's terms is challenging due to inadequate enforcement and monitoring systems, especially in poor nations that are most susceptible to garbage dumping. Domestic waste management systems, a significant source of microplastic contamination, are not adequately addressed by the Convention, although controlling transboundary trash is crucial. The Convention mainly ignores downstream effects like microplastic contamination because it fails to hold wealthy countries sufficiently responsible for the life cycle of the plastic items they manufacture (Kummer, 1992).

Micro-plastic Pollution and the Regime of International Convention for the Prevention of Pollution from Ships (MARPOL, 1973/78)

The 1973 MARPOL Convention aims to minimize unintentional releases of oil and other hazardous materials and to prevent operational releases that could pollute the marine environment (Saikot et al., 2025). Parties are required to implement the Convention's provisions for ships under their jurisdiction and flying their flag. Ships must create and carry out waste management plans, which must include protocols for handling and reducing plastic trash. MARPOL mandates that ports provide facilities for receiving waste from ships, including plastics. This lessens the pollution caused by MPs and helps stop the unlawful dumping of plastics (Hussain et al., 2023). Ships are not allowed to release any plastics into the ocean, including packaging materials and synthetic fishing gear, according to MARPOL Annex V. By stopping macroplastics in the marine environment from decomposing into MPs, this clause indirectly addresses some sources of MPs, such as the breakdown of larger plastic debris that can contribute to microplastic pollution (MARPOL Convention 1973, Annex V).

Challenges to Combat with Micro-Plastic Pollution under the MARPOL Regimes

The convention places little emphasis on preventing MPs from entering the marine environment via ship-based sources, instead focusing on visible debris (MARPOL, Annex V). MPs from other sources, including synthetic fibres or industrial abrasives, which can potentially be discharged from ships, are not governed by MARPOL. Land-based activities are the primary source of MPs contamination. The major contribution of land-based MPs that infiltrate marine habitats is not addressed by MARPOL (Lau et al, 2020). Nonetheless, Bangladesh acceded the MARPOL Convention, 1973 and later acceded the Annex V of the

Convention (MOS, GOB), the country has not put any enabling laws into place to carry out the MARPOL Convention at the national level (Saikot et al, 2025). In order to enforce its legal obligations, MARPOL, like other international treaties, is dependent on the institutional, financial, and regulatory capability of the member states. Coordination between legislative, administrative, and enforcement efforts is essential for effective control of MPs pollution in marine eco-system (Xu & Chang, 2017). Bangladesh can't provide sufficient arrangements to comply with MARPOL. But in 2004, the Department of Shipping in Bangladesh prepared the draft of the Marine Environment Conservation Act 2004 (Karim, 2010). Unfortunately, the draft law has not yet to enact.

Montreal Guidelines for the Protection of the Marine Environment against Pollution from Land-Based Sources 1985

The United Nations Environment Programme (UNEP) adopted the Montreal Guidelines as a series of non-binding guidelines to combat marine pollution from land-based sources. The Guidelines set the stage for tackling problems like MPs (microplastics), which mostly come from terrestrial activities, by acknowledging that land-based sources contribute significantly to marine contamination. 80% of litter worldwide originates from land-based sources and enters the marine ecosystem (Hasan, 2017). The guidelines include a checklist for national laws and the creation of international, regional, or sub-regional agreements (Hasan, 2017). The guidelines require the negotiation of internationally accepted norms and regulations. The annexes provide recommendations on control methods. The Guidelines strongly emphasize the principle of prevention, which includes waste management and treatment systems that subtly address the causes of microplastics, such as inappropriate plastic waste disposal. To this effect, the Guidelines address the no-harm principle, stating that it is the responsibility of the states to ensure that discharges from land-based sources inside their jurisdiction do not contaminate the marine environments of other states or regions outside of their national borders (Montreal Guidelines 1985, para. 3). Under Appendix I of the Guidelines, states have the responsibility to take measures for a zero discharge approach, uniform regional emission standards, environmental assessment activities, and the declaration of specially protected areas (Montreal Guidelines, Appendix I).

Challenges to Avert Microplastic Pollution under the Montreal Guidelines, 1985

The Guidelines are not legally binding, meaning countries are not obligated to implement them, leading to inconsistent and often inadequate application across different regions. MPs from modern sources like synthetic textiles, tire wear, and industrial processes were not considered in the guidelines, making them insufficient to tackle these specific pollutants. The Guidelines do not adequately address the role of consumer behaviour, product design, or industrial practices in generating MPs, leaving a significant gap in preventive strategies. Though the guidelines emphasize regional cooperation to prevent, reduce, or control pollution from land-based sources, it is practically not possible in many parts of the world due to financial and geopolitical differences. The guidelines fail to formulate the principle of beneficial neighbourliness. Currently, there are relatively few institutional elements in place to regulate marine pollution from land-based sources on a global and regional scale, which hampers effective cooperation and enforcement of pollution control measures across different nations. Some successful examples of advancement can be seen in regional marine

areas, such as the North East Atlantic, where developed states exist in the region. Success is also evident in regions like the Mediterranean and Baltic Sea, which include both developed and developing nations (Hasan, 2019). The guidelines fail to address the special needs of the developing and least developed regions. In the regions of the world where developing states constitute the majority, such as South Asia and parts of Africa, conditions are still rudimentary. Knowledge gaps, lack of high-tech equipment, inadequate participation by local governments, insufficient incentives for creative ventures, and corruption at all levels hinder the protection of marine ecosystems in South Asia and Africa (Hasan, 2019).

In Bay of Bengal regions, there are no regional binding legal instruments relating to preventing, reducing, or controlling plastic pollution from land-based sources. Even Bangladesh can't manage MPs in maritime boundaries due to weak management systems of waste disposal in coastal urban centres like Chittagong and Khulna, ineffective land-based plastic pollution regulations, financial incapacity, a lack of political commitment, and a lack of interstate collaboration through regional legal frameworks (Naeem, 2025).

United Nations Conference on Environment and Development (UNCED) 1992

In the field of international environmental governance, the 1992 Rio de Janeiro United Nations Conference on Environment and Development (UNCED) is considered a seminal occasion. Agenda 21 of Chapter 17 includes guidelines and recommendations regarding the degradation of the Marine environment due to a variety of causes (Hasan, 2019). Though the Declaration is not legally binding, it provides the environmental principles (i.e., the precautionary principle, the no harm principle, and the polluter pays principle) that have significant legal effects as a customary rule of international law. However, the Declaration recommends member states adhere to its action plan to protect the marine environment on a global, regional, and national level. The Declaration emphasizes the necessity of an integrated approach to managing marine and coastal ecosystems. UNCED established the framework for multi-stakeholder programs like the Global Partnership on Marine Litter (GPML) to fight plastic and marine pollution (McCammon, 1992).

Challenges to Curb Micro-Plastic Pollution in the Aquatic Eco-system under the Premise of UNCED

The UNCED did not specifically mention MPs or plastic pollution as separate issues. MPs were not yet acknowledged as a significant environmental issue at the time of the summit. Because of this, its frameworks and guiding principles are still too broad to adequately address the unique problems presented by MPs. Because UNCED results lacked strong monitoring and enforcement mechanisms, countries implemented them inconsistently (Prudencio, 1993). Weaknesses include implementing the polluter pays principle as the principle challenge to assess the exact environmental cost that allows polluters to avert responsibility. This is especially troublesome when it comes to transboundary concerns where international cooperation and compliance are essential, i.e., microplastic contamination in marine ecosystems. UNCED did not foresee developing pollutants like microplastics and instead focused on old pollutants like heavy metals and oil spills. This oversight has reduced its applicability in addressing today's issues.

Stockholm Convention on Persistent Organic Pollutants (POPs, 2001)

In order to protect the environment and human health, the Stockholm Convention on Persistent Organic Pollutants (POPs) addresses the precautionary approach of Article 15 of the Rio Declaration against substances that accumulate in living things, persist in the environment for extended periods of time, and pose serious hazards (Stockholm Convention, 2001). Persistent organic pollutants, some of which are linked to MPs (for example, as additives), are intended to be eliminated or their usage restricted by this convention. Plastic additives, including stabilizers and flame retardants, include a variety of persistent organic pollutants (POPs). The convention reduces the amount of POPs released into the environment and their presence in the environment by regulating or outlawing a number of them (Stockholm Convention, 2001). The Convention indirectly lessens the harmful effects of MPs in marine environments by focusing on substances like DDT and PCBs (polychlorinated biphenyls), which cling to MPs.

Weaknesses of the Convention to Address Micro-Plastic Pollution in the Aquatic Environment

Persistent organic pollutants, not plastic or microplastics, are the subject of the Convention. The physical characteristics or origins of MPs in the marine environment are not regulated by it (Boethling et al, 2009). Since the main goal of the Stockholm Convention is to regulate chemical pollutants, MPs are not specifically addressed by it. At the time of the treaty's adoption, MPs were not generally acknowledged as a significant problem. Only a particular list of POPs is the focus of the convention. It does not include a wide range of substances related to plastics, including endocrine disruptors and unregulated additions. Tire wear, textile fibres, and improperly handled plastic trash are examples of land-based sources of MPs that are not covered by the Convention. Due to institutional, budgetary, and technical limitations, many developing nations like Bangladesh find it difficult to execute the agreement, which reduces its efficacy in tackling POPs and how they interact with MPs.

National Legal Frameworks

As a coastal country with abundant aquatic biodiversity and an extensive system of rivers that flow into the Bay of Bengal, Bangladesh confronts escalating challenges from aquatic pollution, particularly from micro-plastics. Although there isn't a dedicated law in Bangladesh that specifically focuses on regulation of micro-plastics, several current legal frameworks indirectly tackle certain elements of aquatic plastic pollution. An examination of the national legal structure shows both advancements and notable deficiencies.

The Bangladesh Environment Conservation Act, 1995 (BECA)

Basically, the Environment Conservation Act is the cornerstone of Bangladesh's environmental laws. This law provides the Department of Environment (DoE) the authority to regulate waste, monitor industrial activities, and reduce pollution. This law deals with the handling of industrial waste, which includes plastic and polymer-based items. Although the law does not expressly address microplastics, it does allow for the regulation of pollutants discharged into aquatic habitats. According to the Act's Section 2(f), "pollution" is defined as the contaminating of air, water, soil, or other natural elements that potentially endanger the ecosystem or public health. This includes plastics, which are ubiquitous pollutants found in

soil, water, and marine environments. Section 6 of the Act forbids any action that could harm the environment. This clause can limit activities that emit plastics, including inappropriate trash disposal, industrial effluents, and plastic litter. The DoE has the authority to regulate and control environmental contamination. Theoretically, this wide mandate may include MPs as a component of overall environmental deterioration (Fracchia, 2005). The Act includes provisions to penalize polluters. The scope can be extended to industries and entities responsible for plastic waste that contributes to microplastic pollution in the aquatic environment (BECA, Section 15).

Weakness of the Act to Control MPs

The Act mostly imposes remedial measures (Siddiqui, 2025). The act fails to adopt precautionary approaches to reduce irreparable damage caused by microplastics in the aquatic ecosystem of Bangladesh. Degradation of the aquatic environment by microplastic occurs, causing irreparable damage that is not possible to restore only by remedial measures. There are no incentives offered by the Act to encourage voluntary adherence to the rules and regulations, which further exacerbates the challenges in managing microplastic pollution effectively. The DoE fails to control microplastic waste hazards in aquatic environments, which exacerbates the degradation of these ecosystems and contributes to the ongoing pollution crisis. The Act is ineffective in controlling MPs' pollution in aquatic environments because of the DoE's lack of institutional accountability (Siddiqui, 2025), which results in insufficient enforcement of regulations and failure to impose adequate penalties for violations. Inadequate fines under the Act lead to entrepreneurs infringing the law. The maximum penalty for noncompliance under the act is now 10 lac BDT. On average, an ETP with a capacity of about 50 m³/hour would cost 13.3 million BDT per year to operate. Even if an enterprise receives two annual fines from the DoE, paying the fine rather than implementing an ETP would still be more cost-effective, as the total cost of the fines would be significantly lower than the annual operating cost of the ETP (Haque, 2017).

The Environment Conservation Rules 2023 (ECR)

The rules establish acceptable boundaries for pollutants discharged into water bodies, particularly those from plastic waste-generating enterprises. This helps stop untreated industrial discharge of plastics into aquatic habitats. The ECR classifies industries into four groups based on the potential environmental impact: green, yellow, orange, and red category industries (ECR 2023). Stricter environmental regulations (i.e., Environmental Impact Assessment Report and Effluent Treatment Plant) apply to "red" industries, such as those that manufacture plastics or packaging materials (ECR, Rule 5).

Weakness of the Rule to Control MPs

Municipal and industrial units must use waste management techniques that lessen the quantity of contaminants, especially plastics, released into the environment (ECR, Rule 5). A significant gap in the ECR's approach to this emerging environmental issue is the lack of any specific provision for monitoring and mitigating micro-plastic contamination in aquatic habitats. Most of the industrial units around Dhaka City have no effluent treatment plan (Kibria et al., 2015). Even though all textile dyeing facilities listed in the 'red category' in Bangladesh are required to install and run ETPs, the current situation demonstrates how

ineffectively the laws are being enforced. Currently, there are 5000 operational textile dyeing facilities nationwide; however, as of March 2019, only 1765 effluent treatment plants had been established in Bangladesh, according to DoE data (Ahsan, 2019 & Amey, 2021). Lack of integrated and effective laws, government actions, enforcement, and DoE's institutional inadequacy and monitoring are the main reasons for not complying with the existing ETP regulations.

EIA is a must before initiating red-category industries in Bangladesh (ECR, Rule 5). Due to a lack of judicial oversight over EIA procedures (Kabir & Momtaz, 2011) and inadequate sector-wise technical and procedural guidance for project proponents and EIA consultants (Lohani et al., 1997), the rules are less effective in controlling MPs in the aquatic environment of Bangladesh, leading to increased pollution and degradation of aquatic ecosystems.

Other Act and Rules in Bangladesh

The Marine Fisheries Act of 2020 established a total marine protected area of 7,367 square kilometres, or around 8.8% of Bangladesh's whole exclusive economic zone, until January 4, 2022. In order to kill, stun, disable, or capture fish or to aid the marine environment, Section 27 forbids the use of explosives, poison, or other toxic substances. Although the act focuses on managing fisheries, it is not integrated with more general environmental and pollution control regulations. The Act disregards land-based sources of microplastics, such as untreated sewage, industrial waste, and urban runoff, which are significant contributors to marine microplastic pollution.

Even though the Act permits monitoring and surveillance, it lacks the enforcement authority necessary to identify and address microplastic pollution in marine environments, particularly beyond the immediate coastal areas. Plastics used in ships are among the hazardous and non-hazardous waste produced during shipbreaking that must be properly managed, according to the Shipbreaking and Recycling Rules, 2011. The Department of Environment (DoE) requires shipbreaking yards to obtain environmental clearance certifications prior to starting operations (Ship Breaking and Recycling Rules 2011, Rule 11). This ensures the assessment and reduction of environmental impacts, including potential leaks of plastic trash. Because regulatory agencies generally lack the necessary resources and capacity, rule enforcement is frequently lax. Micro-plastic pollution may therefore be exacerbated by the inappropriate disposal of plastic trash during shipbreaking operations. While environmental pollution management and the preservation of coastal ecology and biodiversity are not sufficiently addressed, shipbreaking and recycling rules in Bangladesh primarily concentrate on labour rights and occupational health and safety (Jahan & Rahman, 2023).

In 2021, the relevant ministry released Solid Waste Management Rules in accordance with Extended Producer Responsibility (EPR) guidelines found in clause 20 of the Environment Conservation Act of 1995. Although EPR is covered in length in Chapter 9 of the policy, it appears that producers have limited awareness of the regulations or are not using them (Begum, 2024). The rule's Schedule 2 describes how to handle solid trash, whereas Schedule 1 lists dangerous household items. Along with information about landfills

and other relevant topics, the policy also discusses operating rules for solid waste incineration, such as emission norms and radioactivity limits. Included are detailed formats for depositing and processing garbage. These rules become useless as they are not applied correctly (Begum, 2024). Although solid trash is the main emphasis of the regulations, wastewater treatment—a significant entry point for microplastics into marine environments—is not adequately covered. The informal sector, which handles a sizable amount of trash recycling in Bangladesh, lacks adequate infrastructure to successfully reduce MPs in aquatic environments

WAY FORWARD TO REDUCE MICROPLASTIC POLLUTION IN THE AQUATIC ENVIRONMENT OF BANGLADESH

Recommendations under International Perspective

The reduction of MPs is primarily a technical issue that requires the assistance of cutting-edge technology, and the primary cause of MP pollution's growing severity is that it cannot be adequately addressed by current technology. The goal of marine scientific research is to comprehend, manage, and efficiently process marine data in order to use and safeguard the ocean (Montserrat, 2004). Most international conventions investigated in the present study have insufficient legal provisions to avert MPs in aquatic environments. International conventions should be amended, addressing the microplastic pollution in the aquatic environment.

Existing international conventions ought to give preferential considerations to vulnerable developing states such as Bangladesh, including transfer of "know-how," scientific information, scientific data, financial support, qualified personnel, and adequate equipment to combat with micro plastic pollution. In addition to international collaboration, the solutions should be tailored to meet the specific needs of reducing micro plastics in each developing state.

To avoid ship-related maritime pollution, especially plastic trash that degrades to microplastics, UNCLOS 1982 mandates international cooperation. Capacity-building initiatives, information and best practice sharing, and cooperative monitoring and enforcement initiatives could achieve cooperation among nations to effectively reduce maritime pollution and manage plastic waste in the oceans. (Hussain, 2023). Geopolitical tensions can be reduced, and coastal nations can work together to conserve the maritime environment by adhering to the positive faith principle (Ma & Liu, 2023). States that are close to one another can handle regional maritime issues by using their shared legal frameworks. Good-faith cooperation is the practical implementation of the law, and coastal governments' involvement in regional cooperation is a strategy of how they are upholding their duties under international law. For instance, Mediterranean states established a model for cooperation in managing marine pollution by implementing functional national jurisdiction over their waters. As part of their collective cooperation on issues of shared interest, like marine environmental protection, France, Italy, and other Mediterranean states have jointly established specially protected areas on the marine environment and biological resources in the region (Ma & Liu, 2023).

As MPs are transboundary in nature, Bangladesh, Myanmar, India, and Sri Lanka should develop good faith cooperation under UNCLOS. These countries should share actual data and knowledge and enhance surveillance to curb plastic garbage in seawater. As per the legal requirement of UNCLOS, Bangladesh must introduce a garbage management plan for all ships. It is necessary to offer ship operators, port operators, and other stakeholders training and capacity-building initiatives, as well as adequate port reception facilities for ships. For example, the International Maritime Organization (IMO) has produced a number of training materials and guidelines for port facilities and ships about trash management. Several countries have also established monitoring and enforcement mechanisms to prevent pollution in sea water. For instance, the Australian Maritime Safety Authority (AMSA) enforces regulations and sanctions vessels that violate the law (Druel & Gjerde, 2014). Many countries have tightened their regulations to prevent marine pollution from ship-generated rubbish in compliance with UNCLOS 1982. For example, the European Union's Regulation (EC) No. 1013/2006 specifies rules for the movement of garbage, including ship trash, both inside and beyond the EU. In a similar vein, ships are required to have a waste management plan that conforms to Annex V of MARPOL under the Maritime Plastic Pollution Research and Control Act of 1987 in the US (Hussain, 2023).

Bangladesh could reduce microplastic contamination in the marine ecosystem by establishing a comprehensive regulatory framework to regulate ship garbage discharge. Bangladesh should implement certain best practices by setting up sufficient facilities and infrastructure, like trash reception areas at ports, for the removal of waste from ships. Efficient oversight and enforcement systems, such as routine ship inspections to verify adherence to rules and sanctions for noncompliant vessels, and creating public awareness campaigns as to the value of appropriate trash disposal and the harm that marine pollution causes to the environment (Esteves, 2014). MPs in seawater can be effectively controlled by regulating the behaviour of plastic debris entering the marine from the source (Ma & Liu, 2023). Bangladesh must modify its legal and social policy regarding the management of the entire life cycle of plastic items, as plastic debris can separate into MPs after lengthy chemical and physical reactions.

Regional organizations could support initiatives to curb transboundary MPs in the Bay of Bengal and the Sundarbans Delta. For instance, regional organizations like the South Asian Association for Regional Cooperation (SAARC), the India-Bangladesh Joint Working Group on Conserving the Sundarbans, the Joint River Commission, and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) can reduce and manage transboundary discharge and raise public awareness of the need to control plastic pollution (Adyel and Macreadie, 2021). Participating in volunteer-driven cleanliness initiatives with the local population will guarantee long-lasting, meaningful, and successful conservation efforts for the Bay of Bengal and the aquatic environment of the Sundarbans mangrove. To combat plastic pollution and lessen microplastic contamination in the Bay of Bengal and the Sundarban delta's sediments and surface water, recycling plastics and then turning them into energy can also be a sustainable strategy (Kumar et al., 2022).

Recommendations under National Perspective

Precautionary approaches in the BECA 1995 should be enforced to stop the source of microplastics. Since the remedial measure is insufficient to address the irreparable damage caused by microplastics in the aquatic environment, enforcing the precautionary principle under the act could be an effective solution for controlling microplastics. The Ministry of Environment must introduce comprehensive rules on Extended Producer Responsibility to control plastic pollution that breaks down into microplastic pollution. Producers could be held liable even for a product that reaches the end of its lifecycle. A comprehensive EPR rule might ensure the safe disposal, recycling, and efficient reuse of plastic waste.

The weaknesses of the existing EIA rules must be removed to properly control industrial plastic waste disposal in the aquatic environment. Judicial review should be introduced to strengthen the EIA mechanism. Penalties for EIA consultants who provide inaccurate or misleading information in EIA reports ought to be included. The ECR must contain clauses pertaining to public involvement throughout the whole EIA process, as well as monitoring and feedback mechanisms and proponent obligations (Kabir and Momtaz, 2011). Compliance with international environmental protection standards is crucial for the management of the shipbreaking industry in Bangladesh. It is necessary to modify the Ship Breaking and Recycling Rules, 2011, including a stringent procedure for disposing of plastic litters that do not cause microplastic contamination in the aquatic environment of Bangladesh.

Strict legal enforcement and a typical sanctions-based strategy alone won't cut down on industrial discharge of untreated waste water (Amey, 2021), as these measures often fail to address the underlying economic motivations for pollution. The government must provide financial incentives for industries to implement environmentally friendly safeguards, such as installing ETP. The government must provide financial incentives for industries to implement environmentally friendly safeguards, such as installing ETP. By 2015, it was estimated that 150 CETPs (Common Effluent Treatment Plants) had been constructed all over India with subsidies (Sakamoto et al., 2019). Bangladesh ought to use similar strategies to promote the voluntary building of ETPs and the establishment of central effluent treatment facilities in the industries. A properly installed ETP in the industrial sector might lower the amount of plastic waste that is disposed of by industry, which would lessen the microplastic contamination in Bangladesh's inland water bodies. Bangladesh should implement preferential tax treatment, easy bank loans, and duty-free importation of tools and machinery for companies and industries involved in the manufacturing of biodegradable alternatives to plastics and microplastics. Bangladesh should utilize the enormous jute production capacity to produce affordable biodegradable microplastic substitutes and offer incentives to companies that engage in such activities (Hossain et al., 2021). Subsidies to the recycling sector of the plastics industry could reduce microplastic contamination in Bangladesh's aquatic environment, rather than supporting the plastics manufacturing sector.

Concluding Remarks

Controlling the MPs in Bangladesh must be a reasonable choice, not a voluntary one. Poor management practices, unsuitable recycling methods, and insufficient enforcement of laws and regulations in Bangladesh have all contributed to the widespread pollution of

microplastics in the aquatic environment. The present research could provide useful guidelines for policymakers to strengthen legal mechanisms, implement institutional reforms, and initiate administrative initiatives aimed at controlling and mitigating MPs in Bangladesh's aquatic environment. Involvement of all stakeholders, including the government, industrialists, and the local vulnerable community, is a must for promulgating sustainable solutions for MPs in the aquatic environment.

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Assessing the Effectiveness of Climate Adaptation Initiatives for Climate-Induced Migrants: Evidence from Rasalpur Slum in Barishal City Corporation

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ABSTRACT

Climate-induced internal migration is increasingly becoming an adaptive strategy in response to environmental degradation and disasters. This study investigates the impact of climate change policies on the lives of climate-induced migrants residing in Rasulpur Slum under the Barishal City Corporation, Bangladesh. The research primarily aims to assess the level of awareness of climate change policies among these migrants, compare their socioeconomic conditions before and after migration, and examine the support provided by relevant authorities. A mixed-method approach was adopted, involving a quantitative survey of 60 respondents selected through systematic sampling and qualitative data collected via five key informant interviews. The findings reveal limited awareness about climate change policies among migrants and highlight both improvements and deteriorations in their post-migration conditions. While schooling opportunities and savings behavior have improved, challenges persist in housing, access to clean water, and women's employment. The study concludes that despite migration serving as a coping mechanism, policy implementation gaps and inadequate institutional support hinder the long-term wellbeing of climate-affected populations.

JEL Classifications: Z10, Q01, Q54

Keywords: Internal Migration, Climate-induced Migration, Climate Change Policy, Slum-Dweller.

INTRODUCTION

Migration is a significant component for shaping the distribution of population in a country between and within countries (Bell et al., 2015). The information on international migration is more frequent and available than on internal migration (BRAC, 2018; Neelim and Siddiqui, 2015). Nevertheless, the internal migration rate is two-thirds in Bangladesh (Afsar, 2003). The livelihood and economic shapes of the population are influenced largely by internal migration (Farhana et al., 2012; Marshall and Rahman, 2013). There is a positive economic consequence of the internal migration (Alam and Mamun, 2022) including raising

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GDP, and remittances (Marshall and Rahman, 2013). However, migration is a rational decision for individual and collective development (Farhana, Rahman, and Rahman, 2012). One thing is that climate changes are the foremost factors of internal migration (Ullah, 2004).

Climate-induced internal migration refers to the movement of people from one area to another within the same country due to climatic problems or seasonal environmental changes (Gupta, 2020). In Bangladesh, this form of migration has become increasingly important because the country is highly disaster-prone and vulnerable to climate-related hazards. For many affected people, migration is a strategy to reduce risk and protect their lives and livelihoods (Kartiki, 2011).

After leaving their places of origin, many climate-induced migrants settle in urban slum areas. However, life in these settlements is often difficult, as migrants face problems related to housing, sanitation, water supply, and other public services (Ahsan et al., 2014). Although many migrants move in search of better economic opportunities, these expectations are not always fulfilled.

Some studies show that migrants relocate to urban areas for improved livelihood opportunities and income generation (Gazi et al., 2017). Yet, their economic condition often remains unstable. During the COVID-19 pandemic, many internal migrants lost their jobs or sources of income and were forced to return to their native areas (Rahman, 2022). This suggests that not only natural disasters, but also health and economic crises, can influence patterns of migration and return migration.

Khulna and Barishal are both coastal and disaster-prone regions of Bangladesh, where climate-related migration is common. Many people move into and out of these areas due to environmental stress and livelihood insecurity (Household Survey in Bangladesh, 2020). At the national level, Dhaka continues to receive a large number of disaster-affected migrants. It has been reported that around 2,000 people enter Dhaka city following disaster impacts, contributing to the growing pressure of climate-induced displacement in urban areas (Sun, 2022). That's why it is called that climate migration is one kind of tackle-of adaptation to climate change (Naser et al, 2019).

This study was conducted on the climatic migrants in Rasulpur slum of Barishal City Corporation and tried to compare climate migrants' perception on policy-induced impact on socio-economic status before and after migration. Readers interested in this selected topic will benefit from this study and be guided by the expected research outcomes for further study.

BACKGROUND OF THE STUDY

People in developing countries respond to climate change through internal migration (Waldinger, 2015). Due to the environmental and Climatic problem, people failed to cope up with their existing livelihood and thus they have to face forced displacement in the slum area of the city from their own land (World Bank, 2016) and in this way slum area is created and this migration is called environmental migration.

After migration, poor people often settle in slum or trespasser areas. In Barishal Division, the total slum population was 49,401, and it was reported that all were environmental migrants. The total number of migrants was 4,593 in the early era of the 21st century (BBS, 2011).

There are several common hazards in the coastal areas of Bangladesh, such as drought, sea level rise, tidal inundation, riverbank erosion, flood, cyclone, storm surges, earthquake, and fire (Ahsan, 2019). Among these hazards, climate change is considered one of the major drivers of internal migration in coastal regions (Khan, 2022). Barishal is one of the coastal areas of Bangladesh and is therefore highly exposed to these climate-related hazards.

A few climate change-related policies are available in Bangladesh (Martin et al., 2013), but the impacts of their implementation are still not clearly visible. After migration, climate-induced migrants experience both positive and negative changes in their lives.

On the positive side, some studies show that migrants have been able to increase their income after migration (Hossain, Afsar and Bose, 1999; Gazi et al., 2017). They have also been able to save money and earn cash income more regularly (Gazi et al., 2017). In some cases, migrants have improved their livelihoods in the city compared to their previous conditions in their place of origin (Farhana et al., 2012). They have also been able to improve their status and wellbeing through social capital after migration (Rahman and Rana, 2016).

Similarly, people living in the Korean Development Corporation (KDC) slum in Barishal, Bangladesh, realized that migration could be a useful solution for improving their income level and livelihood conditions (Islam et al., 2021). In addition, women have been able to contribute to family income by joining the informal sector after migration (Farhana et al., 2012). However, these positive changes are not always long-lasting (Gazi et al., 2017).

On the negative side, climate-induced migrants often face serious socioeconomic difficulties after migration. Their income and savings may decline, which forces them to reduce household expenditure and health-related costs (Roy and Basu, 2019). They also have limited access to health and education facilities after moving from their original areas to urban slum settlements (Rana and Ilina, 2021).

Slum dwellers (climatic migrants) are the sufferer of the inadequate environmental services such as housing, safe water, sanitation facilities, etc. (Rana and Pirachan, 2020). Basically, they migrated to recover their economic status fighting poverty and so this type of fighting is a strategy to decline poverty but there is no conformity this strategy will be ensured (Kothari, 2002). Based on the above information, migration is an adaptation strategy among climate-victim migrants. Because they migrated from their land due to adverse environmental problems, it is noted that after migration, they face enormous crises.

LITERATURE REVIEW OF THE STUDY

Climate Migration

Migration happens due to natural disasters such as tsunami, floods, droughts, earthquakes etc. is called environmental migration (Gupta, 2020) or climatic migration. These migrants are called climatic migrants or climatic refugees (Bettini, 2014). They are migrated only for push factors and even they have limited choice in terms of migration (Ahsan et al., 2014). Sometimes people of the disaster-prone area moved their place for livelihood stress and economic crisis not environmental factors (Paul, 2005; Rahman et al., 2015). However, climate migration is one kind of mechanism of adaptation to climate change (Naser et al., 2019). In Bangladesh context 2,000 people are moving to Dhaka every day and it is beset by over 10 million climate refugees according to the Mayors Migration Council (Sun, 2022). Besides, about 97105 in Barishal division and about 16000 people in Khulna division were forced by different extreme climatic events to migrate from their own house and land to another nearby area (Household Survey in Bangladesh, 2020).

Socioeconomic Status of the Migrant Population

Reviewing the articles, it is seen that poor people leave their own area due to climatic problems and many other reasons and move to other slum areas in the hope of a better life. In reality, there are both positives and negatives impact of migration in their socio-economic lifestyle of displaced population. For economic purpose, migration was a positive indicator for displaced population because it helped to increase their income level (Hossain, Afsar and Bose, 1999). Also, they were able to save money and to earn cash money (Gazi et al., 2017). Both men and women benefited joining in the informal economic activities like restaurant workers, maid servants, and daily laborer's (Farhana et al., 2012). These works were the indicators to remove unemployment rate because they had no had no work or did not work before migration; better job searching was the main purpose behind their migration (Islam and Baten, 2016). We know that poverty is a barrier and a serious enemy of the developing country. Due to extreme level poverty, poor people take decision to migrate urban area for better income and better lifestyle. So, Migration can be a strategy to get out poverty (Kothari, 2002). Note that, slum dwellers in the Barishal city take loan from different NGOs with high interest which creates extra burden for them. As a result, they are migrated in urban areas mitigating their burden and extra tension (Islam et al., 2021). On the other hand, displaced population especially climate-induced migrants because their income and saving are still low that's forced to decrease the expenditure cost and health cost is raised (Roy and Basu, 2019). For the educational purpose, displacement can be removed there is a wide gap between them urban and rural areas in terms of both quality of education and type of the educational facilities (Haidar and Kabir, 2010). Moreover, good social networks, securing productive assets, reducing dependency ratios and choosing appropriate destinations are the successful factors for their wellbeing after migration from their own land (Rahman and Rana, 2016). In the negative sense, rural to urban migration creates a lot of housing problems which results are the low space of living. Many people are confined to one room with more members, and they faced toilets facilities and cooking facilities. Even their children are not open space to play (Gazi et al., 2017). Also migrated people have limited

accesses to health and education facilities in the slum area of Dhaka city (Rana and Ilina, 2021). Water Supply is very erratic and inadequate there (Khan, Hossain and Kraemer 2014) that means urban slum dwellers who are migrated from other are deprived of satisfactory environmental services such as housing, safe water, sanitation facilities, etc. (Rana and Pirachan, 2020). Generally rural people are forced to migrate in the urban area that is for saving deficit, economic activities. But in the time of Covid-19, garments workers were forced to return their homeland due to the shutdown of their working place (Rahman, 2022). In the Rajshahi city, although poor migrants have contributed significantly to economic growth and earned higher wages in high productive areas, they are still socially and economically deprived of the greater benefits of economic growth, such as food and education, housing, sanitation and independence (Farhana et al., 2012). In terms of physical and mental health, rural to urban migrants in living in slums are vulnerable highly due to lack of adequate housing and health knowledge and more smoking (Khan and Kraemer, 2014). Besides they involved in the informal economy. Because of their involvement in the informal sector, they always face high levels of risk and harassment this also hampers their physical and mental fitness (Hossain and Khan, 2012). Worth mentioning, climate migrants suffered from a lack of adequate water, insufficient drainage system, lack of toilets, tube well and bathing facilities, inadequate hygiene management, lack of basic skills required for urban, lack of jobs, low wages and income (Khan, 2022). Even a lack of skills for tertiary professions they are unable to obtain a decent profession. The female members have a large percentage of illiteracy, so they remain at home excessively (Tanni et al., 2014).

From the discussion above, it is clear that the socioeconomic situation of the population before internal migration has altered somewhat because of climatic issues or for any other reason. In the review of the research mentioned above paper, this change which assures them of a happier and healthier life, was also not noted. However, several studies specifically point out that the former means of subsistence of immigrants were not always inferior to those used today. Nevertheless, their advantages following their relocation did not promote a healthy way of life.

CONCEPTUAL FRAMEWORK OF THE STUDY

Climatic migration is one kind of coping mechanism with the devastating effects of natural disasters (Bettini, 2014). The conceptual framework of this study in the **Figure 1** was developed to ensure consistency in the measurement of socioeconomic status before and after migration. In the earlier version, the indicators of socioeconomic status appeared different across the two phases, which created difficulty in making a valid comparison. To address this limitation, the present framework uses the same set of socioeconomic indicators for both the pre-migration and post-migration periods. These indicators include schooling status, access to drinking water, access to household water, housing condition, women's work participation, income, savings, and loan status. Using identical indicators at both time points allows a more systematic comparison of the migrants' socioeconomic conditions.

The framework assumes that climate-related hazards such as flood, cyclone, riverbank erosion, salinity intrusion, and tidal inundation act as the major driving forces behind climate-induced migration. Once migration occurs, the study examines how

migrants' socioeconomic conditions change from their place of origin to their place of destination. In this sense, climate-induced migration is treated as the central process through which climate vulnerability influences socioeconomic life.

To make the comparison methodologically sound, information on both before-migration and after-migration conditions was collected from the same respondents through retrospective self-reporting. Each respondent was asked to describe his or her condition before migration and the present condition after migration using the same variables. The responses were then categorized and compared through percentage distribution and descriptive analysis. Thus, the comparison is not based on two different groups, but on the same migrant households across two different time points.

The framework also incorporates policy awareness and institutional support as two important explanatory dimensions. Policy awareness refers to the respondents' knowledge or understanding of climate change-related policies, adaptation initiatives, or support programs available for climate-affected populations. Institutional support refers to the assistance received from government agencies, NGOs, city corporations, or other relevant bodies. These two variables are included because awareness and support may influence the extent to which migrants can adapt successfully after relocation.

In this study, climate change initiatives are connected to socioeconomic variables through their potential role in shaping post-migration outcomes. For example, when migrants are aware of support mechanisms and are able to access institutional assistance, they may experience better opportunities in housing, water access, livelihood support, schooling, or financial stability. On the other hand, lack of awareness or weak institutional support may worsen vulnerability and limit the adaptive benefits of migration. Therefore, the framework does not treat socioeconomic change as an isolated outcome; rather, it is understood as being influenced by both migration itself and the level of policy-related support available to migrants. Overall, the conceptual framework provides a clearer analytical structure by linking climate-related hazards, climate-induced migration, policy awareness, institutional support, and socioeconomic comparison before and after migration. This structure strengthens the internal logic of the study and improves the interpretation of the research findings.

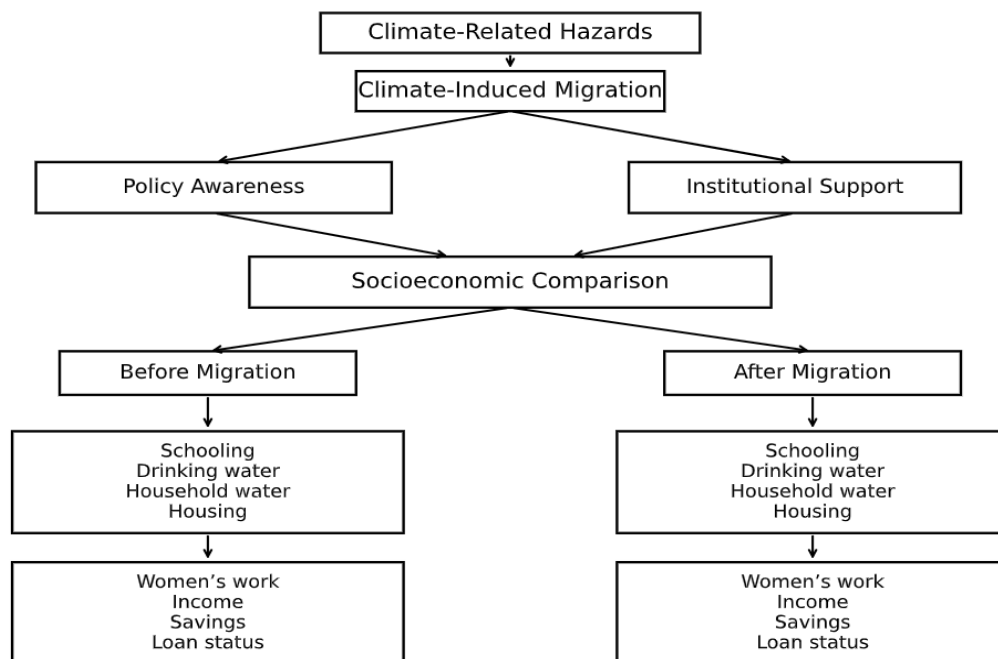


Figure 1 Conceptual Framework; Source: Authors

SIGNIFICANCE OF THE STUDY

This study is significant socially because it contributes to the growing body of knowledge on climate-induced internal migration by linking environmental hazards, migration, policy awareness, institutional support, and changes in socioeconomic conditions within a single analytical framework. Theoretically, it helps clarify how migration operates not only as a survival response to climate stress but also as a complex adaptation process shaped by access to services, livelihood opportunities, and support systems. Socially, the study is important because it focuses on the lived realities of climate-induced migrants in an urban slum setting, where vulnerabilities related to housing, water, income, women's work, and financial insecurity remain highly visible. By examining these issues in Rasulpur Slum of Barishal City Corporation, the study provides evidence that can help policymakers, local authorities, NGOs, and development practitioners design more effective, inclusive, and context-sensitive interventions for climate-affected populations.

METHODOLOGY OF THE STUDY

The core of the entire research effort is the methodology (Yasmin and Hossain, 2021). This study used a mixed method. The Rasulpur slum is located in Barishal's Ward No. 9 (9) of the city corporation. The largest proportion of migrants in our survey is one thing. Rasulpur has a total population of 6000 people, according to Barishal City Corporation (Population Census in Bangladesh, 2010). Here, 60 populations out of 6000 are chosen following systematic sampling process. It indicates that a sample of one out of every hundred people is used. So, the exact sample size of the study is 60.

A key component of study technique, design, sample size, population, location, and topic validation are justification. One type of research design for the study is the mixed method (Neuman, 2016). Rasulpur was chosen as the study location because it is a slum region with a high migrant population. The populations in this region are primarily displaced (BBS, 2011).

However, among the chosen sample, males and females were chosen using a purposive sampling technique. They are the subject of a survey using a semi-structured questionnaire. The primary data that were directly acquired from the chosen study location are what this research is mostly based on. For a better representation, some additional secondary data are employed to accentuate the study's main points. This information on Bangladesh's climate-vulnerable regions, migration, and overall migration has been compiled from journals, books, research publications, and other materials. The collection of data taken place between November 28 and December 11, 2023. Using SPSS software and an Excel sheet tools for quantitative data, these have been displayed in tables, graphs, charts, diagrams, and other ways through percentage distribution. The first part assigned the demographic factors of the respondents, such as (gender, age, and educational qualification of the respondents). Then, the other parts are linked to the objective of this study.

Justification of the Methodology

The methodology of this study was designed to suit its descriptive and comparative research objectives. A systematic sampling method was followed in the quantitative phase because the target population in Rasulpur Slum was relatively concentrated, and selecting respondents at a fixed interval provided a practical and organized way to ensure wider coverage of the study area while reducing selection bias within existing time and resource limitations. Simple percentage analysis was considered sufficient because the main aim of the study was to describe and compare the socioeconomic conditions of climate-induced migrants before and after migration across selected indicators such as schooling, water access, housing, women's work, income, savings, and loan status, rather than to establish causal relationships or predictive models. In addition, a qualitative component was included through Key Informant Interviews (KIIs) using a semi-structured interview guide, as this method allowed the researcher to gather deeper contextual insights and institutional perspectives that could not be captured through survey responses alone. The qualitative data were analyzed to identify key patterns related to policy awareness, institutional support, and post-migration challenges, thereby complementing the quantitative findings and strengthening the overall interpretation of the study.

DATA ANALYSIS AND FINDINGS OF THE STUDY

Demographic Status of the Respondents

In this study, climate-induced migrants are considered the respondents of the survey method. At the very first of the study, the respondents are asked about demographic variables consisting of age, gender, religion, occupational, and educational status presented below Table 1.

TABLE 1. DEMOGRAPHIC STATUS OF THE RESPONDENTS

Demographic Criteria		Frequency (f)	Percentage
Age	20-30	23	38.3
	30-40	13	21.7
	40-50	7	11.7
	50-60	7	11.7
	60-70	7	11.7
	Below 20	3	5.0
	Total (n)	60	100.0
Gender	Male	24	40.0
	Female	36	60.0
	Total (n)	100	100.0
Religion	Islam	56	93.3
	Hindu	4	6.7
	Total (n)	100	100.0
Occupation	Farmer	2	3.3
	Fisherman	8	13.3
	Small Business	10	16.7
	Hawker	1	1.7
	Tailor	4	6.7
	Housewife	21	35.0
	Housemaid	7	11.7
	Midwife	1	1.7
	Student	2	3.3
	Day Labour	3	5.0
	Govt. Employee	1	1.7
	Total (n)	100	100.0
Education	Illiterate	26	43.3

	Primary Passed	21	35.0
	Under SSC	7	11.7
	SSC Passed	6	10.0
	Total (n)	100	100.0

Source: Field Work, 2022

From Table 1 it is seen that the total sample size (n) of the study is 60. Among them, 38.3% of respondents are between 23 and 20 years of age. 21.7% of respondents are between 30 and 40, 11.7% are between 40 and 50, 50 and 60, 60 and 70 years of age. Only 5.0% are the below 20 years of age. From this statement the participation of respondents aged 20-30 years is higher in the study. According to gender, 40.0% of respondents are male that's the frequency (f) is 24 and 60.0% are female that's frequency (f) is 36. Female respondents are more than male. For religion, the percentages of Muslims and Hindus are 93.3% and 6.7% among the respondents. The percentage of Muslims is recorded as higher than Hindus. In the study are, there are different types of work status for earning livelihood. For occupation 3.3% are farmers, 13.3% are fishermen, 16.7% are small businessmen, 1.7% are hawkers, 6.7% are tailors, 35% are housewives, 11.7% are housemaids, 1.7% are midwives, 3.3% are students, 5% are day labors and only 1.7% are Govt. employee. Lastly, this table showed the educational status of the respondents. A large part is illiterate among them whose percentage is 43.3%. Besides, 35% have primary level education, 11.7% educational qualifications are under SSC. Only 10% are SSC passed.

Comparison of the Social Status before and after Climate-Induced Migration

This section indicated the comparison of the social status before and after climate-induced migration. Here social status means educational status, access to water, housing status, and religious status.

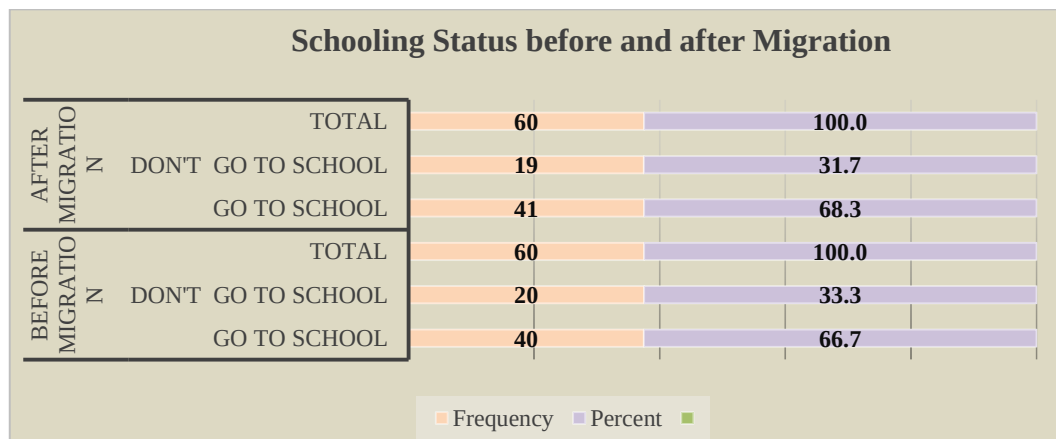


FIGURE 2. SCHOOLING STATUS BEFORE AND AFTER CLIMATE-INDUCED MIGRATION

Figure 2 views that 66.7% of respondents said that their children got the opportunity to go to school before migration while 68.3% of respondents argued that their children get the opportunity to go to school in the present livelihood system. Similarly, 33.3% of respondents claimed that their children did not have the opportunity to go to school before migration while 31.7% of respondents also claimed that their children don't have the opportunity to go to school in the present livelihood system. Schooling status is comparatively better in the present livelihood system than before migration.

Qualitative Insight (KII): A local schoolteacher interviewed noted that while access to education increased post-migration due to the presence of government primary schools nearby, *“many children drop out early to help parents earn or care for younger siblings.”* This indicates that while access improved, sustained attendance remains a challenge.

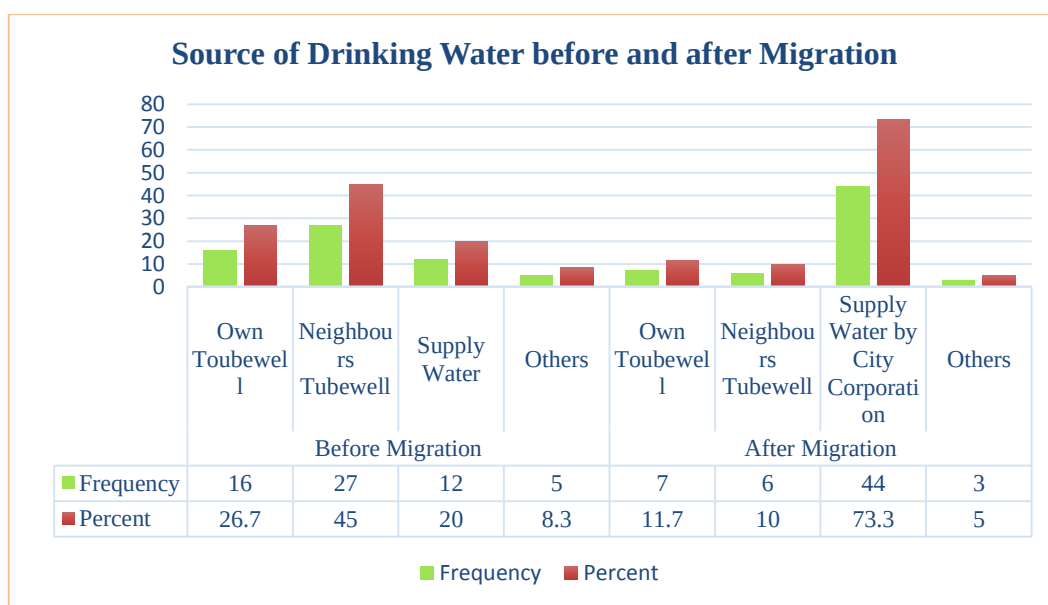


FIGURE 3. SOURCES OF DRINKING WATER BEFORE AND AFTER CLIMATE-INDUCED MIGRATION

From **Figure 3** it is seen that before migration 26.7% population collected drinking water from their own tube well, 45% from a neighbor's tube well, 20% from supply water, and only 8.3% from other sources. After migration a large part of the population which means 73.3% collect drinking water from supply water by the city corporation, 11.7% from their own tube well, 10% from a neighbor's tube well, and only 5.3% from other sources. Here, it is shown that most of the people depend on the supply of water by city corporations in the present society and neighbor's tube well in the past livelihood system.

Qualitative Insight (KII): A community leader stated, *“Though the city supplies water, it is irregular and often unclean. People still walk long distances to fetch water from alternative sources when supply fails.”* This highlights the quality and reliability issues not visible in quantitative data.

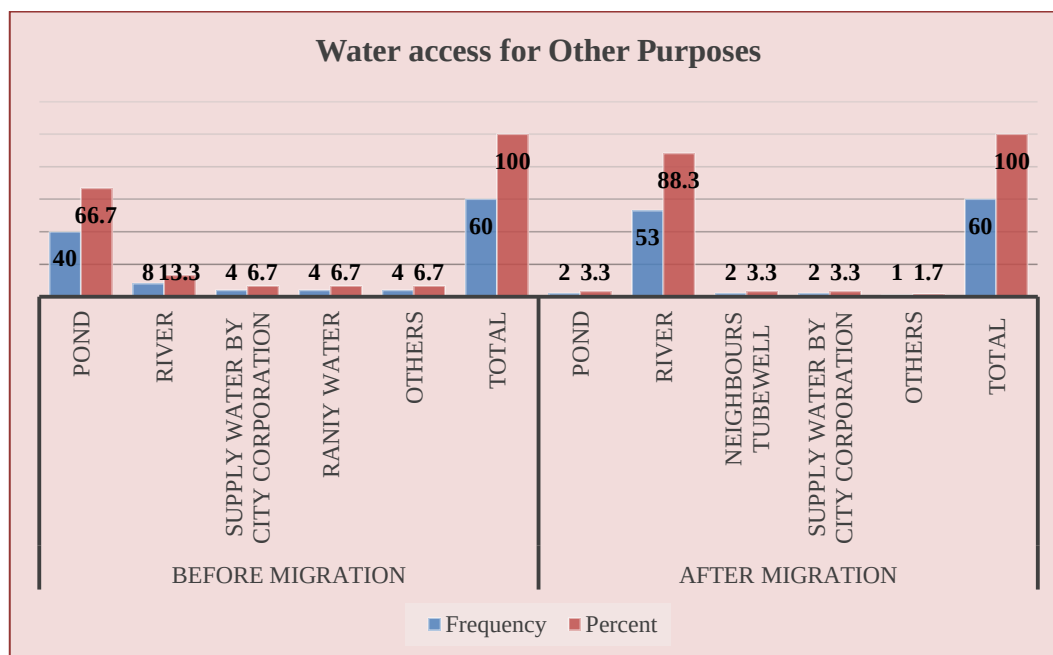


FIGURE 4. WATER ACCESS STATUS BEFORE AND AFTER CLIMATE-INDUCED MIGRATION

Figure 4 shows illustrates the sources of water used by respondents before and after climate-induced migration. Prior to migration, the majority (66.7%) used **pond water**, with small portions relying on river water (8.3%), supply water, rainwater, or others (each 6.7%). After migration, **use of river water rose sharply to 88.3%**, while pond usage dropped to just 3.3%. Access to city corporation supply water remained very limited (1.7%), indicating a **decline in safe and accessible water sources for non-drinking purposes**, which contributes to increased vulnerability to waterborne and skin diseases, as highlighted in KII findings.

Qualitative Insight (KII): Key Informant Interviews (KIIs) revealed that water access for daily household tasks (such as washing clothes, bathing, and cleaning) became significantly more difficult and unsafe after migration. A female respondent shared, *“Before, we used pond water, which was cleaner and more familiar. Now we are forced to use river water that smells bad and causes skin rashes.”* Another community leader explained that many slum dwellers lack proper drainage and storage facilities, which worsens hygiene conditions. Although city-supplied water is technically available, it is prioritized for drinking and often insufficient for other purposes. A local health worker warned, *“Skin diseases are now common among children and women because of frequent use of polluted river water.”* These qualitative insights highlight the **health risks and infrastructural gaps** faced by migrants, which are not fully captured in the quantitative data alone.

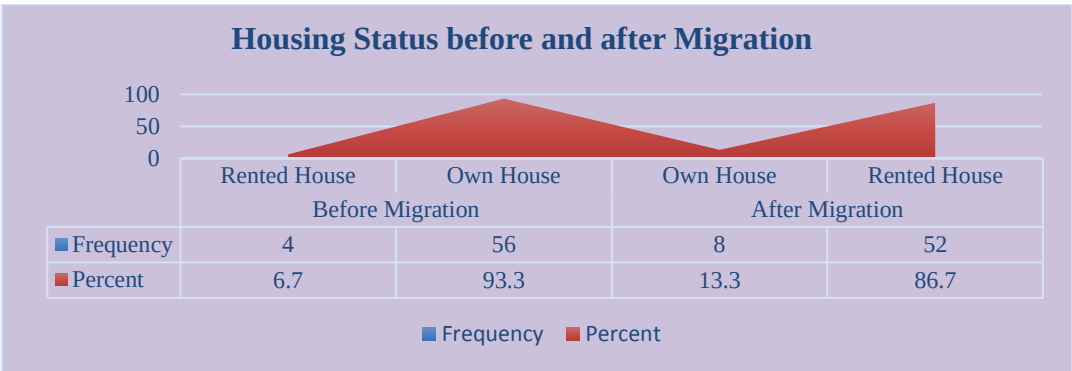


FIGURE 5. HOUSING STATUS BEFORE AND AFTER CLIMATE-INDUCED MIGRATION

Figure 5 showed that before migration most of the population that’s percentage is 93.3% lived in their own house and only 6.7% lived in the rented house. Facing climatic problem only 13.3% able to build own house for living and large portion (86.7%) of them are not able to build their own houses after migration. They lived in rented house.

Qualitative Insight (KII): An elder slum resident explained, “*We had land and homes of our own, even if they were modest. Here we live in tin-roof shacks with high rent and no legal protection.*” The emotional and psychological impact of this shift is significant but hidden in numbers.

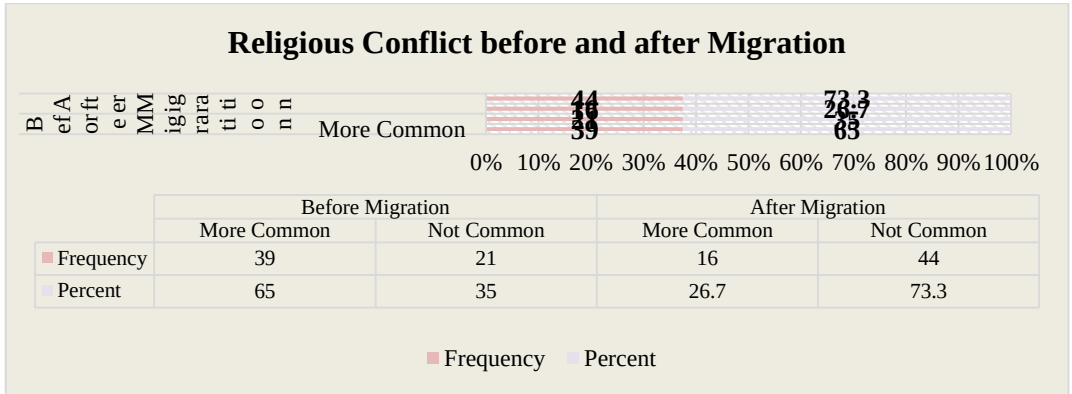


FIGURE 6. RELIGIOUS STATUS BEFORE AND AFTER CLIMATE-INDUCED MIGRATION

Figure 6 indicates the scenario of the religious conflict and problems before and after migration. Comparatively, the religious problems were more extreme in the previous lifestyle of the respondents which percentage is 65% than in the present lifestyle of the respondents which percentage is 26.7%.

Qualitative Insight (KII): A female religious leader noted, “*In slums, we live closely with people of other religions. We’ve learned to tolerate more, but it doesn’t mean deep harmony. Tension still rises during festivals.*”

Comparison of the Economic Status before and after Climate-Induced Migration

This section indicated the comparison of the economic status before and after climate-induced migration. Here economic status means the work status, income status, saving status, and loan status.

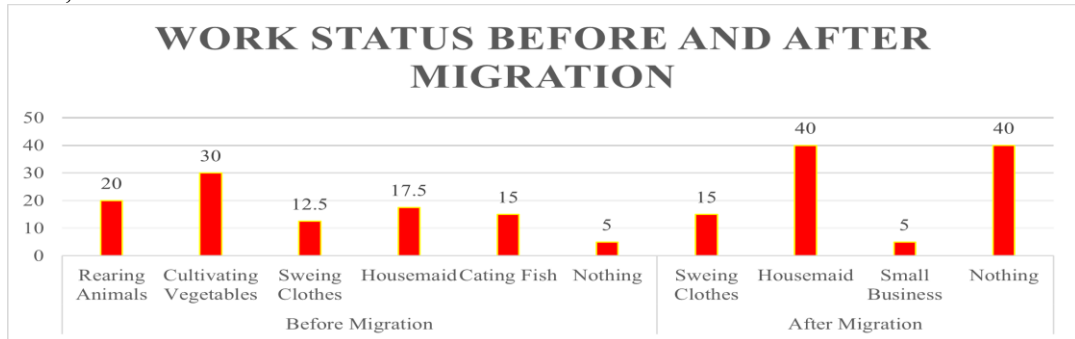


FIGURE 7. WOMEN'S WORK STATUS BEFORE AND AFTER CLIMATE-INDUCED MIGRATION

From the **Figure 7** it is depicts that most of the women spent leisure time after migration. Normally, they engaged themselves with many earning activities before migration. 20% women reared animals, 30% cultivated vegetables, 12.5% sewed clothes, 17.5% worked other's home, 15% caught fish for family support and only 5% did not any economic work for family before migration. On the other hand, only 15% sew clothes and 5% do small business after migration. Surprisingly, 40% do not any economic work where another 40% do people's household chores that are rich.

Qualitative Insight (KII): One female respondent stated, *"I used to raise poultry and sell eggs. Here, I don't even have space to keep a hen."* Another said, *"Working in other people's houses brings money, but also humiliation. We had dignity in our village."*

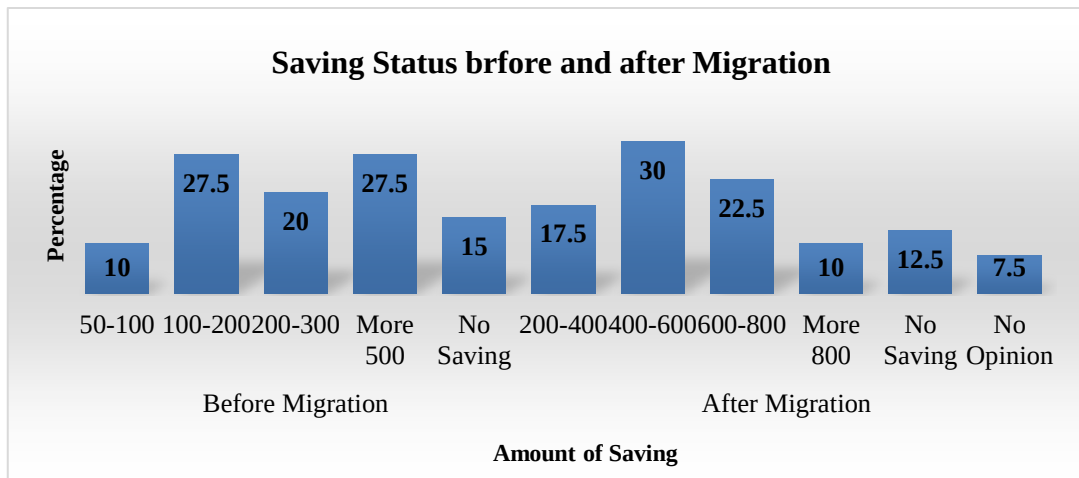


FIGURE 8. SAVING STATUS BEFORE AND AFTER CLIMATE-INDUCED MIGRATION

The **Figure 8** indicates the saving status of the respondents before and after migration. Before migration, 27.5% of respondents monthly saved about 200-300tk as well as more than 500tk. Then 20% respondents saved 200-300tk. Only 10% saved 50-100tk and 17.5% did not save money for future. On the other hand, 30% respondents save 400-600tk, 22.5% respondents save 600-800tk, 17.5% save 200-400tk and only 10% save more than 800tk. Mentioned that 12.5% do not save for future and 7.5 have no opinion on the saving for future.

Qualitative Insight (KII): A microcredit officer noted, “Many women join savings groups, but loans taken under pressure often deepen debt. It's more survival than savings.”

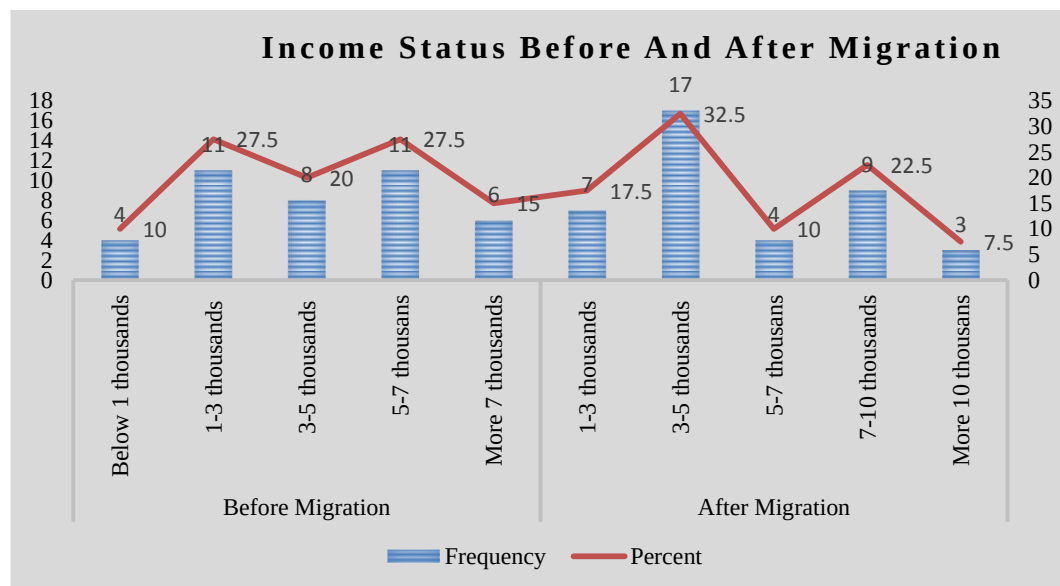


FIGURE 9. INCOME STATUS BEFORE AND AFTER CLIMATE-INDUCED MIGRATION

Figure 9 indicates the comparison of the income of the selected people before and after climate-induced migration. A large part including 27.5% of respondent's monthly income was one to three and five to seven thousand. 20% of income was three to five thousand and 15% of income was more than seven thousand. Only, 10% of income was below one thousand before migration. In contrast, a large part including 32.5% of respondents' monthly income is three to five thousand TK per month. The second largest part is 22.5% whose income is seven to ten thousand and the third largest part is 17.5% whose income is one to three thousand, fourth largest part is 10% whose income is five to seven thousand after migration. Only 7.5% of people's income is more than ten thousand.

Qualitative Insight (KII): A shopkeeper said, “Earning in the city is higher, but so is the cost of living. After rent and food, there's little left. Sometimes it feels like we were better off before.”

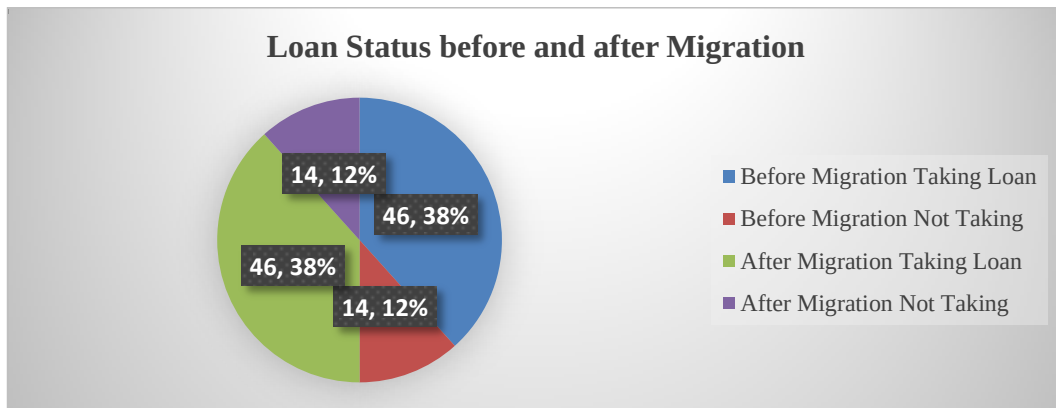


FIGURE 10. LOAN STATUS BEFORE AND AFTER CLIMATE-INDUCED MIGRATION

From **Figure 10**, it is shown that 38% population took a loan for the development of the family whose frequency is 46 out of 60, and 12% did not take a loan from NGO, gram somite, etc. for the development of the family before migration whose frequency is 14 before migration. After migration, the same proportion of people take loan for the development of the family and the same proportion of people don't take loans for the development of the family.

Qualitative Insight (KII): A local NGO officer mentioned, “*Most families here are in cycles of debt. They borrow to pay rent or medical bills, not for investment. It's a survival mechanism, not financial growth.*”

The analysis reveals that while some socioeconomic indicators such as children's schooling, savings behavior, and religious tolerance have improved after migration, others have deteriorated. Key areas of concern include reduced access to clean water for daily use, lack of housing ownership, decline in women's economic participation, and increased reliance on high-interest loans. Qualitative data from KIIs supplement these findings, providing deeper insights into the emotional, health, and infrastructural challenges faced by migrants. The mixed-method approach highlights that despite the coping mechanism of migration, significant gaps in institutional support persist, especially in urban slum settings.

DISCUSSION OF THE STUDY

Climate-induced migration has become a critical adaptation mechanism in disaster-prone regions, reshaping the socioeconomic structure of affected populations (Naser et al., 2019). It functions as a necessary but complex policy response to mitigate environmental challenges (Todaro and Smith, 2015). Since Bangladesh's independence in 1971, climate issues have been a major driver of internal migration (BBS, 2015). Although various climate change policies exist (Martin et al., 2013), their implementation remains uneven, especially in urban slums.

Findings from this study confirm that climate-induced migrants from disaster-prone rural areas to urban slums, like Rasulpur, experience both gains and losses in their socioeconomic lives. Educationally, a slight improvement was observed in children's school attendance post-migration, echoing Haidar and Kabir (2010). However, access to basic services, especially drinking water, remained inadequate. Before migration, people relied on neighbors' tube wells due to low income and landlessness (Hossain, Afsar and Bose, 1999), but after migration, although access to supply water increased, issues of quality and irregularity persisted (Hossain and Khan, 2012; Khan and Kraemer, 2014).

Use of river water for daily household purposes also increased after migration, replacing previously used pond water. This shift has led to health concerns like skin infections—problems not faced before when pond water was used. These findings align with Khan (2022), who documented slum dwellers' struggle with inadequate sanitation and hygiene infrastructure.

Housing was another critical concern. Migrants who once owned land and homes now mostly reside in rented, often substandard housing, lacking access to basic services (Rana and Pirachan, 2020). Nevertheless, the post-migration environment did foster increased religious tolerance and inter-group adaptation, which contributed positively to social cohesion (Rahman and Rana, 2016).

Economically, migration resulted in both positive and negative outcomes. Many migrants left rural areas due to environmental challenges (Gupta, 2020) and hoped for better opportunities in urban areas. While men found some work in the informal economy (Farhana et al., 2012), the study found that women's employment dropped significantly post-migration. Before migrating, women engaged in productive activities like animal rearing and home-based work. After migration, a large portion became economically inactive or dependent on domestic help in wealthier households, which often offered less dignity and income.

Savings capacity improved slightly for some respondents, which reflects the pattern identified by Gazi et al. (2017). However, overall income remained low, consistent with earlier studies highlighting urban wage gaps and underemployment (Khan, 2022). High living costs and limited skills further aggravated the situation. Migrants continued to rely on high-interest loans both before and after migration, often worsening their financial vulnerability (Yahaya, 2021). As seen in prior literature (Islam et al., 2021), some families opted for secondary migrations to seek improved living conditions elsewhere. Thus, while internal migration offers partial economic relief and a chance at better infrastructure, it also introduces new dimensions of poverty, insecurity, and inequality.

CONCLUSION

This study concludes that the socioeconomic status of climate-induced migrants presents a mixed picture. There are noticeable improvements in some areas such as children's schooling, religious harmony, and saving ability after migration (Haidar and Kabir, 2010; Gazi et al., 2017; Rahman and Rana, 2016). However, there are clear setbacks in critical areas such as access to clean drinking water, water for household use, housing stability, sanitation, and women's work opportunities (Khan, 2022; Rana and Pirachan, 2020). In terms of income and loan dependency, the situation remains relatively unchanged, as

financial insecurity and reliance on high-interest loans persist (Yahaya, 2021). Although some aspects of life have marginally improved, the overall transition reflects both adaptive resilience and emerging vulnerabilities. Respondents acknowledged receiving occasional support from Barishal City Corporation (BCC), particularly during the COVID-19 period such as vaccination campaigns and public health announcements. However, trust in NGOs and social organizations remained low due to perceived mismanagement and unmet promises.

Therefore, climate-induced migration can be considered an adaptive strategy, but not a fully successful one, as it brings both opportunities and new challenges. To enhance the wellbeing of migrant communities, better implementation of existing policies, infrastructural investments, and gender-sensitive urban planning are essential (Alam and Mamun, 2022).

RECOMMENDATION

Based on the findings of this study, several areas have been identified that require further attention from policymakers, researchers, and development agencies:

- **Enhancing Policy Awareness:** Since awareness of climate change policies among migrants is limited, targeted campaigns and accessible communication channels should be developed to inform affected populations.
- **Improving Urban Infrastructure:** The lack of safe water and housing remains a critical issue. Local government and city corporations should prioritize infrastructural improvements in slum areas, particularly for non-drinking water access and sanitation.
- **Women's Livelihood Support:** Tailored programs are needed to enable climate-affected women to re-engage in income-generating activities post-migration, especially those who have lost access to land-based livelihoods.
- **Loan and Financial Inclusion:** As migrants often rely on high-interest loans for survival rather than investment, microfinance models must be redesigned with flexibility and financial literacy training.
- **Further Research:** Future studies should explore long-term adaptation strategies of climate migrants and assess the effectiveness of governmental and non-governmental support systems. It would also be valuable to conduct longitudinal research on post-migration well-being, resilience, and access to basic services.

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Sushil Samaj: The Civil Society and Its Controversy in Contemporary Bangladesh

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ABSTRACT

The concept of civil society in Bangladesh remains conceptually ambiguous due to its multifaceted nature, contested meanings, and diverse interpretations in contemporary social and political discourse. In Bangladesh, civil society is commonly translated as sushil samaj, nagorik samaj, and other related terms, each carrying distinct linguistic and ideological connotations. The political contestation surrounding these translations further complicates the understanding of the concept and often obscures its theoretical significance and practical manifestations in everyday life. This study analyses a wide range of secondary sources, including NGO reports, media accounts, academic literature, constitutional documents, and critical scholarly commentaries, to explore the concept of civil society. Employing a qualitative and interpretive research approach, this study investigates four key dimensions: the contested translation of Sushil Samaj, the conceptual debates surrounding civil society, institutional roles, and media-driven popular perceptions in contemporary Bangladesh. The analysis highlights the ambiguities surrounding the institutional functions of civil society, the contradictions inherent in NGO activities, and the continuing theoretical tensions between liberal-democratic and Marxist perspectives. The findings demonstrate that although civil society is widely regarded as an important force for promoting democracy, human rights, and public accountability, its effectiveness is constrained by elite dominance, political co-optation, donor dependence, and institutional corruption. This article argues that the limited accountability of civil society in Bangladesh results from both internal organizational weaknesses and external political and structural pressures. It concludes that strengthening civil society requires greater institutional autonomy, inclusiveness, democratic accountability, and independence from both state and donor influence.

Keywords: Civil Society; Sushil Samaj; Democracy and Governance; NGOs and Institutional Role

INTRODUCTION

The English word 'civil society' generally corresponds to the Bengali term 'sushil samaj'. Many people use 'civil society' to refer to nagorik samaj, jano samaj, loko samaj, besamorik

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samaj, and similar terms. Some also mix English and Bengali, using the term 'civil samaj'. In contrast to military rule and military work, civil society was established primarily to assert the authority of unarmed citizens within the state and society at large (Chandhoke, 1995; Cohen & Arato, 1997). The term "civil society" can have different connotations in different countries. There is no universal definition of civil society. However, there is a consensus that it is an optional association free of regulation. A well-governed public association is considered far more beneficial than state centralism (Edwards, 2011; Cohen & Arato, 1997).

Civil society is generally concerned with essential issues such as democracy, human rights, and citizen participation. It may also include non-governmental organizations, professional organizations, trade associations, legal associations, and privately owned media (Hai, 2000; Chandhoke, 1995). Additionally, it is an organized group of individuals who come together spontaneously to seek civil rights from the government. Civil society also serves as a channel between individuals and governments. Alongside, civil society sometimes plays a vital role in resolving the dialectical relationship between the government and the people (Gramsci, 1971; Habermas, 1989; Chandhoke, 1995). They generally believe in multi-party democracy (Chandhoke, 1995; Edwards, 2011). In this essay, the terminological and perceived meaning of civil society in contemporary Bangladesh is discussed. Here, the argument is that the term sushil samaj is problematic both in its terminology and in its perceived meaning. It can be suggested that, in the context of Bangladesh, using 'Civil Society' is more appropriate than the Bangla term 'sushil samaj' (Ahmed, 2020; Sen, 2006). This essay also explores the nature of civil society in contemporary Bangladesh. In contemporary Bangladesh, the role of civil society is controversial (Tasnim, 2022). Civil society plays a role from both liberal and Marxist standpoints (Chandhoke, 1995). The significance of civil society in Bangladesh in relation to the state, market, and democracy remains poorly established. (Tasnim 2022, 2024; Lewis, 2011) The role of civil society in Bangladesh is now under threat.

OBJECTIVES OF THE RESEARCH

1. To find out the perceived meaning of the civil society in contemporary Bangladesh, highlighting the ambiguities and public perception.
2. To portray and analyse the fundamental functions of civil society in Bangladesh, with specific clarification to their relationship with the state, market, and democracy.

METHODOLOGY

To study the practical and conceptual dimensions of civil society, this writing employs qualitative and interpretive approaches. As it is needless to say that the concept of civil society is embedded in a historical, political, and cultural context, the article focuses on understanding its institutional practices, popular perception, and terminological meanings in Bangladesh.

Research Design

The study is designed as a documentary and discourse analysis, drawing on secondary sources, including academic literature, historical texts, constitutional references, news

reports, and survey data. This approach enables a critical understanding of how the concept of sushil samaj (civil society) is interpreted, misused, and contested in Bangladesh.

Data Sources:

The research depends on the following sources of information:

Areas	Description
Academic Literature	Theories of civil society from classical thinkers (Aristotle, Hobbes, Hegel, Tocqueville, Marx, Gramsci, Habermas) and contemporary scholars (Chandhoke, Cohen & Arato, Edwards, Sen, Ahmed).
Policy and Constitutional Texts	Relevant articles from the Constitution of Bangladesh, particularly those addressing the term civil servant and its misuse.
NGO and Civil Society Reports	World Bank (2006). CIVICUS and Tasnim (2022) survey findings on the number, roles, and activities of civil society organizations.
Media Sources	Newspaper articles, television talk shows, and online discussions reflect the everyday perception of civil society.
Critical Commentaries	Scholarly critiques of NGOs and donor-driven development (Karim, Paprocki, Cons, Dewan, Lewis).

Analytical Framework:

The analysis is guided by a thematic approach, focusing on four major dimensions:

Areas	Description
Terminological Analysis	Inspecting the contested meaning of civil society and its Bengali equivalents (sushil samaj, nagorik samaj, etc.).
Popular Perception	Reconnoitering how civil society is understood in everyday discourse, particularly in media and rural contexts.
Institutional Role	Evaluating the functions, strengths, and weaknesses of NGOs, trade unions, professional bodies, and other voluntary organizations.
Theoretical Standpoints	This study examines the role of civil society in Bangladesh through liberal-democratic and Marxist perspectives, highlighting tensions among the state, the market, and civil society.

TERMINOLOGICAL MEANING AND PERCEIVED MEANING OF SUSHIL SAMAJ

The Misuse and Conceptual Confusion of “Civil” and “Civil Society” in Bangladesh Constitutional Interpretation and the Misuse of “Civil.”

In recent years, the term civil has been misused in various ways in Bangladesh. A notable example can be found in bureaucratic discourse, where some officials have started using the term Sushil Sevak as a synonym for Civil Servant. Afroza Sultana, a Ph.D. student in the Department of Law at South Asian University, New Delhi, from Bangladesh, highlighted this misuse while discussing the meaning of Sushil Samaj in the Bangladeshi context. Before

joining her Ph.D. program, she worked as a legal officer at Somoy TV, a prominent news channel in Bangladesh.

According to Sultana, such usage constitutes two significant conceptual and legal errors. First, using Sushil Sevak as a synonym for Civil Servant violates Article 153 of the Constitution of Bangladesh. Article 135 of the Constitution uses the term Civil Servant in the sense of *ausamorik pod* (civilian post). Within the constitutional framework, civil refers to civilian in the context of employment, not sushil (gentle or polite). Furthermore, the word servant itself does not appear in the Constitution. Instead, Article 133 substitutes the word *kormo* (work) for service. Therefore, the constitutional equivalent of a Civil Servant would be a person engaged in civilian work.

Second, labelling government employees as civil servants carries ideological implications and may be considered propaganda. As often remarked about the British Indian Civil Service—“they were neither Indian, nor civil, nor servants”—the same criticism can apply in the Bangladeshi context. The British officers were not Indian; many were uncivil in demeanour, and they ruled rather than served. Likewise, in Bangladesh, the use of the term “Sushil Sevak” not only misrepresents the meaning of “civil” but also symbolically glorifies bureaucratic authority. Sultana argues that such misrepresentation could even constitute a violation of Section 420 of the Penal Code as a form of deception.

The Semantic Ambiguity of the Word “Civil.”

The confusion surrounding civil society begins with the multiple meanings of the term “civil” itself. In English, civil can mean polite, courteous, or non-military. In Bangla, however, these distinctions are blurred, leading to widespread misinterpretations. For instance, in legal terminology, the term ‘Civil Court’ refers to the *Dewani Adalat*, which deals with land-related disputes. Similarly, civil war is translated as *griho juddho*—a domestic or internal war. However, no one refers to civil marriage as *sushil bibaho*.

A humorous illustration of this linguistic confusion is found in a story by Gopal Bhar. Gopal once told the king that he had met a “civil boy.” When the king inquired how he knew the boy was civil, Gopal explained that while working in the field, the boy respectfully asked his father to step aside before smoking cannabis, as one should not smoke in front of elders. The story’s irony highlights the absurdity of equating “civil” with merely polite or rule-following behaviour, raising the question of whether members of the so-called civil society actually act in ways consistent with civility.

The Concept of Civil Society: Meaning, Debates, and Misconceptions

The most contentious misuse of the term sushil appears in the phrase Sushil Samaj, or civil society. The concept of civil society has deep philosophical roots but remains contested in meaning and scope. Two enduring ideas define its theoretical basis: first, civil society seeks to establish a “good society”; second, it upholds civility, which entails tolerance and respect for diverse political and social views. As Elliott (2006) notes, “Civility implies tolerance, and mostly the compliance of individuals to accept diverse political views as well as social attitudes.” Thus, civility extends beyond mere politeness to encompass an ethical orientation toward pluralism and coexistence.

However, in practice, the ideal often diverges from reality. Not all civil society organizations (CSOs) embody democratic or progressive values. Carmen, Malena, and von Heinrich (2007) question whether all civil societies are genuinely civil, noting that some institutions within civil society propagate intolerance, violence, or corruption. Civility, therefore, is an ideal rather than a consistent reality.

The conceptual confusion is not unique to Bangladesh. The German philosopher Hegel was among the first modern thinkers to articulate the role of civil society as an intermediary sphere between the state and the individual. He observed that as the state became more powerful, individuals sought to preserve autonomy through associations and institutions outside both the family and the state. For Hegel, the state must regulate civil society, just as civil society monitors the state (Chandhoke, 1995). Right-wing theorists argue that, because markets promote individual rights, market institutions should be regarded as part of civil society. Critics, however, highlight the exploitative nature of markets, citing Smith's (2003, p. 177) classic observation that "People of the same trade rarely meet together... but the conversation ends in a conspiracy against the public." Thus, including market actors in civil society risks legitimising institutions that undermine collective welfare.

To address such ambiguities, CIVICUS, the World Alliance for Citizen Participation, defines civil society as the sphere outside the influence of the family, the state, and the market, in which individuals organise themselves to advance their common interests. This broad definition encompasses religious, cultural, educational, and professional associations; NGOs; grassroots movements; trade unions; and independent media. The public sphere—as theorised by Habermas—functions as the structural foundation of this domain, where individuals deliberate and form public opinion through open communication and debate (Chandhoke, 1995).

Civil Society: A Sphere of Ideals and Contradictions

According to Edwards (2011), civil society encompasses three interrelated components: goals, means, and structures. Its goals include promoting political equality, respect for opposing ideologies, and conflict resolution through dialogue—ideals traceable to thinkers from Aristotle to Hobbes (Cohen & Arato, 1997). The means to achieve these goals are voluntary associations, which Tocqueville viewed as essential mechanisms for realising the purpose of civil society (Chandhoke, 1995). However, these associations often diverge in objectives and interests, creating internal conflicts and necessitating frameworks for exchange and negotiation—the public sphere itself.

Ultimately, all conceptions of civil society converge on a single normative goal: ensuring the accountability of state power. As Chandhoke (1995) emphasises, civil society is central to democracy because it demands citizen engagement and oversight of governmental authority.

The Terminological Debate: “Sushil Samaj” or “Civil Society”

The term Sushil Samaj fails to capture the depth and breadth of the English term civil society. In everyday Bangla, Sushil often carries moral or elitist connotations and is even used sarcastically in political discourse. An alternative translation, Nagarik Samaj (citizen society), is more semantically accurate but still problematic, as it implies unity where civil society is, in fact, fragmented by diverse and often conflicting interest groups. Therefore, retaining the original English term civil society is both practical and conceptually precise. Just as words like table or chair have entered the Bengali lexicon, so too can civil society remain untranslated to preserve its theoretical nuances.

In essence, the diversity of definitions and interpretations of civil society mirrors its diverse roles in contemporary Bangladesh, ranging from advocacy and accountability to contestation and contradiction.

THE POPULAR CONCEPTION OF CIVIL SOCIETY IN BANGLADESH

In Bangladesh, the concept of civil society has developed into a compound and tangled discourse in the public sphere. Popular discourses around the sushil samaj (civil society) adopted a distinctive local exposition that branches considerably from its canonical theoretical formulation. In everyday discourse, the term 'sushil' denotes 'gentle' or 'civilised', which encompasses a category of people who are concerned and often critique the state's policies and practices. This category may comprise individuals or groups. This notion of criticism in everyday life reflects what Gramsci (1971) represented as a sphere of consent and contestation. In this realm, the dominant ideology is practised and negotiated by intellectuals and various social actors.

In common parlance, those who come into contact with various media or online platforms, such as television talk shows, newspaper interviews, and online discussions, are often considered part of the sushil samaj. It aligns with Habermas's (1989) conceptualisation of the public sphere, in which civil society actors intervene between the state and its citizens through 'rational-critical' debates. In Bangladesh, this intimacy is sometimes perceived negatively. In rural settings, progressive and reformist attitudes are often considered sushil in a pejorative sense, as they may conflict with traditional social norms, ideologies, and values. It supports Chatterjee's (2004) idea that, in postcolonial society, civil society is often considered an elite domain, differentiated from the 'political' society, in which a significant section of marginalised people come into contact with the state through informal and negotiated modalities.

Furthermore, in the context of Bangladesh, the role of non-governmental organisations (NGOs) complicated the idea of civil society. Due to their frequent involvement in development activities, policy formation and review, and advocacy, NGOs are considered a significant force within civil society. However, NGOs' activities are often criticised and generate public scepticism due to their efforts to fulfil donor objectives and align with the state, as well as their tendency to establish transitional governmentality (Moose, 2005). Devine (2006) and Lewis (2011) draw attention to understanding the politics of NGOs as civil society. NGOs occupy an ambivalent position, functioning both as agents

of social transformation and as extensions of the neoliberal governance structure (Moose, 2005; Devine, 2006; Lewis, 2011). People perceived that, under the ruling government's regimes, civil society sometimes benefits from state patronage. It further led to the establishment not only of their autonomy but also of their moral authority. It creates a legitimacy crisis within civil society in the Global South and blurs the boundary between the state, market, and its citizen actors (Chandhoke, 1995).

However, in Bangladesh, the concept of civil society is understood in multifaceted ways and is intricately intertwined with theoretical ideas and lived realities. Although civil society is theoretically conceived as a site of democratic engagement and resistance, its local manifestations and interpretations are shaped by tensions arising from power structures, media portrayals, and socio-cultural norms, values, and practices. Thus, the intersection between the state and civil society remains a critical subject in the praxis of academic scholarship, helping to understand how *sushil samaj* operates within the larger governance and socio-cultural framework in Bangladesh.

CIVIL SOCIETY IN CONTEMPORARY BANGLADESH

The use and practice of the concept of 'Civil Society' in Bangladesh is relatively recent. In the context of pre-independence and post-independence Bangladesh, there is a wide gap between the concept and practice of 'civil society'. Pre-independence 'civil society' referred to the conscious student society—the collective, coordinated unity of the masses against West Pakistan (Mamun & Kumar, 1995). Because then the rulers were West Pakistanis and the 'civil' were East Pakistanis (now Bangladesh). As a result, 'representatives of civil society', as the phrase implies, were actually 'representatives of civil society' or 'civil society'. Before independence, civil society representatives (such as activists, intellectuals, and social leaders) may have been more in touch with, or more reflective of, the broader society. However, the chaos started after independence. In post-independence Bangladesh, there has been a radical change in the form, essence, and flavour of 'civil society'. Representatives of 'Civil Society' continue to come from the 'Elite Society'. As a result, the practical and theoretical meanings of 'Civil Society' began to prioritize the interests of elites and the ruling class over those of ordinary people.

So, in whatever sense it is used, under the siege of class interests, 'civil society' changes its inherent character. 'Civil society' is no longer in the purview of civilians or ordinary people. A section of society has hijacked the noble spirit of 'Civil Society' and embraced it. It is the 'elite class who hold the signboard of 'civil society' in this country. They sit in a comfortable room, wet their throats with mineral water, give lectures on social problems as indigenous donors funded by foreign donors, hold seminars and symposia, and beat the drum of 'civil society'. Moreover, they sleep amid a dispute.

Hai (2000) has profiled the character and functioning of 'Civil Society' in Bangladesh. Within 'civil society', he includes 'the media (press, radio, and TV), trade unions, professionals, private voluntary organisations, sports and cultural figures, and social welfare organisations' (Hai, 2000). This is our ideal 'Civil Society'. He also did not mention that the civil society network in Bangladesh comprises retired bureaucrats, NGO representatives, retired military officers, and representatives of multinational companies.

Imtiaz Ahmed (2020) discusses civil society from the perspective of a civilizational quest. His argument on the classical Indian contribution focuses on the differences between *rashtra* and *samaj*. The ruling parties, especially the foreign rulers, did not disturb South Asia, the *samaj*. As a result of our society, civil society passes through the ages without significant change or arbitration. He also pointed out some civil society institutions, namely *masjids*, *waqfs*, and *madrasas*, which have been independent of the state for a long time. His argument about Western contributions also illuminates the secular formation of Western society as a civil society. In his discussion, he prefers civil society over a *sushil samaj*. Academic arguments suggest that the ambiguity of *sushil samaj* forces academics to grapple with the term 'civil society'.

Rangalal Sen (2006) advocated using the term 'civil society' rather than 'sushil samaj' or other connotations of 'nagorik samaj'. His discussion focuses on the debate over Adam Ferguson, widely regarded as the first academic to discuss civil society. He suggested that we use civil society in our discussion of *Sushil Samaj*.

All these buzzwords have nothing to do with the so-called 'civil society' and the real civilians. They do not know the cruelty of exploiting the labour of peasants, labourers, and day labourers. When the houses of the minorities were burnt, they prepared for the talk show on the TV channel. They are Bangladesh's 'Representatives of Civil Society' or 'Civil Society'. Moreover, today, the educated urban citizen class, or 'civil society', is the 'elite society' or 'elite classes of the society'. They are, in fact, friends of the ruling class.

Some researchers and intellectuals in Bangladesh have sought to examine the relationship between good governance and 'civil society'. Civil society often serves as a watchdog, monitoring the activities of state entities. It aims to build a transparent government and reduce corruption and misuse of power and resources by formulating, evaluating, and monitoring various policies and legal frameworks (Sen, 2006). That being said, an effective 'civil society' can ensure good governance in the state. However, the existing and active 'civil society' of Bangladesh is a part of the state apparatus. A state that protects the interests of elites cannot care for the welfare of civilians. Moreover, since 'civil society' is the 'elite society' of the society, it is their 'work' to show the interests of the state. This is the real 'work', while the mask above is 'show up'. The role of the current 'civil society' is to favour the elite by dominating civilians and betraying them (Tasnim, 2022; Tasnim, 2024).

It is tough to estimate the exact number of civil society organisations in Bangladesh. NGOs, or non-governmental organisations, are part of civil society. However, there are many types of NGOs in Bangladesh. Some NGOs have fewer than 100 members. There are also NGOs like BRAC, which has a membership of several lakhs and is considered one of the largest NGOs in the world. Aggregating small and large civil organisations together yields no meaningful data. According to a World Bank (2006) report, there were about 45,000 NGOs in Bangladesh in 2000, most of which were inactive (an estimated 1,200 were active). Among them, around 2,000 NGOs are registered to receive foreign aid. At least 90 per cent of villages in Bangladesh have at least one NGO presence. Therefore, the importance of NGOs cannot be assessed solely by their number.

On the other hand, according to the theory, *somobai somiti*³ (cooperative society) It is classified as a form of civil society. According to the government, there are about two lakh cooperative societies in Bangladesh. According to the theory of civil society, cooperative societies are considered voluntary organisations. However, this assumption does not align with the realities of Bangladesh. At least 99 percent of cooperative societies in Bangladesh are government-initiated, government-financed, and government-controlled. They are not voluntary organisations in any sense; they are a kind of branch of a cooperative department. In addition, most of them are bankrupt and inactive for extended periods. There is no justification for considering them civil society organisations.

Tasnim (2022) shows that the number of civil organizations registered in Bangladesh in 2007 was 2,59,776. This number is exaggerated. Tasnim's list includes 1,89,847 cooperative societies. Excluding cooperative societies, the number of civil society organizations is estimated at approximately 70,000. Of this number, 45,508 social welfare organizations are inactive. If such institutions are excluded, the number of civil organizations in Bangladesh could reach 1,500. However, the expansion of civil society organizations in Bangladesh cannot be measured solely by this number. It includes many NGOs with hundreds of branches. The NGO survey indicates that civil society organizations are present in 100% of cities and in at least 90% of villages in Bangladesh.

Time	The total number of civil societies	After the Independence (1970-2006), the number of civil societies in %	Cumulative percentage
1970-1975	38	7.6	7.6
1975-1980	40	8.0	15.6
1980-1984	70	13.8	29.4
1985-1989	67	13.3	42.7
1990-1995	50	9.9	52.6
1995-1999	90	17.8	70.4
2000-2006	115	22.8	93.2

The table presents trends in the establishment of civil organizations in Bangladesh since independence. The data in this table is collected based on a sample survey of 504 establishments. (Sources: Tasnim, 2022).

In Bangladesh, civil society organizations emerged mainly after the 1990s. A significant reason for the expansion of civil society organizations during this period was that

³ The literal meaning of *somobai somiti* (cooperative society) is an autonomous association of people where they meet to fulfill their everyday economic, social, and cultural needs and aspirations through a jointly owned as well as democratically controlled enterprise.

the concept of civil society gained favour among donors following the collapse of communist regimes in Eastern Europe in the 1990s. Before the 1990s, there was a proliferation of non-governmental organizations in Bangladesh. However, since 1990, voluntary organizations have undertaken new activities in Bangladesh. Such activities are known as civic advocacy or citizen campaigns for various political and social demands. Some civil society organizations undertake such work alongside other activities. Some organizations engage themselves only for their branding. However, private organizations are closely involved in such work (Tasnim, 2022).

A World Bank report (2006) indicates that 42 percent of NGOs in Bangladesh negotiate with the government regarding their demands, and 93 percent raise awareness among their members of these demands. However, NGOs do not always choose to engage in politics. In many cases, they are forced to engage in conflict with the government at various levels, even though they do not want to.

In the last two decades, civil society in Bangladesh has attracted political attention by articulating a range of demands. In particular, women's organizations have achieved significant success in advancing women's empowerment. Some organizations are skilled in creating public awareness in particular areas. For example, Transparency International of Bangladesh, in case of corruption, Centre for Law and Arbitration in case of human rights, FEMA or Fair Election Monitoring Association in case of elections, SUJAN and SUPRO in case of good governance, democracy, voting, and political rights, CPD (Centre for Policy Dialogue) works for the government. State's economic policy formation, BELA (Bangladesh Environmental Law Association), in the case of the environment, BAPA (Bangladesh Environment Movement), etc., are examples of organizations that played a leading role in restoring democracy in the early 1990s. Again, during the last caretaker government (2006-08), such organizations were vocal in demanding various reforms (Tasnim, 2022; Tasnim, 2024).

A review of recent activities of civil society organizations in Bangladesh indicates that civil society is highly vibrant and influential, with a significant role. This assessment has several weaknesses. First, the role of civil society is not always effective. When societies become depoliticized or when autocratic governments weaken political parties, the importance of civil society increases. For example, the rise of civil society organizations was significant at the end of the Ershad regime and during the military-backed caretaker government. However, their role is limited under political rule, as political parties sometimes influence civil society (Tasnim, 2017).

Second, civil society organizations in Bangladesh are preoccupied with minor issues. A tiny part of them is interested in political demands. The table below presents the results of a survey on the demands and contributions of civil society organizations in the presentence phase.

Demand/working sectors	Economic	Educational and cultural	Organization for achieving demands	Organization for Welfare and Development	Total
Village Development	20.7	6.1	0	24.1	16
Local demand	20.7	6.1	25	27.2	18
Empowering Women	25	12.2	12.5	54.5	31
Education & Literacy	32.8	81.6	50	62.5	44
Health service	46.6	57.1	50	66.5	46
Law, democracy, and human rights	12.1	20.4	25	28.6	17
Economic empowerment	65.5	28.6	37.5	57.6	44
Social & political awareness	26.7	36.7	50	42.9	33

Table: Analysis of demands and contributions of civil society organizations. Source: Tasnim, 2022.

A survey of 500 civil society organizations shows that only 17 percent are conducting activities aimed at achieving legal, political, and human rights. However, 46 percent of the organizations provide health, education, and services. 44% of organizations are interested in advancing members' economic empowerment. Forty-four percent of organizations are enthusiastic about education and literacy programs. The table above shows that protecting the political and human rights of members is the least popular activity among civil society organizations in Bangladesh. So, what is said about the vibrant political role of civil society in Bangladesh is primarily an exaggeration. A significant reason for this is that non-governmental organizations in Bangladesh are cautious about taking on controversial political roles (Tasnim, 2022).



Image: Some leading news headlines about the Civil Society in contemporary Bangladesh.

On the one hand, NGOs (non-governmental organizations) are the most significant force in Bangladesh's civil society. More than two crore citizens are participating in NGOs' activities. On the other hand, NGOs are the greatest weakness of Bangladesh's civil society. A World Bank study (2006) reports that 92 percent of NGO branches engage in lending as their primary activity. These institutions aim to provide loans on a commercial basis. This epistemic shift towards commercial finance has significant implications for NGOs' understanding of the civil society sphere. It addresses lending activities in which many NGOs are, directly or indirectly, driven by profit-seeking logic and seek financial benefits. At the same time, the empowerment of marginalized groups and the reform of the political sphere remain in the shadows (Karim, 2011). This nature creates a paradoxical situation for civil society that often reinforces economic dependency rather than building a sustainable solution and an equitable sphere. Building sustainable organizations through proper management is a novel approach (Devin, 2003). However, one of its major problems is that a stable social and political environment is essential for implementing a successful credit program, yet it is difficult to achieve. One of the responsibilities of civil society is to effect social change; if necessary, it can destabilize the country. They are not afraid of doing this. However, for NGOs, such instability is detrimental to securing donor funding. In addition, NGOs undertake numerous activities funded by the government. In many cases, they have to comply with government regulations. Based on experience over the last decade, it is clear that NGOs seeking to exert control over the government or to oppose it face government action. In this context, Grameen Bank's experience is notable. Scholars also critique NGOs. Dewan (2021), Paprocki (2021), and Cons (2022) argue that in coastal areas, various NGOs and donor agencies employ developmental interventions. For example, establish embankments that cause flooding rather than protect against it. Additionally, various NGOs and development agencies use this coastal area as a site for experimentation. They are branding shrimp cultivation as a climate mitigation tool, despite studies showing that it is one of the leading causes of salinity in the water and soil. Karim (2011) argues that NGOs primarily rule over women rather than emancipate them. Therefore, most NGOs in Bangladesh, whether consciously or unconsciously, become prominent defenders of the status quo and of controversial issues. It is, therefore, open to question whether NGOs should be considered part of civil society (Stiles, 2002, 2002a).

Civil society gains power by creating unity among citizens. Civil society in Bangladesh is fragmented and, in many cases, in conflict with itself. In this context, Stiles (2002, 110) rightly writes that the degree of political penetration of civil society is extreme. Labour unions, professional organisations, universities, trade associations, and newspapers are all marked by political identity. Advancement in most professions largely depends on the superior's preferred politics, and even NGOs seek to join with political groups. A civil society divided along political lines is unable to undertake meaningful initiatives for change. According to Habermas, civil society builds consensus in favor of the rule of law. However, politics in Bangladesh has also made the judiciary controversial. In such an environment, it is not possible to develop public opinion through consensus in Habermas's imagined public sphere (Chandhoke, 1995).

Most of the civil society organizations in Bangladesh are losing strength due to competition among themselves. However, in most cases, their power is minimal. A survey of 500 civil society organizations shows that 86 percent have fewer than 1,000 members. 65% of civil society organizations have fewer than 100 members (Tasnim, 2022). Large voluntary organizations are NGOs that prioritize business over social services. In this situation, it is tough for small civil society organizations to lead large-scale change.

Another weakness of civil society organizations in Bangladesh is corruption. Tasnim (2022) analysed the coverage of civil society organizations across three newspapers in three selected years (2001, 2006, and 2007), totalling 18 months. This analysis found 122 news stories about anomalies and chaos within civil society organizations. On average, every 14 days, there is news about NGOs' anomalies and chaos. Among them, 69 were allegations of corruption. There are allegations of corruption against various civil society organizations. However, the highest number of corruption allegations is against labour unions. Education and cultural civil society organizations ranked second in terms of the number of corruption complaints. Allegations of corruption range from cooperatives to trade unions—all types of civil society organizations. Sometimes such organizations are owned by the founders and their families. In these cases, transparency, accountability, and internal democracy are not always present in the organization's work. The image of civil society organizations as a whole is not above question in many cases. Civil society organizations need to reform themselves before changing the world around them.

Drawing on the above discussion, it can be seen that in Bangladesh, the nature of civil society is embedded in the liberal and Marxist traditions and is broadly connected to the theoretical frameworks of Tocqueville, Mill, and Gramsci. Scholars such as Mill and Tocqueville adopt a liberal view of civil society as a sphere of voluntary activity that enhances the democratic environment, protects individual freedom, and serves as a counterbalance to the state's absolute power. In this case, various activity groups, rights-based organizations, and NGOs often promote pluralism and public deliberation. On the other hand, Gramscian philosophy often characterizes civil society as a sphere of ideological struggle in which the dominant group seeks to establish hegemony and the marginal group seeks to resist it. In Bangladesh's political culture, various student groups, workers' parties, and advocacy coalitions play multifaceted roles, often serving as civil society actors and frequently becoming sites of contestation, negotiation, and power struggles. Thus, in contemporary Bangladesh, civil society can be understood through both Marxist and liberal lenses, which describe how it simultaneously interacts with power, hegemony, and democratic participation.

CONCLUSION

Contemporary Bangladesh is undergoing a period of transition across its economic, social, political, cultural, and religious life. Instability, corruption, dishonesty, and intolerance are rampant in every nook and cranny of society. People's sense of responsibility, devotion to duty, and truthfulness are mainly absent from society today. At such a time, when the state is supposed to be the friend of the people, the state has become the enemy of the ordinary people.

Ordinary citizens expect a little peace, hope to be peaceful, and entrust the management of this state to a political party. However, when they come to power, they all become exploiters rather than servants of the people.

In such a desperate situation, the need for a strong 'Civil Society Representative' or 'Civil Society' is essential. It is they who will direct or compel the government to act as the state's guardian. Will strive to protect the interests of the ordinary people (civilians). Be the true representative of the people and motivate and persuade the government to prioritize the people's welfare. A 'Civil Society Representative' or 'Civil Society' will act as a fraternal bridge between the government and the people, or between the state and the people.

They will not only prevent the government from becoming arbitrary but also guide the people in maintaining law and order and promoting the country's development and prosperity. A 'Civil Society' can make the state a true friend of the people through its positive role. It will be possible to make the government a servant rather than a ruler of the people. Moreover, if the activities of 'representatives of civil society' can play a positive and qualitative role, their inherent, traditional, and historical greatness will be successful.

In Bangladesh, civil society is embedded within both liberal (Tocqueville and Mill) and Marxist (Gramsci) traditions. Sometimes civil society operates as a voluntary association; at other times, the state rules over it, and civil society works in favour of the elite and the state. Also, in contemporary Bangladesh, civil society is present in the state, democracy, and the market, but it is not as significant as observed in the table above.

It is undeniable that all theories are created for the welfare of people. Because people use it for their own benefit through practice, the theory's benefits are felt and realised in the lives of ordinary people. In the case of 'Civil Society', there is also a wide gap between theory and practice in Bangladesh. Also, the term sushil samaj, used as a synonym for civil society, is contradictory. So, it is better to avoid the contradictory Bangla meaning and use it directly in civil society. However, a beautiful, happy, and prosperous Bangladesh can be built only through a comprehensive, mutually beneficial partnership between the state and civil society.

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Social Capital for Enhancing Family and Community Networks of Remittance-Receiving Households in Northern Bangladesh

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ABSTRACT

Social capital is related to enhancing family and community networks. It promotes wellbeing to the remittance-receiving households. This study investigates how three types of social capital (bonding, bridging, and linking) contribute to improving family and community networks. This study employed both quantitative and qualitative (mixed-methods) approaches. For quantitative data, structured questionnaires were administered through interview schedules to 400 respondents (the dependent heads of migrant workers' families) across four districts in two divisions of northern Bangladesh. For qualitative data, 18 key informants and nine in-depth interviews were conducted among experts, community leaders, former migrant workers, and academics in the field of migration. Individuals can maintain family and community-related communication through applying these three types of social capital on offer. Bridging and linking social capital instrumentally helps reconnect people by accomplishing humanitarian actions and fulfilling social needs in the community. As mitigating social problems alongside the economic needs of the community people, social capital facilitates increasing social engagement and cooperation. With the help of bonding social capital in the decision-making process, migrant workers and their left-behind families can particularly overcome family-related challenges. At the same time, it offers them the opportunity to preserve psycho-social integrity and wellbeing by increasing family and community networks, which can lead to improved emotional support and a stronger sense of belonging. As community resilience during post-migration, social capital applies to mitigate socio-economic and cultural threats to remittance-receiving households in Northern Bangladesh. Bridging social capital enhances social networks within community settings. Therefore, the application of these social capitals works for the improvement of the family and community networks of the left-behind households of northern Bangladesh.

JEL Classifications: A13, F22 & 24, 01, R23, Z13

Keywords: Community Network, Family Network, Social Capital, Northern Bangladesh

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INTRODUCTION

Social capital is related to social relations, which increase the ability of an individual in dealing with economic, cultural, and social resources. 'Social capital' refers to keeping attachments among family members, neighbours, friends, near or distant relatives, and other associated people in a community (Putnam 1993). Individuals in modern society are based on interconnected networks with adequate trust — among family members, community people and institutional settings (Seligman 1997). By practising social networks, individuals use them to manage their social and family struggles. Thus, social capital is connected with different groups of people in the community (Bourdieu, 1986). However, there is a nexus between social capital and migration. This connection enhances family and community networks by fostering bonding relationships that contribute to their wellbeing (Prayitno, 2014). The key purpose of applying social capital (bonding, bridging, and linking) is to improve connectivity among family members, neighbours, close relatives, and other corresponding people (Babaei et al. 2012).

Study findings have revealed that migrant workers positively participate in conducting social cooperative activities through using social capital. Along with maintaining family and social communication, migrant workers, along with LBFMs, jointly are aware of exchanging social and psychological support for their wellbeing. Therefore, the contribution of applying social capital instrumentally offers to maintain a peaceful relationship that particularly enhances family and social networks for the wellbeing of remittance-receiving families in northern Bangladesh. Consequently, family and community networks have been positively improved through using the social capital concept.

STATEMENT OF THE PROBLEM

Being a social institution, family plays a significant part for human beings, taught socialisation by birth. Individuals have to learn how to maintain connection with family members. At the same time, they have to build social attachment with corresponding people in the community. But in reality, it is a challenging thing to properly maintain family and social communication. Particularly, it is difficult during the conducting of community-based initiatives collectively (Prayitno et al. 2014). Fundamentally, the family with migrant worker has been struggling to keep family and social network for numerous reasons in daily life. In this point, the application of social capital works to enhance family and social networks by reconnecting associated people (Ponthieux 2004). To deal with community-related matters, mutual relationship and cooperation can be increased through applying the social capital concept (Palloni et al. 2001). Because it is required to grow positive mindsets in the other people, which is related to the relational and family wellbeing of them (Grootaert & Bastelar, 2022). As the scope of the study, to what extents social capital facilitate the enhancement of family and community networks for the betterment of families with migrant workers in northern Bangladesh mostly?

REVIEW OF LITERATURE

Social capital basically consists of three main components, namely, trust, norms, and reciprocity. Moreover, social capital has a connection with social support, family or

community engagement toward promoting wellbeing (Ponthieux 2004). Modern society is interconnected for numerous reasons, stating social capital as the feature of family and social life (Putnam 1993). Reversely, social capital demonstrates dealing with family- and society-related barriers in daily activity (Bourdieu, 1986). In both family and community settings, social capital facilitates individuals to improve mutual networks and relationships with all corresponding people (Aral & Alytne 2011). Four important pillars are contextualised in the application of social capital, namely, a) individual relationships, b) social networks, c) mutual cooperation, and d) community engagement. These contribute to keeping a connection of family and social activities in association with the wellbeing of them (Scrivens & Smith 2013). The issues raised by the society have a significant impact on having homogeneous communication or networks (Wang 2014). Therefore, social capital is necessary to maintain purposive communication, offering individuals to tackle crisis situations (Van Deth & Zmerli 2010).

Literature suggests that social capital has a significant impact on enhancing family and community networks toward socio-economic, psychological, and relational wellbeing (Sun et al., 2008). And social capital is associated with having mutual trust, honour, and a supportive attitude of solving problems (Bai et al. 2019). Nowadays, social capital is used to conduct research in the fields of sociology, social work, economics, anthropology, and psychology for generating new knowledge (Portes 1998). In this study, three types of social capital (bonding, bridging, and linking) are mainly considered for reaching the objectives of this study. Hence, bridging social capital helps individuals to maintain social relationships and cooperation for numerous reasons in community settings offering psychosocial wellbeing (Grootaert & Bastelar 2022).

SOCIAL CAPITAL THEORY

Social capital has a connection with social supports, family or community engagement toward promoting wellbeing (Ponthieux 2004). Social connection exists in keeping the socio-economic, cultural and psychological well-being of the households. These outcomes using social capital are vastly interconnected with the social and psychological wellbeing of the households (Vermaak 2006). According to the main characteristics and functions, social capital has been categorised into (i) bonding, bridging and linking (Ferlander 2007; Harpham 2002; DiClemente 2002; Woolcock & Narayan 2000) and (ii) structural, cognitive and relational (Krishna 2001; Uphoff & Wijayaratra 2000). Social capital works to strengthen social identities by sharing thoughts among them. Bridging social capital refers to maintaining distant connections among the people from a heterogeneous group (Harpham 2002; DiClemente 2002; Putnam 2000). Linking social capital works to maintain a vertical communication and relationship of persons at institutional levels in a formal environment (DiClemente 2002; Szreter & Woolcock 2004; Woolcock & Narayan 2000). At this point, structural social capital refers to maintaining external relationships within social constructions such as intimate relationships. But cognitive social capital defines two intangible aspects of communication and relationships leading to trust and reciprocity (Harpham 2002; Uphoff & Wijayaratra 2000). In the end, relational social capital means the trend and purpose of social relationships (Nahapiet and Ghoshal 1998). However, this

dimension is not widely applied with cognitive and structural social capital (Murayama, Fujiwara & Kawachi 2012).

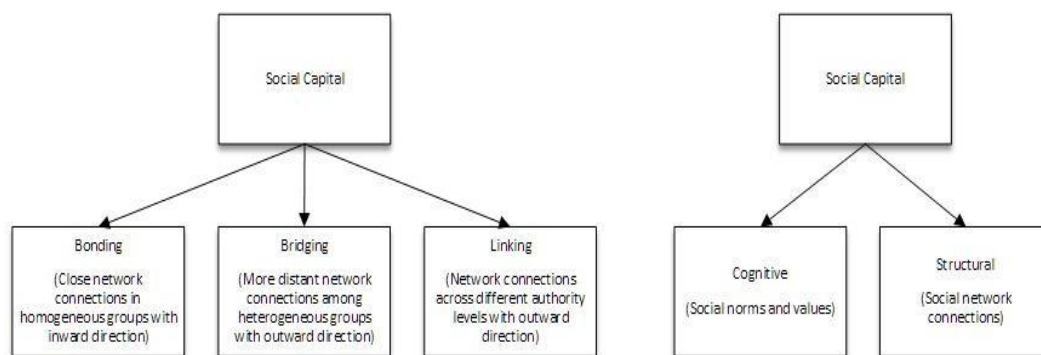


FIGURE 1. CATEGORIES OF SOCIAL CAPITAL – DISTINCTION BASED ON THE PROXIMITY OF LINKAGES AND THE WAY OF THE SOCIAL ACTION – DIRECTIONS AND DIMENSIONS OF SOCIAL CAPITAL

Source: Theory of social capital cited from Putnam, 2000

OBJECTIVES OF THE STUDY

The core purpose of the study is to investigate the application of social capital (bonding, bridging, and linking) for improving family- and community-related networks of the family with migrant workers in northern Bangladesh. Here, specific objectives of this study are as follows: -

- To explore socio-economic conditions, and the current scenario of taking daily meals of remittance-receiving households in northern Bangladesh;
- To find whether or to what extent social capital facilitates improving friendship relations between family persons and community people;
- To demonstrate the concept of bonding, bridging and linking social capital for reconnecting mutual connection, thoughts, and decisions; and
- To investigate what extents social capital contributes to enhancing family and community networks to the wellbeing of left-behind family with migrant workers.

METHODS OF THE STUDY

Both quantitative and qualitative (mixed-methods) approaches were used in this study. For selecting study areas, four districts of two divisions (Rangpur and Rajshahi) in Northern Bangladesh were chosen purposively, namely, Rangpur, Gaibandha, Bogura and Joypurhat, respectively. In this regard, *Tambulpur Union* from *Pirgacha Upazila* in Rangpur, *Sarbanda Union* from *Sundargonj Upazila* in Gaibandha, *Namuja Union* from *Bogura Sadar Upazila* in Bogura, and *Zinderpur Union* from *Kalai Upazila* in Joypurhat were taken purposively (Trochim, 2002). For determining study respondents, the dependent heads of the migrant workers who had at least one migrant family member abroad for 2 years or more were considered study respondents. In addition, the researcher first created a list of the families with migrant workers in the studied areas of Northern Bangladesh. Then, 400 study

respondents were selected (100 respondents from each district of two divisions) by using systematic random sampling (Kothari 2014). Government data on migrant workers was only available up to district levels. From union levels, the researcher has initially created a list of migrant workers in the studied districts of northern Bangladesh. In case of applying the systematic random sampling technique, sample households for each union have been calculated by using the following formula:-

$$n = \frac{z^2 \cdot p \cdot q \cdot N}{e^2 (N-1) + z^2 \cdot p \cdot q}$$

$$n = \frac{z^2 \cdot p \cdot q \cdot N}{e^2 (N-1) + z^2 \cdot p \cdot q} = \frac{(1.96)^2 \times 0.5 \times 0.5 \times 91714}{(0.05)^2 (91714-1) + (1.96)^2 \times 0.5 \times 0.5} = \frac{88068.368}{230.242} = 382.503 \approx 383$$

Here,

n= Sample size

N= **91,714** of listed migrant workers at district-levels of northern Bangladesh only

z= Confidence level (at 95% probability = 1.96)

e= Acceptable error (error limit 5%, i.e., 0.05)

p= Estimated population proportion (0.5 this maximizes the sample size)

q= 1-p = (1-0.5) = 0.5

Therefore, the number of calculated sample sizes is 383. But, 400 sample sizes were taken for this study.⁴

For collecting qualitative data, 18 KIIs were conducted among migrant workers (currently staying abroad), former migrant workers (permanently living in Bangladesh), community leaders (*Union Parishad* chairmen/members) or community social workers, and field activists of NGOs (Non-Governmental Organisations) connected with migrant workers' families in the studied areas of Northern Bangladesh. Besides, 9 in-depth interviews were also conducted among experts in the field of migration for justifying the results taken from quantitative data.

SOCIO-ECONOMIC AND DEMOGRAPHIC INFORMATION

Age of Migrant Workers

The age structure of migrant workers has been divided into five groups according to the age distribution. The average age of the migrant workers is 34.16 years, with a *standard deviation (SD)* of 8.45 years. Here, 31.2% of the migrant workers are between 18 and 29 years, 36% between 30 and 39 years, 24.9% between 40 and 49 years, and 7.1% between 50 and 59 years, respectively. The rest of the migrant workers (0.3%) are 60 years or above.

⁴ The researcher has included more 17 samples (383+17=400) as government data of migrant workers were available up to the district levels only. From union levels, using systematic sampling, more 17 samples have been added purposively.

The majority of the migrant workers from Bangladesh go to foreign countries between 15 and 35 years of age, which is 55.65 per cent. Besides, another 42.43 per cent of the migrant workers are between 35 and 55 years of age (Akter et al. 2017).

Status of Working Countries

In terms of having the categorisation of working countries of the migrant workers from Bangladesh, a list of countries has been divided into three categories, namely, Middle Eastern countries, South Eastern Asian countries and the rest of the countries across the world.

**TABLE 1. CLASSIFICATION OF WORKING COUNTRIES OF MIGRANT WORKERS
(N=400)**

Regions	Name of Working Countries	(n)	(%)	Total (%)
Middle-Eastern Asia	Saudi Arabia	122	30.1	49.8
	Oman	5	1.3	
	Qatar	25	6.3	
	Kuwait	9	2.3	
	UAE	6	1.5	
	Yemen	1	0.3	
	Dubai	26	6.5	
	Iraq	6	1.5	
South-Eastern Asia	Malaysia	171	42.6	46.7
	Singapore	12	3.0	
	Vietnam	1	0.3	
	Brunei	3	0.8	
	Rumania	5	1.3	
Rest of the World	Italy	2	0.5	3.5
	Greece	1	0.3	
	Libya	2	0.5	
	Moraceous	1	0.3	
	South Korea	1	0.3	
	Maldives	1	0.3	
Total		N=400	100%	100%

Source: Field Survey, 2022

Table 1 suggests that the highest per cent of the migrant workers work in Middle-East countries (nearly 50%), in which maximum cent of the migrant workers (30.1 per cent) have migrated to Saudi Arabia, followed by Dubai and Qatar (6.5 per cent and 6.3 per cent, respectively). One of the migrant workers has said that “I have been working in

Malaysia for 13 years now. There are over 2,000 Bangladeshi migrant workers in my working province in Malaysia. Therefore, the number of Bangladeshi workers in Malaysia has been increasing in recent decades. And I can assume that Malaysia is going to be one of the favourite working destination countries of the world.” (In-depth Interview-08).

Employment Period

According to Figure 2, it represents the working status of the migrant workers. Working years of the migrant workers have been classified in five categories, namely, 1-5 years, 6-10 years, 11-16 years, 16-20 years, and above 20 years. According to the respondents’ statement, 77.1% of the migrant workers have been staying away from family between 1 year and 5 years, which is the highest.

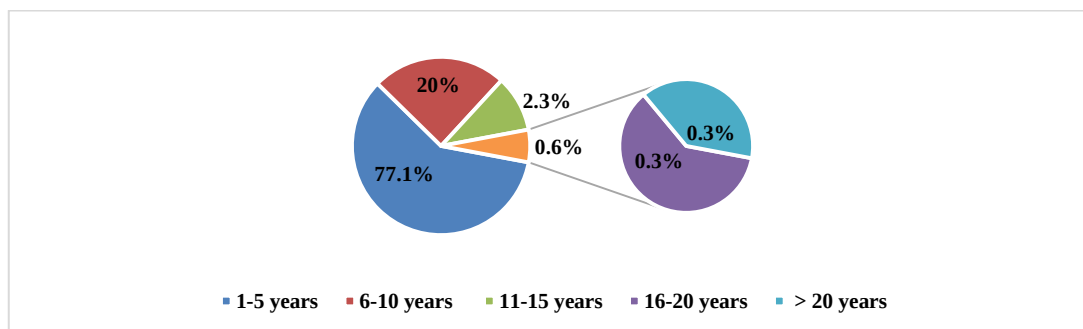


FIGURE 2. EMPLOYEE TENURE OF MIGRANT WORKERS (N=400)

Source: *Field Survey, 2022*

Another 20 per cent of the migrant workers have been working in foreign countries for 6-10 years. But the migrant workers have been working for 11-15 years, 16-20 years, and above 20 years (2.3%, 0.3% and 0.3%, respectively). The reason is that migrant workers are more interested in staying abroad due to a lack of unemployment opportunities, lower wages in the labour market, socio-political instability, etc. in Bangladesh (KII-13).

Sources of Family Income

The economic development of the migrant workers’ families is vastly dependent on remittances from the migrated family member(s) alongside income from the left-behind earning family member, selling crops from agriculture, family income from livestock, and business. The sources of family income are as follows:

Remittance from Migrant Worker

The family of the migrant workers mostly relies on receiving remittances from the migrated family member(s). Remittance undoubtedly plays an important role for paying off debt after migration, particularly. Furthermore, remittances offer to increase the earning opportunities for the family members of the migrant workers (Carletto 2006). In this regard, the duration of the working years, types of profession, and working country of the migration workers abroad affect sending remittances to their families in their home country (Salam 2003). Therefore, remittance offers the economic development of the migrant workers’ families as a whole.

Income of Family Members

Income from earning members of the family facilitates economic development of the family. Male earning members of the family mostly contribute money to the family more than female family members. Nowadays, female family members like spouses get involved in earning activities both inside and outside of the family. In a crisis situation for the family, the contribution of money from the earning female family member instrumentally works to mitigate the money crisis of their family (Branden 2013).

Income from Agriculture

The findings of this study reveal that the migrant workers' families mostly cultivate inheritance lands. One of the KIIs has shared wonderful insights in this regard. He says many of the migrant workers' families invest money from remittances. But the profitable money from agriculture deposit banks is for the betterment of the family (KII-05, 16 March 2023). That means money from agriculture is considered one of the important sectors of savings among the families of the migrant workers mainly.

Income from Live-stock Farming

In Bangladesh, livestock farming is considered one of the sustainable profit-making sectors, where all family members of the migrant workers can equally contribute to carrying out livestock farming as a whole. Live-stock farming is one of the promising sectors of Bangladesh. Hence, nowadays, the trend of investing money in livestock farming is increasing day by day. One of the in-depth interviewees has shared that the migrant workers' families have at least 1 to 3 head of livestock in their house. Afterward, the selling money of livestock deposits as their family savings (KII-17).

Income from Business

In recent decades, the families of the migrant workers have been investing more money in developing their own businesses through entrepreneurs rather than investing money in agriculture and other economic sectors of the family. Consequently, the contribution of money from business instrumentally works to deal with a quick recovery from the economic crisis or debt of the family. On the other hand, investing money in a business has threats of losing a huge amount substantial investing money within a short period of the entrepreneurship journey.

TABLE 2. TABULATION OF MEAN DIFFERENCES OF FAMILY INCOME SOURCES

Sources of Family Income (n)	Frequency	Mean	Std. Deviation
Remittance from Migrant Worker	400	360875.00	142398.605
Income of Family Member (s)	82	114646.34	71220.467
Income from Agriculture	182	117909.34	68584.777
Income from Live-stock	42	87023.81	53255.247
Income from Business	6	174666.67	135685.912

Source: Field Survey, 2022

Based on Table 2, the sources of the family incomes have been demonstrated, where the mean of remittance is 360875 as the highest family income. The lowest mean from livestock is 87023.81 (SD=53255.247).

TABLE 3. ASSOCIATION AMONG FAMILY INCOME VARIABLES WITH REMITTANCE

Categories of Family Income		Remittance	Family Member	Agriculture	Live-stock
Remittance	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	400			
Family Member	Pearson Correlation	0.242	1		
	Sig. (2-tailed)	0.028*			
	N	82	82		
Agriculture	Pearson Correlation	0.252	0.511	1	
	Sig. (2-tailed)	0.001**	0.001**		
	N	182	36	182	
Live-stock	Pearson Correlation	0.366	1.000	-0.011	1
	Sig. (2-tailed)	0.017*	.	0.963	
	N	42	2	21	42

Source: Field Survey 2022

* $p < 0.05$; ** $p < 0.01$

As shown in the Table 3, it demonstrates among different categories of family income. Here, it is clearly seen that r value from income of family members excluding migrant workers is 0.242 with $p = 0.028 < 0.05$. It indicates that the contribution of income of family members is statistically significant.

FAMILY RELATION AND WELLBEING

Frequency of Family Interaction

To carry out family relations, meaningful communication is required to lead a peaceful family life for numerous reasons of daily life. Internal communication among family members of migrant workers is essential not only for maintaining relationships but also for addressing economic needs and supporting the family's growth. It offers conveying family-related messages among each of the family members purposively (Haug 2008). This study finds that migrant workers always want to virtually stay connected with family members, as stated by their dependent family members. At this point, social capital applies to improve connectivity for the betterment of the family. That means bonding social capital facilitates reconnecting them for discussing and resolving family-related issues. One of the participants of KII stated the following:

Although having countless constraints, migrant workers never feel alone by physically being far from family. And they frequently can communicate with the rest of the family members by using the internet and social media devices, not only for the purpose of economic matters but also for other relevant matters of households. (KII-03)

TABLE 4. COMMUNICATION PREVALENCE OF FAMILY MEMBERS WITH MIGRANT WORKERS

Frequency of Communication	With Elderly People			With Children			With Rest of the Family Members		
	(n)	(%)	Mean	(n)	(%)	Mean	(n)	(%)	Mean
Always	182	45.5		160	40.0		270	67.5	
Often	153	38.3		122	30.5		72	18.0	
Sometime	36	9.0		51	12.8		41	10.3	
Seldom	16	4.0	1.82	27	6.8	2.19	11	2.8	1.53
Never	10	2.5		29	7.3		4	1.0	
No Answer	3	0.8		11	2.8		2	0.5	
Total (N & %)	400	100		400	100		400	100	

(0=No Answer, 1=Never, 2=Seldom, 3=Sometime, 4=Often, 5=Always)

Source: Field Survey, 2022

The findings from Table 4 suggest that migrant workers are enabled to communicate with the left-behind family members (LBFMs) as their internal communication. Here, it is clearly seen that highest percent of the total 400 respondents have given the statement “Always” (67.5% of all family members, 45.5% of ageing people, and 40% of children, respectively). In this regard, migrant workers can provide the facilitation of social care and play a role for ageing people to ensure quality care through social communication (Cangiano 2010).

Family Bonding and Relational Wellbeing

Family bonding and relational wellbeing vastly depend on how family members, including migrant workers, carry out cooperative engagement among themselves. Wellbeing is impossible without having close attachment and cooperation among each family member. In this regard, cooperative hands from migrant workers are helpful in preserving family bonding and the relational wellbeing of the LBFMs. Similarly, LBFMs also can play a few crucial roles in terms of getting the protection of migrant workers toward migratory movements and other relevant issues. They can collectively force the government against any illegal steps to their migrant family members, whether at home or abroad. That has to be improved or ensured total well-being (social, economic, psycho-social, occupational, and environmental well-being mostly) through the cooperative intervention of LBFMs during post-migration situations (Juddi, Perbawasari & Zubair 2021).

We, as individuals, either migrant workers or LBFMs, are used to seeing the very front side of migration, like remittances, development of family lifestyle, improvement of households, increasing savings, etc. But in reality, according to my experience as an ex. Remittances' sender, I practically understand what constraints are actually faced by a migrant worker in a challenging situation. Whenever migrant workers are forced by agencies to change jobs or location, it is very difficult to be psychologically and mentally fit enough. Meanwhile, they (migrant workers) communicate with LBFMs and all corresponding people back home, and they are not able to keep bonding relationships with LBFMs properly. This is actually not the default of migrant workers only, but it might be hampered and have negative consequences of working environments throughout the migration period, unfortunately (In-depth Interview 03).

TABLE 5. FAMILY-RELATED RESPONSIBILITIES OF MIGRANT WORKERS (N=400)

Statement	Family Cooperation to Relational Wellbeing	
	Frequency (n)	Percent (%)
Strongly Disagree	6	1.5
Disagree	37	9.3
Neutral	93	23.3
Agree	174	43.5
Strongly Agree	90	22.5
Total	400	100
Mean±SD	3.76±0.953	

(1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

Source: Field Survey, 2022

According to the demonstration of Table 5, about 44 per cent of the respondents have claimed that migrant workers are cooperative to the family members. And the lowest per cent (only 1.5%) of the migrant workers are not cooperative in family matters. According to average study data, the mean is 3.76 with a standard deviation (SD) of 0.953. The majority percentage of the respondents on average have agreed that migrant workers extend cooperative hands to the family members.

SOCIAL NETWORK AND WELLBEING

Social Communication with Neighbours

Migrant workers, through bridging social capital, try to keep social attachment with neighbours as external communication. Social communication always offers to make a peaceful relationship for numerous reasons. For instance, minimising the gender gap based on mutual communication in the community, mitigating the economic class of people in the community, reducing social threats in the community and so forth. It has a linkage between social capital and social wellbeing in a community (Octavianti, 2021).

As far as I know, both migrant workers and neighbours purposefully communicate with each other during post-migration situations. Although there are few barriers faced by migrant workers to communicate with senior community people whenever they are called for. In this regard, migrant workers can reach them by helping other

relatives. Hence, this sort of social communication offers them to mitigate any types of family- or society-related crises in society (KII-03).

Prevalence of Communication with Near Relatives

Communication between migrant workers and their near relatives is necessary for many reasons. Here, bonding social capital helps to carry out such relationships. In terms of building a liveable community, participatory communication and its proliferation among them are considered one of the fundamental requirements. For example, to minimise relationship gaps and communication, to mitigate the economic class of individuals or families, to reduce the unemployment rate, etc. Furthermore, communication between migrant workers and community people has a high impact on family, economy, and a few aspects of the community (Wong & Leung 2008).

Despite the physically far distance from the family, migrant workers always try to stay connected with all family members by continuing bonding relationships and responsibilities for the betterment of their families. Whenever unexpected situations arise during changing jobs or location, migrant workers often face difficulties carrying out such communication with near relatives in reality

(In-depth Interview -07).

TABLE 6. SOCIAL NETWORK OF MIGRANT WORKERS, NEIGHBOURS, AND NEAR RELATIVES

Types of Communication	with Neighbours		with Near Relatives	
	Frequency (n)	Percent (%)	Frequency (n)	Percent (%)
Always	122	30.5	89	22.3
Often	125	31.3	161	40.3
Sometime	87	21.6	84	21.0
Seldom	41	10.3	43	10.6
Never	22	5.5	20	5.0
No Answer	3	0.8	3	0.8
Total	N=400	100%	N=400	100%
Mean±SD	2.31±1.206		2.38±1.136	

(0=No Answer, 1=Never, 2=Seldom, 3=Sometime, 4=Often, 5=Always)

Source: Field Survey, 2022

From the essence of Table 6, there is a status of communication conducted by migrant workers with neighbours. Based on study results, about 60 per cent of the migrant workers communicate with neighbours either "always" or "often". Here, family, friendship, and community networks facilitate macro- and micro-level determinants of migration and its benefits. That means scopes of further migration are likely to open for other community people, including LBFMs of the migrant workers (Boyd 1989).

SOCIAL RELATION AND WELLBEING

Humanitarian Activity

The contribution of remittance from migrant workers is useful in conducting humanitarian activities for numerous aspects of community settings. Especially it works with neighbours of LBFMs of migrant workers with the help of bridging social capital (Savage & Harvey 2007). Figure 7.2 represents that 34.8 per cent of the respondents have agreed that migrant workers often participate in improving humanitarian or social activities, while 24.6 per cent have strongly agreed with the given statement. Another 21.3 per cent of them have disagreed that migrant workers never improve with such activities either. Although about 20 per cent of the respondents have never given an answer. An average role has been played by migrant workers in improving humanitarian or social activities offered by migrant workers to neighbours.

When I was in the UAE (United Arab Emirates) for about 7 years, I returned to Bangladesh about 2 years ago. Before migrating abroad, my family was under poverty. To be honest, I, along with the rest of my family members, passed a horrible economic crisis only for the survival of the family. But, after migrating myself, I had sent money consistently, although I did struggle brutally with things like food, residence, and getting and changing jobs during my early times of migration. In the last 3 years of my migration period, I took part in several humanitarian and social activities. And I donated adequate money to the unprivileged madrasa (a type of recognised educational system in Bangladesh) students for arranging food and education. Actually, I basically tried to send money for that particular purpose 2 times per year (In-depth Interview-03).

Social Mystery

Social integrity is needed for mitigating society-related issues in the community. It is also used for reconstructing social behaviours, norms, and culture (Ruble & Shaw 1991). In terms of having the proliferation of social development activities, social connection with community people is required for creating opportunities, like social welfare, employability, economic welfare and so forth. Figure 7.2 suggests that 28 per cent of the respondents as highest have strongly agreed that migrant workers often play a role in mitigating social problems in the community. Meanwhile, 29 per cent have agreed with the given statement. Another 18.2 per cent of the respondents have disagreed that migrant workers are not able to play such roles in community settings. That means roles have been played in mitigating social problems by migrant workers to neighbours.

Despite the physical distance of migrant workers from family, they often engage in volunteering deeds in society. Therefore, migrant workers have to make a communication bridge between two individuals or families or groups during social interaction. For example, one of my neighbours' families with a migrant member was faced with societal problems about 2 years ago. That time, family did not enable convincing between two groups. Here, migrant workers took interruption on behalf of their family, and then it was easier for us as community social leaders to take initiatives toward solving social problems that arose in the community (KII-01).

Economic Instability

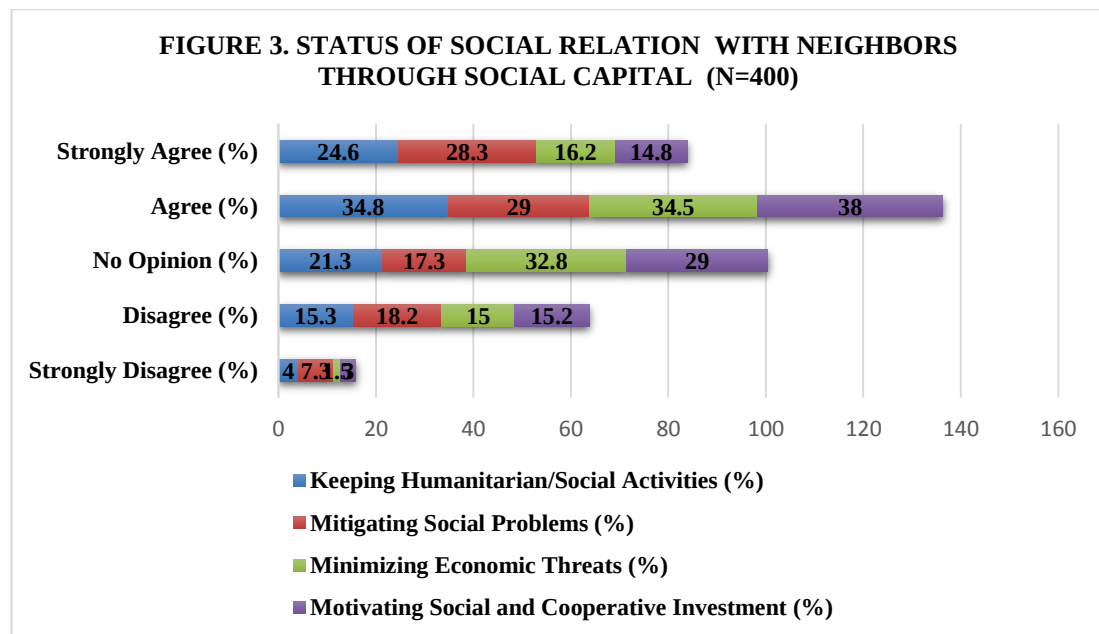
Bridging social capital facilitates keeping social cooperative activities among associate people in the community. In this case, remittance promotes access to the scopes of the economic activities (Rapoport & Docquier 2006). For instance, offering education to all children, improving health facilities, dealing with disaster-led threats, taking initiatives for the underprivileged people, and so forth. Figure 7.2 demonstrates that 34.5 per cent of the respondents have provided an “Agree” opinion. That means migrant workers usually attempt to minimise economic threats by raising social funds in the community, while only 16.2 per cent have given a statement on “Strongly Agree”. In this regard, surprisingly, about 30 per cent of the respondents have not provided their opinion on the given statements. Based on study results, the mean is 3.49, with a *standard deviation (SD)* of 0.984. That means migrant workers have been playing an optimum level of roles toward minimising economic threats in the community.

Look, I have been working at grassroots level on behalf of my organisation for 7 years now. Since then, I have been dealing with migrant workers' families for implementing microfinance and other skill-based projects. However, my observation is that overall economic conditions of the migrant workers' families during pre- and post-migration situations are comparable. To pay off loans, LBFMs almost depend on remittances from the migrated family member. They, on average, enable returning back loans due time. Simultaneously, the contribution of migrant workers in carrying other economic issues like buying daily rice and foods, carrying kids' health and educational expenses, paying housing rent if needed, emergencies, continuing health expenses, etc. is truly worthy for minimising economic threats to their families (KII-07).

Social Collaboration

Remittance from migrant workers contributes to inspiring other persons inside and outside of the family to participate in social and charity activities by donating money in the moment of family or societal needs (Rapoport & Docquier 2006). For instance, starting entrepreneurs like small social businesses, conducting sports or religious events, establishing social or community clubs with purposes like health services, making unity among community people, and so forth.

According to my witness, migrant workers motivate others, who likely want to donate money to social and cooperative activities. Last year, we had to create a fund for the construction of a local mosque, and we proposed one of the migrant workers donate money in this regard. Afterwards, he immediately responded and donated money. Hence, migrant workers exemplified previously in terms of keeping donations and motivating others in social and cooperative activities. (KII-09)



Source: Field Survey, 2022

An overview of Figure 3 shows 38% of the respondents have given an 'Agree' opinion. That means migrant workers play an anchor role to motivate other people in the community who dedicatedly want to invest their money in social and cooperative activities. Another 14.8% of the respondents have strongly agreed with the given statement.

Psychological Assistance and Wellbeing

By exchanging thoughts with neighbours and near relatives, LBFMs, and migrant workers along with corresponding people, psychologically feel comfortable in dealing with numerous aspects of family and community-based activities in everyday life. At this point, bridging social capital particularly works to keep sharing thoughts between them. Because social capital increases the involvement of psychological support and wellbeing for unleashing productivities of individual, family and community settings. In this regard, again, the effect of remittances on psychological integrity and supports is highly correlated, which contributes to improving psychological and mental health (Yang & Wu 2021).

During post-migration situations, family members of the migrant workers spend very stressful times both mentally and psychologically in many ways, like carrying livelihoods, paying debt, caring for children and ageing people, etc. By maintaining regular communication, migrant workers negotiate with the owner of the money sender. In the same way, they enable the mitigation of economic crises through sending money or remittances on a regular basis toward the betterment of the family. (KII-04)

TABLE 7. PSYCHOLOGICAL CARE OF NEIGHBOURS AND NEAR RELATIVES

Statement	Neighbour		Near Relative	
	Frequency (n)	Percent (%)	Frequency (n)	Percent (%)
Strongly Disagree	28	7.0	20	5.0
Disagree	64	16.0	77	19.3
Neutral	97	24.3	78	19.5
Agree	140	35.0	135	33.8
Strongly Agree	71	17.8	90	22.5
Total	N=400	100%	N=400	100%
Mean±SD	3.41±1.157		3.50±1.178	

Source: Field Survey, 2022

The demonstration of Table 7 explains that social capital upholds the promotion of psychological integrity or supports wellbeing. About 50% of the respondents have given either ‘Agree’ or ‘Strongly Agree’ statements. But surprisingly, about 25% of the respondents are confused about giving answers.

RESULTS AND DISCUSSION

Communication between migrant workers and LBFMs is associated with bonding social capital. It works to preserve intimate family relationships and social attachment. This study has found that the majority of the migrant workers are able to communicate with LBFMs during post-migration situations, in particular. A connection with a spouse, children and ageing people of the family is there. For instance, 40% and 45.5% of the migrant workers carry communications with children and ageing members of the family, while 67.7% of the migrant workers, at highest, are connected with their spouse. Likewise, communication with children and ageing people of the family, migrant workers carry an intimate relationship with them.

In terms of maintaining social communication with neighbours and near relatives, bridging social capital contributes to dealing with social issues in the community. Hence, social cooperation offers to enhance bonding networks through participating in humanitarian activities. In this point, people in community settings enable purposive communication and engagement with the help of applying bridging social capital. Among remittance-receiving families, the contribution of migrant workers to both family and social issues is important because they often extend helping hands to mitigate social challenges, such as participating in humanitarian activities within the the community. Besides, 22.5% of the respondents in total have claimed that migrant workers can provide psychological support to the LBFMs and their neighbours through bonding and bridging networks. Therefore, the application of social capital promotes the improvement of family and social attachment on the whole.

CONCLUSION

Social capital is required to conduct internal and external communication through social cooperation and well-being. Particularly, the remittance-receiving families need to keep a

bonding relationship with neighbours and other corresponding people to avail opportunities offered by the community. Again, bonding and bridging social capital facilitate those families in performing and engaging in society-led activities. Hence, it works to improve family and community networks for their wellbeing and betterment.

Policy Implications

As policy implications, this study comes up with a few suggestions to the policymakers. According to the findings of this study, community engagement through social capital is considered a component of conducting/executing social and humanitarian activities. This study might be helpful to the policymakers for undertaking new policies related to the enhancement of family and community networks among the associated stakeholders from district to union levels.

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Income Dynamics and Educational Outcomes of Children in the Informal Sector: Evidence from Tangail, Bangladesh

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ABSTRACT

This study examines the impact of parental income on children's education in the informal sector of Tangail Sadar Upazila, Bangladesh. Data were collected from 162 households through a structured questionnaire survey conducted in July 2022. The United Nations (2005) recommended formula was applied to determine the sample size, and households were selected using random sampling techniques. Findings indicate that parental income has a significant positive effect on children's educational outcomes. In households with monthly incomes below Tk. 8,000, only 28.6% of children are enrolled in school, 71.4% are out of school, and 81.6% are engaged in income-generating activities. In the Tk. 8,000–13,000 income range, 84.6% of children are enrolled, 15.4% are out of school, and 30% participate in income-generating work. All children from households earning above Tk. 13,000 are enrolled in school, with no involvement in paid work. Income changes also strongly influence education: when income increased, 95.4% of children were enrolled, while only 33.3% were enrolled when income declined. A Chi-Square test confirms a statistically significant relationship between parental income change and children's education ($\chi^2(2,384) = 131.881, p < .000$), with Cramer's $V = 0.58$ indicating a strong effect. Parental perceptions reveal that 72.8% value education for overcoming poverty and improving life prospects, while 14.2% cite high costs as a barrier, and 13% consider extended schooling unnecessary. The study concludes that parental income is a critical determinant of children's educational attainment in the informal sector and recommends policies to expand affordable education, provide income support to low-income households, and strengthen vocational training to break the cycle of poverty.

JEL Classifications: I24, J13, D31, J24

Keywords: Parental Income, Children's Education, Informal Sector, Child Labour, Educational Inequality, Household Income Dynamics.

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BACKGROUND OF THE STUDY

Informal Sector and Labour Market Characteristics

The informal sector encompasses activities that evade tax regulations and remain unreported to financial authorities. Broadly, the informal economy comprises all forms of informal employment, which refers to work performed without formal contracts and, consequently, not covered by labour legislation, social protection, or worker benefits. This includes employment within informal, small-scale, unregistered, or unincorporated enterprises, as well as self-employment and wage labour in informal jobs (Chen, 2006). The concept of informality is heterogeneous, as it encompasses diverse forms of economic activity and labour arrangements (Cunningham et al., 2001). Employment opportunities within this sector are often accessible to individuals with limited education or skills, yet they are typically characterized by precarious conditions, including physically demanding, hazardous, and low-quality work (Wijayaningtyas et al., 2022).

Globally, 64% of informal workers are engaged in self-employment, while 36% are employed as wage earners. According to International Labour Organization (ILO) estimates, 61.2% of global employment was informal in 2018, with 51.9% of workers engaged in informal enterprises, 6.7% in the formal sector, and 2.5% in household employment (ILO, 2018). In Bangladesh, the informal sector constitutes a dominant share of the labour market, employing 85.1% of the national workforce, or approximately 51.7 million individuals (BBS, 2020). This proportion has declined slightly over time, from 87.5% in 2010 to 86.2% in 2015 and 2016. Notable gender disparities are evident, with 91.8% of women engaged in informal employment compared to 82.1% of men. Location-specific differences are also pronounced: 77.3% of urban workers (13.1 million) and 88.1% of rural workers (38.6 million) are employed informally. Agriculture remains particularly reliant on informal labour, with 95.4% of workers engaged in informal roles (BBS, 2020). Beyond employment, the informal sector contributes substantially to the economy, accounting for 43% of Bangladesh's GDP (ADB, 2012). Nevertheless, it is marked by income instability, rendering households financially vulnerable and exposing workers to significant economic insecurity (Wijayaningtyas and Lukiyanto, 2018). Informal workers, on average, possess lower educational attainment and earn relatively lower incomes, which limits opportunities for upward mobility.

Importantly, the economic insecurity associated with informal employment extends beyond the immediate labour market and has profound implications for the intergenerational transmission of disadvantage. Household income instability, a defining feature of informal sector participation, directly affects the ability of families to invest in their children's education and future opportunities.

Parental Income, Education, and Child Outcomes

The implications of informality extend to intergenerational outcomes, particularly in relation to education. Parental socioeconomic status strongly influences children's educational attainment. Families with higher financial resources are more likely to provide favourable learning environments and supplementary resources, such as private tutoring, which enhance academic performance (Li and Qiu, 2018). Stable income allows for consistent investment in

children's education, while households experiencing income volatility often make sporadic and uncertain educational investments, thereby negatively impacting child development (Hill et al., 2013).

Empirical evidence highlights that parental income significantly predicts children's academic success and future earnings; children from high-income households are more likely to pursue higher education and secure greater lifetime earnings than those from low-income households (Bloom et al., 2018). Moreover, the long-term trajectory of family income and parental expectations regarding future economic stability shape children's educational outcomes (Gross, 1993). Cognitive skills among adolescents, which are positively correlated with parental socioeconomic status, not only support academic achievement but also serve as protective factors against stress and violence, contributing to better mental health outcomes (Nyarko et al., 2020). High levels of parental education and socioeconomic resources are also associated with the development of advanced cognitive skills, such as problem-solving, initiative-taking, and impulse control (Dubow et al., 2009).

Conversely, income reductions hinder children's educational access, as demonstrated by findings that a 10% rise in family income increases college enrolment by 1–1.4 percentage points (Acemoglu and Pischke, 2001). Persistent declines in household income significantly compromise educational opportunities, thereby reducing long-term earnings potential. Financial barriers, such as difficulties covering tuition fees, uniforms, and textbooks, are particularly acute among families dependent on informal sector income, often preventing regular school attendance and constraining children's development. Furthermore, adverse childhood experiences, which are often exacerbated by financial hardship, exert long-lasting effects on health and social outcomes in adulthood (Pearce et al., 2019).

Taken together, the dominance of informal employment in Bangladesh and its associated income instability significantly constrain families' ability to invest in their children's education. The resulting disparities in educational attainment reinforce cycles of poverty and limit long-term socioeconomic mobility. Thus, the persistence of informality not only shapes labour market outcomes but also perpetuates intergenerational inequality, highlighting the urgent need for policies that expand social protection, stabilize household incomes, and enhance access to quality education for children from informal sector households.

Objectives of the study

In light of the dominant role of the informal sector in Bangladesh's labour market and its associated challenges of income instability, precarious employment, and limited upward mobility, this study seeks to explore the intergenerational implications of informality on education. Given that household income volatility within the informal sector directly constrains families' capacity to make consistent educational investments, understanding the linkage between parental income and children's educational attainment becomes crucial. At the same time, beyond financial resources, the extent to which parents value and prioritize education significantly shapes children's learning opportunities and future prospects. Accordingly, this study is guided by two specific objectives.

Firstly, to examine the relationship between parental income and children's educational attainment in the informal sector.

Secondly, to assess the extent to which parents recognize and value the importance of their children's education.

These objectives are consistent with the broader concern that the persistence of informality perpetuates cycles of socioeconomic inequality through its direct and indirect impact on children's educational outcomes.

LITERATURE REVIEW

Although education offers individuals high payoffs in the long term, scientific research has continuously reiterated that children raised in impoverished conditions achieve less schooling. Limited financial resources, unstable family income, and lack of parental support often constrain their exposure to effective education. These disparities sustain intergenerational inequality by hindering human capital growth and downward socioeconomic mobility. Using data from the UK Labour Force Survey, Chevalier et al. (2013) demonstrate a strong association between early school leaving, parental education, and paternal income. OLS estimate shows that income has rather minor effects. Utilization of simultaneous modelling reveals that it is permanent income rather than regular income which is important to influence the child education. Noble et al. (2015) conducted a comprehensive study involving a batch of one thousand and ninety nine typically developing individuals aged between 3 to 20 years, examining how socioeconomic status, particularly income, impacts brain surface area. The findings revealed a logarithmic relationship between income and brain surface area. Importantly, children originated from lower-income groups exhibited proportionally greater anomalies in brain surface area in response to small variations in income compared to those from higher-income households. Studies show that how much money a family makes can affect their children's future income. For example, children from rich families are more likely to make more money when they get older than children from poorer families (Shea, 2000). In addition, the connection between how much sons and fathers make is strong. According to Solon (1992) and Zimmerman (1992) the connection is about 0.4. Parental income is a good indicator of how well children will do, even after parental education and other measurable qualities are considered (Corcoran et al., 1992; Hill and Duncan, 1987; and others). Parental income is important for children's abilities. But it is more important for children with less educated fathers. However, random changes in income do not play as important role in most families (Shea, 2000).

Through the mediating effects of parents' views and behaviours, Davis-Kean (2005) examined how socioeconomic status (SES) influences children's academic achievement in an indirect manner. The study examined 868 kids between the ages of 8 and 12 who were almost evenly distributed in terms of gender, using data from a cross-sectional nationwide study (436 girls and 433 males). Using structural equation modelling, the study found that parental attitudes and behaviours indirectly influence children's schooling achievement through the mediating effects of socioeconomic factors. Based on the classical liberal theory of equal opportunity and social Darwinism and employing descriptive research design, Andrew et al. (2014) found that there was an insignificant but negative correlation between

the parents' occupation and their ability to fund their children's education. Although they found a significant and positive correlation between formal education levels of parents and access to education for their children.

The way poverty affects children's development may vary depending on when it occurs in childhood and adolescence. Early childhood is a key time for the brain to establish fundamentally important neuronal functions and structures that will impact future cognitive, social, emotional, and health consequences, according to emerging data from studies on humans and animals (Sapolsky, 2004). Whether income augmentation of poor parents improves the life and years of schooling of their children, the study of Duncan et al. (2014) found positive feedback. The study concludes that the children whose families experience income augmentation, performs better in school and takes the challenge of completing more years of schooling. Yeung et al. (2002) used PSID data of 753 children to examine impacts of income level vs income instability on children's development. They examined test scores achievement and index of behavioural problem connecting through funding and family process pathways. They found that a significant portion of the association between children's W-J scores and family income can be explained by the family's ability to invest in providing a supportive learning environment for children; whereas maternal emotional distress and parenting practices are the most important mediators of the family income-children's BPI scores association. Parents usually think that child care is an important way to help their children learn and interact with other kids (Chaudry et al., 2011). But parents who do not make a lot of money often have jobs that are tough and not stable, and these jobs do not pay much. Because of this, they have less power to make sure children are well taken care of. So their children are more likely to stay at home without an adult or go to day-care that is not high quality (Heinrich, 2014). There is also more research that shows that families who have less money can have negative effects on their children.

Literature shows many variables other than income to impact education, development, cognitive and other socio-economic outcomes. Gershoff et al. (2007) expanded this understanding by incorporating material hardship into models assessing income's impact on child development, revealing distinct pathways through which income and material hardship influence cognitive and social-emotional outcomes via parental stress and investment. These findings underscore the importance of addressing both financial and material hardships in developing policies aimed at enhancing child development outcomes.

Some recent research focuses on the important role of parental time in children's cognitive and social development. Kornrich and Furstenberg (2013) found that the time and quality that parents spend with their offspring are critical for cognitive and social skills. The literature has indicated that the mechanism of parental time allocation can have direct effect on important outcomes, such as school outcomes and socio-emotional skills. Additionally, the difference between the time and quality parents spend with their children can bring to the unequal formation of human capital, further contributes to intergeneration mobility. Li and Zhong (2024) found that when fathers allocate their time more equally across the different stages of child development, inequalities in both cognitive and health outcomes by adolescence can be greatly reduced. Their study reported a 22 percent decline in cognitive disparities and a 49 percent decline in health disparities. This highlights the crucial role of

paternal involvement in influencing inequalities in children's human capital development. In parallel, prior research shows that need-based financial aid plays an important role in improving college persistence and degree completion for students from low-income backgrounds. An experiment was done in 13 public universities in Wisconsin. It showed that giving more grant aid can help more people finish a bachelor's degree in 4 years. It greatly reduced income inequality in colleges and universities (Goldrick-Rab et al., 2016).

While parental income is a significant determinant of children's educational success, a comprehensive understanding necessitates considering a range of interrelated factors, including parental education, beliefs, behaviours, as well as school and teacher quality. Regarding Bangladesh, the existing literature has little support on how income from the informal sector affects child education. This particular study connects these variables of interest for the case of the Tangail district of Bangladesh through a primary data survey from 162 household heads.

METHODOLOGY

Method of the Study

To achieve the objectives of the study, data were collected from 162 households engaged in the informal sector in Tangail Sadar Upazila using a structured questionnaire. The research relied entirely on primary data, obtained through face-to-face interviews conducted in July 2022.

Sample Size

The formula recommended by the United Nations (2008) in Designing Household Survey Samples: Practical Guidelines was used to determine the sample size for conducting the primary research for household surveys (United Nations Statistics Division, 2005). Random sampling was used to select 162 informal sector households whose household heads were interviewed. Data was checked for accuracy, tabulated and analysed using descriptive statistics. Results are presented using figures and diagrams. The following formula is used to determine the sample size:

$$n_h = (z^2) (\alpha) (1-\alpha) (d) (h) / (t) (\beta) (e^2) \quad (1)$$

The explanation of the parameters shown in equation 1 is given in Table 1.

TABLE 1. EXPLANATION OF THE PARAMETERS IN EQUATION 1

Name of the Parameter	Explanation
n_h	Represents the sample size of households selected for the survey
z	Refers to the desired confidence level
α	Denotes the estimated value of a key indicator to be measured in the survey
d	Represents the sample design effect.

- h Serves as a multiplier to account for the anticipated non-response rate.
- t Indicates the proportion of the total population represented by the target population, upon which the parameter α is based.
- β Refers to the average household size, i.e., the number of persons per household.
- e Denotes the margin of error.

Stratified random sampling was done, where Tangail Sadar Upazila was stratified into six strata. For each stratum, 27 households working in the informal sector were randomly chosen for a total of 162, as the sample size. The reason for the selection of the study area was the presence of a sufficient number of respondents and comfortable communication despite differences in places. The map of the selected areas is shown in Fig. 1.

Study Location

FIGURE 1. MAP OF TANGAIL DISTRICT (LEFT PANEL), MAP OF TANGAIL SADAR UPAZILA (RIGHT PANEL)



RESULTS AND FINDINGS

Occupation and Livelihood of Informal Sector Households

The surveyed households are engaged in diverse occupations within the informal sector, including rickshaw pulling, driving (pickup and auto), street vending, hawking, day labor, tailoring, construction work, carpentry, weaving, restaurant work, electrical services, vehicle mechanics, barbering, laundry services, shop-keeping, appliance repair, computer typing, mobile phone repair, craftwork, and farming.

Monthly Income and Educational Expenditure

Table 2 shows the distribution of household monthly income alongside average household expenditure on children's education. Among the 162 household heads, 24 (14.8%) earn less than Tk. 8,000 per month, with all spending less than Tk. 1,500 on education. The majority, 125 (77.2%), earn between Tk. 8,000 and Tk. 13,000, of which 108 (86.4%) spend less than Tk. 1,500, while 17 (13.6%) spend between Tk. 1,500 and Tk. 3,000. Only 9 households (5.6%) earn between Tk. 13,000 and Tk. 18,000, with most (66.7%) spending Tk. 1,500–3,000. Finally, 4 households (2.5%) report incomes above Tk. 18,000, all of whom spend over Tk. 3,000 on education.

TABLE 2. MONTHLY INCOME AND EDUCATIONAL EXPENDITURE

		Monthly average expenditure on children's education per household head (BDT)			Total
		Less than 1500	Between 1500 and 3000	More than 3000	
Monthly Income	Less than 8000	24	0	0	24
Range (BDT)	Between 8000 and 13000	108	17	0	125
	Between 13000 and 18000	1	6	2	9
	More than 18000	0	0	4	4
Total		133	23	6	162

Source: Author's Calculation

Parental Income and Children's Enrolment

Table 3 reveals that among 384 children aged 4–24 in surveyed households, 276 (72%) are currently studying, while 108 (28%) are not engaged in education. In families earning below Tk. 8,000, only 28.6% of children are enrolled, compared to 84.6% in families earning Tk. 8,000–13,000. Enrolment reaches 100% for children from households earning more than Tk. 13,000.

TABLE 3. PARENTAL INCOME AND CHILDREN'S ENROLLMENT

		Not Studying	Studying	Total
Parental income range (BDT)	Less than 8000	70	28	98
	Between 8000 and 13000	38	209	247
	Between 13000 and 18000	0	25	25
	More than 18000	0	14	14
Total		108	276	384

Source: Author's Calculation

Parental Income and Children's Work Participation

Table 4 reveals that children from low-income households are heavily involved in income-generating activities. Among the 98 children in households earning less than Tk. 8,000, 81.6% participate in such activities. This proportion declines to 30% among children from households earning Tk. 8,000–13,000, and no children are involved in paid work in households with incomes above Tk. 13,000.

TABLE 4. PARENTAL INCOME AND CHILDREN'S WORK PARTICIPATION

		Involvement of children in income-generating activities		Total
		Not Involve	Involve	
Parental income range (BDT)	Less than 8000	18	80	98
	Between 8000 and 13000	173	74	247
	Between 13000 and 18000	25	0	25
	More than 18000	14	0	14
Total		230	154	384

Source: Author's Calculation

Parental Income and Access to Tutoring

Table 5 indicates sharp inequalities in access to private tuition. In households earning below Tk. 8,000, no children receive extra coaching. In the Tk. 8,000–13,000 range, 24.3% of children benefit from tuition. The share rises sharply in households earning Tk. 13,000–18,000 (72%) and above Tk. 18,000 (71.5%).

TABLE 5. PARENTAL INCOME AND ACCESS TO TUTORING

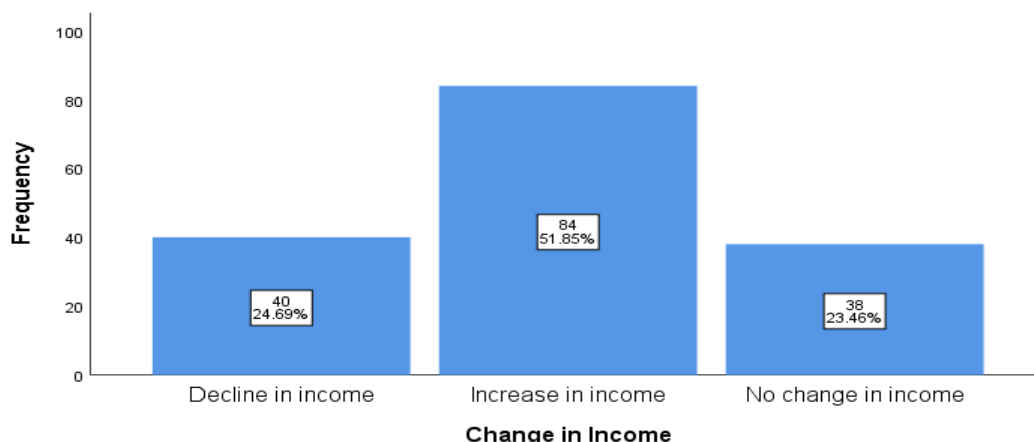
		Extra tuition or coaching classes		Total
		May not able to get	May able to get	
Parental income range (BDT)	Less than 8000	98	0	98
	Between 8000 and 13000	187	60	247
	Between 13000 and 18000	7	18	25
	More than 18000	4	10	14
Total		296	88	384

Source: Author's Calculation

Change in Household Income

Among surveyed households, 84 (51.9%) reported an increase in income in recent years, 40 (24.7%) reported a decline, and 38 (23.5%) reported no significant change (Figure 2).

FIGURE 2. CHANGE IN INCOME OF HOUSEHOLD HEADS



Source: Author's Calculation

Parental Income Dynamics and Educational Outcomes

We define income dynamics as the directional change in household income over time, capturing whether parental income has increased, decreased, or remained unchanged in recent years. This variable reflects short-term fluctuations in household economic conditions—particularly relevant for informal sector workers whose earnings are often unstable.

The measurement was conducted using self-reported retrospective data from household heads, collected through survey questions such as:

“Has your household income increased, decreased, or remained the same compared to the last three years?”

Income changes strongly affect children’s education.

- **Increased Income:** Among 166 children whose parents’ incomes increased, 95.4% are enrolled, with only 6.0% involved in paid work. Roughly half (51.8%) access extra tuition (Table 6).
- **Declined Income:** Among 114 children in households with declining income, only 33.3% are enrolled, while 66.7% are out of school. Notably, 89.5% of non-enrolled children are engaged in income-generating activities (Table 7)

**TABLE 6. PARENTAL INCOME DYNAMICS AND EDUCATIONAL OUTCOMES
(INCREASED INCOME CASE)**

		Not Studying	Studying	Total
Parental income range (BDT)	Between 8000 and 13000	8	127	135
	Between 13000 and 18000	0	25	25
	More than 18000	0	14	14
Total		8	166	174

Source: Author's Calculation

**TABLE 7. PARENTAL INCOME DYNAMICS AND EDUCATIONAL OUTCOMES
(DECREASED INCOME CASE)**

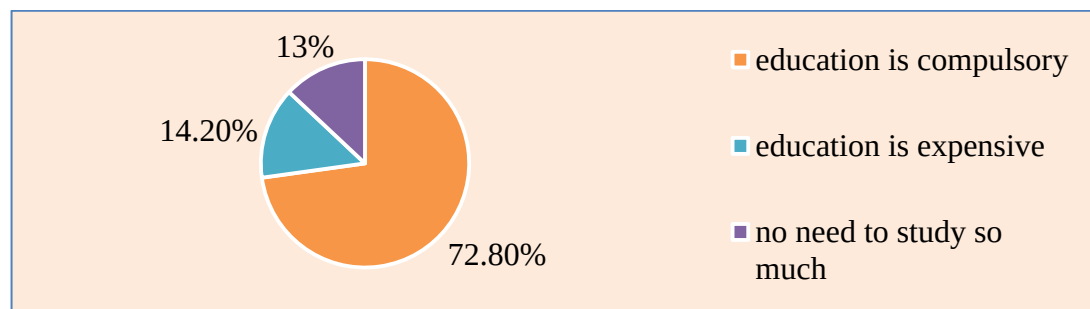
		Not Studying	Studying	Total
Parental income range (BDT)	Less than 8000	70	28	98
	Between 8000 to 13000	6	10	16
Total		76	38	114

Source: Author's Calculation

Statistical Association

A Chi-Square test of independence confirms a strong and significant relationship between parental income change and children's education ($\chi^2 (2,384) = 131.881, p < .000$). Cramer's $V = 0.58$ indicates a large effect size.

Parental Perceptions of Education

**FIGURE 3. PARENTAL PERCEPTIONS OF EDUCATION**

Source: Field Survey (2022)

Survey responses suggest that 72.8% of parents' view education as vital for escaping poverty, achieving a better quality of life, and attaining respect in society. Conversely, 14.2% cite high educational costs as a barrier, while 13% believe prolonged study is unnecessary, preferring children to work after a certain age (figure 3).

CONCLUSION

This study has examined the impact of parental income on the education of children in the informal sector of Tangail Sadar Upazila. Using household- and child-level data, the findings show that income is a major determinant of school enrolment, educational spending, and children's involvement in income-generating activities. The results reveal sharp differences in educational outcomes across income groups. In households earning less than Tk. 8,000 per month, only 28.6% of children are currently enrolled in school, while 71.4% remain outside the education system. Many of these children are also engaged in income-generating work, with 81.6% contributing to household earnings. By contrast, in households with monthly incomes between Tk. 8,000 and Tk. 13,000, school enrolment increases to 84.6%, and the proportion of children working falls to 30%. The most positive outcomes are seen in families earning above Tk. 13,000, where 100% of children are enrolled and none are involved in paid work. The study also shows how changes in household income affect education. Where household heads reported rising incomes, 95.4% of children were enrolled in school, and only a small fraction (6.0%) were involved in income-generating activities. Furthermore, about half of these children had access to private tutoring. However, in households experiencing a decline in income, only 33.3% of children were enrolled in school, while 66.7% were out of school. Among those not studying, nearly 90% were engaged in income-generating work. These results highlight the vulnerability of children's education to income shocks. A Chi-Square test confirmed a statistically significant relationship between changes in parental income and children's education, with a strong effect size. This provides robust evidence that income dynamics directly shape educational opportunities in the informal sector. The study also explored parents' perceptions of education. A majority (72.8%) emphasized that education is essential for overcoming poverty, improving quality of life, and ensuring future social respect. However, 14.2% considered education too expensive, while 13% felt prolonged study was unnecessary, preferring children to work after a certain age. In conclusion, parental income strongly influences children's schooling outcomes in the informal sector. Low income not only reduces enrolment but also increases child labour and limits access to additional educational support. Rising income, on the other hand, significantly improves enrolment, reduces work participation, and expands access to tutoring. These findings underscore the importance of addressing income inequality to ensure better educational opportunities for children in the informal sector.

POLICY RECOMMENDATIONS

To improve educational outcomes for children in the informal sector, particularly from low-income households, the following measures are recommended:

1. Expand access to affordable and quality education through targeted subsidies, fee waivers, and provision of educational materials.
2. Introduce income support programs for low-income households to reduce financial barriers and enable greater investment in children's education.
3. Enhance vocational training opportunities for older children in the informal sector, equipping them with practical skills for better employment and upward mobility.

4. Promote partnerships with NGOs, community organizations, and local businesses to expand support networks for children's education.
5. Strengthen data collection and monitoring systems to track the educational progress of children in the informal sector and inform evidence-based policy interventions.

LIMITATIONS OF THE STUDY

Despite its contributions, this study has several limitations that should be acknowledged. First, the age range of children (4–24 years) included in the sample is relatively broad, encompassing multiple stages of social, emotional, and cognitive development—from early childhood to young adulthood. These age groups experience different family, school, and work environments, and therefore, applying a uniform questionnaire across all ages may limit the precision of responses and could introduce measurement bias. Future studies may consider narrowing the age range or analysing separate subgroups (e.g., 4–9, 10–14, 15–19, and 20–24 years) to capture stage-specific variations more accurately.

Second, while the inclusion of access to private tutoring added valuable insight into educational inequality, the present study did not explore in depth the underlying causes of tutoring disparities, such as differences in household income, parental attitudes toward education, or the local availability of tutors across socioeconomic strata. These factors could provide a richer understanding of educational investment behaviours and should be examined in future research.

Third, the study's analysis of children's work participation does not distinguish between hazardous and non-hazardous work, nor between part-time and full-time engagement. Such distinctions are important for assessing the severity and implications of child labour, particularly within informal sector households. Expanding this dimension would strengthen the policy relevance of future analyses.

Finally, the study does not explicitly address gender-based differences in educational and labour outcomes among children in informal-sector households. Since boys and girls may experience different social expectations and economic pressures, future research could incorporate gender-disaggregated analyses to better capture these dynamics and enhance the understanding of intra-household inequality.

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Career Awareness and Institutional Challenges Faced by Students with Physical Disabilities in Tertiary Education: A Micro-Level Study of First-Year Students at Rajshahi University

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ABSTRACT

Students with disabilities repeatedly face significant challenges throughout their life in all possible aspects. While some have been able to gain admission into the university system, many are still unaware of career options as well as the supportive policies extended to them by the government, non-governmental organizations (NGOs), and universities. This knowledge gap weakens their chances to potential career growth. This study concerns itself with the level of career awareness among first-year students with disabilities at Rajshahi University. The study covers their career awareness level, career information sources, challenges, and expectations, followed by recommendations on policies. Data were collected from 10 varied participants (in terms of gender, discipline, and type of disability) through a detailed structured questionnaire. The analysis was done using Microsoft Excel and SPSS. The findings revealed that the average level of career awareness was 58 percent on five core indicators. Half of the respondents depended on teachers mainly for career guidance. Notably, 70 percent did not know about the role of NGOs in supporting career development, implying an absence of institutional linkage. Moreover, 90 percent showed interest in attending training on entrepreneurship and freelancing. The research, therefore, recommends enhancing career awareness programs in order to expedite career growth of physically-challenged students at tertiary level and strengthening partnerships between universities and NGOs to assist students with disabilities for career guidance.

JEL Classifications: I21, J24

Keywords: Career Awareness, Students with Disabilities, Tertiary Education, Career Guidance.

1. INTRODUCTION

Students with disabilities (SWDs) in Bangladesh have huge obstacles to access and perform in higher education and other labour markets related to higher education. Although the

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Persons with Disabilities Rights and Protection Act was enacted in 2013 to ensure equal access to education and employment opportunities for individuals with disabilities, challenges remain (Mamun et al., 2024). About BBS, around 40.29% of persons with disabilities are enrolled at different levels of education; only 2.72% have completed their higher secondary or postsecondary education as per (The Business Standard, 2023). The difference speaks of the systemic barriers that lash the academic progress of SWDs.

Students with disabilities face various challenges associated with infrastructural barriers, lack of accessible learning materials, and inadequate support services in higher education institutions (HEIs). A study by Alam and Kabir (2021) across four public universities in Bangladesh revealed that many SWDs use adaptive strategies like the use of assistive devices and peer assistance. Unfortunately, these coping mechanisms usually do not add up to the need for full institutional support.

First-year students on disability at Rajshahi University are torn between possible major career paths for themselves in life due to the absence of specific guidance on available choices. Career development matters for these students because it turns out to be a straightforward indicator of their future success. Nonetheless, research shows that these students are often excluded from career planning programs and a good number of them hardly find jobs after graduation (Shaw & Dukes, 2001). In fact, students with disabilities have not benefited anywhere across the globe. Postsecondary institutions have barriers, like limited physical access barriers and a lack of inclusive career counselling services, and they have very low collaboration between universities and external organisations' efforts (World Bank, 2013). This also indicates from UNESCO that disabled learners have never attained required career resources which relate very much to the excellent development of careers. The lack in access to these resources can be too vital to be seen as a significant factor in entering the labour market negatively (Burgstahler, 2015).

This report commissioned by BRAC identifies different levels of career awareness among the first ten physically challenged students at Rajshahi University (session: 2023-2024). This is aimed at identifying core sources of career-related information, the nature of institutional hindrances related to career awareness, and students' inclination toward various skill-based programs offered by NGOs. The study seeks to advocate for action-oriented policies for BRAC to strengthen BRAC career services for students with disabilities and create an inclusive and enabling environment at Rajshahi University and similar institutions based on international frameworks such as the United Nations Convention on the Rights of Persons with Disabilities (CRPD).

2. LITERATURE REVIEW

Career development for students with disabilities has gained increasing scholarly attention under the framework of inclusive higher education. Although many researchers argue that simply getting students with disabilities access to institutions will not make them employment-ready unless structured career support is provided, Lindsay, Cagliostro, and Carter (2018a) provided empirical evidence from a U.S. study that career services informed by disability needs-involving individualized counselling and workplace mentoring-

significantly assist students' transition from university to regular employment. Their results show that interventions must be tailored in relation to the varying assessments of students with disabilities.

Systematic analyses of higher education systems all over the world affirm that the institutional mechanism for career preparation is often disjointed. Moriña, Cortés-Vega, and Martínez-Vázquez (2022) reviewed inclusive-education practices across developing universities and found that three persistent weaknesses prevail: disability disclosure, professional identity formation, and structured poisoning within the institution for career guidance. They concluded by affirming that career development often has a marginal consideration in the inclusion policies of universities.

Another viewpoint focuses on labour-market inclusion. Lindsay, Cagliostro, Albarico, Mortaji, and Kessler (2018b) carried out a systematic review showing unmistakable organizational advantages-gain such as innovation and productivity-by hiring persons with disabilities. This reinforces that an investment in career development programs at the university level pays dividends for both society and institutions.

Nonetheless, gaps in the various disciplines of higher education indicate that there are still significant hurdles to translation. Powell, Felder, and Mara (2023) observed that disability studies within academia remain limited and that systemic ableism continues to affect professional growth and career progression. Their work points to the need for universities to reassess structural norms and develop equitable pathways from education to professional employment. These studies illustrate global advances in inclusion but nonetheless reveal persistent deficits in early career awareness and development for students with disabilities.

While the international literature illustrates the significance of inclusive career services, micro-level evidence from developing countries, particularly Bangladesh, is still very scarce. Most of the existing research focuses on accessibility and policy rather than on the career-awareness experiences of first-year students with physical disabilities. In addition, there is a scant amount of empirical work on the type and extent of collaboration between NGOs and universities in relation to career information and skills training. Therefore, this study seeks to fill that gap and examine career awareness, information sources, institutional challenges, and expectations of first-year physically challenged students at Rajshahi University.

3. Research Questions

- (a) To what extent first-year students with disabilities at Rajshahi University are aware of their career?
- (b) What are the primary sources of career-related information for these students?
- (c) What are the key institutional challenges faced by students with disabilities in pursuing career development within the university?
- (d) To what extent these students are interested in acquiring career-related skills through NGO-led training or development programs?

2. Key Objectives

- To examine the level of career awareness among first-year students with disabilities at Rajshahi University.

- To identify the primary sources from which these students receive career-related information and guidance.
- To explore the institutional challenges faced by students with disabilities in pursuing career development within the university.
- To assess the students' interest in acquiring career-related skills through NGO-led training or development programs.
- To recommend short-term actionable policy to bridge the gap in career support focusing on enhancing career support for students with disabilities in higher education.

3. METHODOLOGY

3.1. Study Design

This exploratory study employs a cross-sectional quantitative analysis covering 10 physically-challenged first-year university students of Rajshahi University.

3.2. Study Population and Sample

The study population comprised approximately 70 first-year students with disabilities enrolled in the 2023-24 academic session. From this population, the researcher randomly selected 10 students to participate in the survey.

3.3. Data Collection

Data were collected through a structured questionnaire.

3.4. Data Analysis

All statistical analyses will be conducted using appropriate statistical software (**SPSS & Excel**), with meticulous attention to the survey. This will involve incorporating primary sampling units (PSUs) and stratification to ensure the representativeness of the findings and the accuracy of variance estimation.

4. FINDING AND ANALYSIS

In this section of this report, the findings of the collected information from the participants will be analysed with interpretation.

4.1. Demographic Information of the Respondents

The study encompassed 10 first-year students with disabilities at Rajshahi University. Their demographic characteristics are summarized as follows:

Gender		
	N	%
Female	4	40.0%
Male	6	60.0%

Gender Distribution

Among the 10 respondents, 60% were male (n=6) and 40% were female (n=4). This shows a slightly higher representation of male students among the physically challenged fresher cohort.

Type of Disability		
	N	%
Physical	7	70.0%
Visual	2	20.0%
Others	1	10.0%

Type of Disability

Most of the subjects reported their disabilities as physical (70%, n=7), in the second place is from students facing visual problems (20%, n=2), whereas only one respondent (10%) categorized it under "Other." This distribution gives emphasis that students with physical disabilities form the major group that represents the university's first-year disabled student population.

Faculty		
	N	%
Science	2	20.0%
Arts	2	20.0%
Social Science	4	40.0%
Business	2	20.0%

Faculty Affiliation

Students from a variety of faculties were enrolled, with the Faculty of Social Science having the highest number of participants (40%, n=4). Equal numbers of participants came from the Faculty of Science (20%, n=2), from the Faculty of Arts (20%, n=2), and from the Faculty of Business (20%, n=2). The spread of this sample reflects a moderately balanced distribution of students with disabilities across major academic disciplines at Rajshahi University.

Demographic Information of the Respondents				
		Gender	Type of Disability	Faculty
N	Valid	10	10	10
Mean			1.50	2.60
Std. Deviation			.972	1.075

Variance		.944	1.156
Range		3	3
Minimum		1	1
Maximum		4	4

Descriptive Statistics

The descriptive data showed variability across the demographic variables:

Gender average is 1.50 (meaning presumably 1=Female and 2=Male), showing a slight male dominance. Mean disability types scores is 2.60, indicating that most students are clustered somewhere between physical disability type and visual disability type.

Mean faculty score being 2.60, suggests dispersion across the various faculties, concentrating on middle ranges, probably Social Science and Arts. Standard deviations and variances for type of disability and faculty indicate moderate variability across the sample and the range (maximum-minimum=3) corroborates a diverse range of responses across all categories.

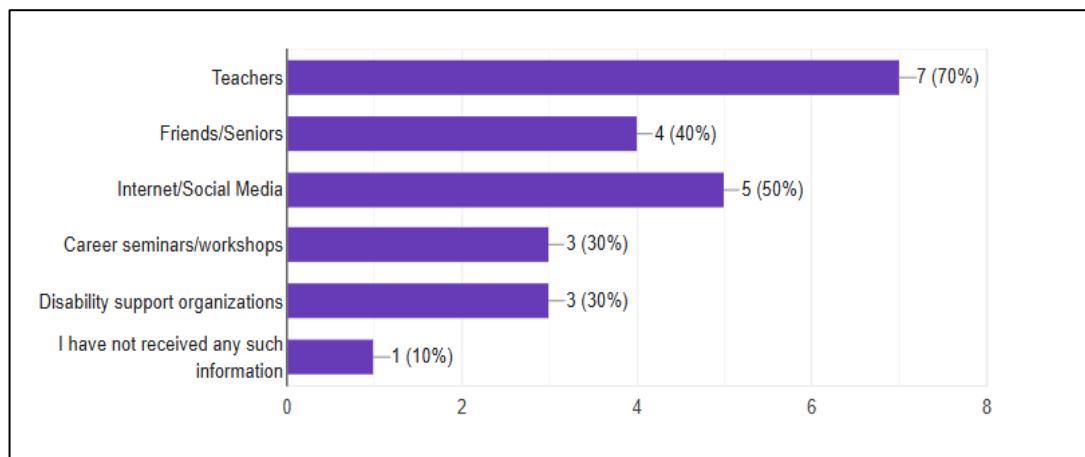
4.2. Career Awareness Level Analysis

Career Awareness Level			
	Responses		Percent of Cases
	N	Percent	
1. Heard of career planning activities.	10	34.5%	100.0%
2. Aware of career pathways related to major.	9	31.0%	90.0%
3. Prepared CV/resume with support.	3	10.3%	30.0%
4. Know organizations supporting job placements for students with disabilities.	4	13.8%	40.0%
5. Received career information tailored to disability needs.	3	10.3%	30.0%
Total	29	100.0%	290%
Average of Total			58%

The chart shows that 34.5% of the respondents had heard of some career planning activities, while 31% were aware of at least one job pathway concerning their major. Conversely, only 10.3% had prepared a CV with some help, and a similar percentage received career information that catered to their disability needs.

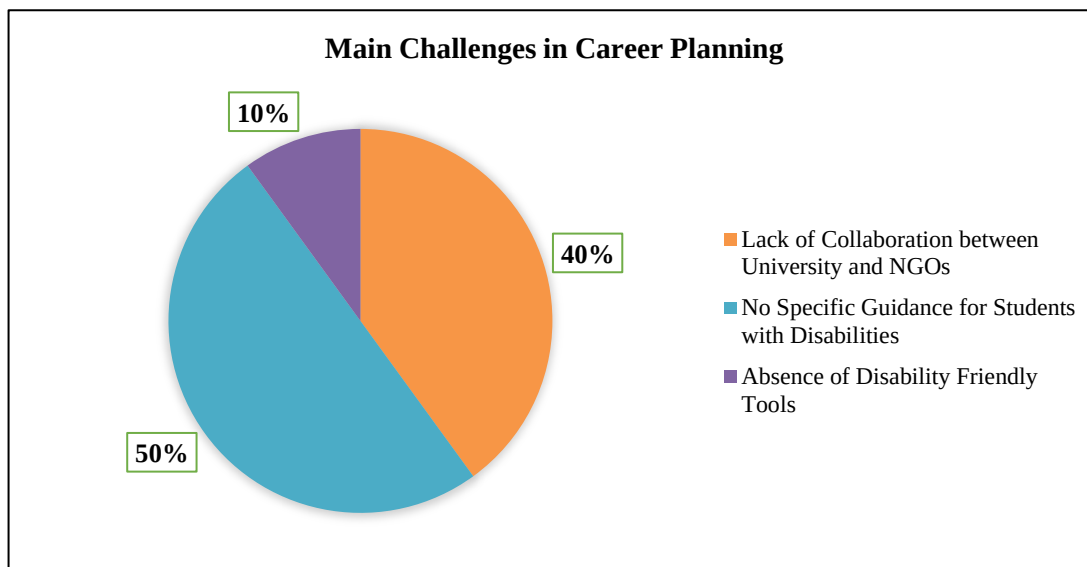
According to the reporter, all five statements in the chart indicate career awareness. These questions required a Yes or No answer, after which multiple response analysis was conducted with SPSS. The total of the percentages obtained from the responses to these questions shows that the overall career awareness level of respondents will be 58%.

4.3. Sources of career-related information



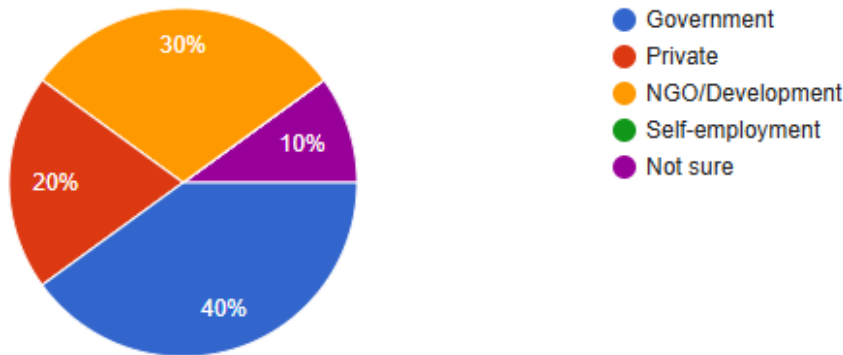
The chart reveals that most students with disabilities turn to their teachers (70%) and the internet (50%) for help with their career choices. Their friends and seniors (40%) also provide a lot of assistance. However, few opt for workshops or disability support services (30%); and only one student declares that he received no information at all about careers.

4.4. Main Challenges in Career Planning



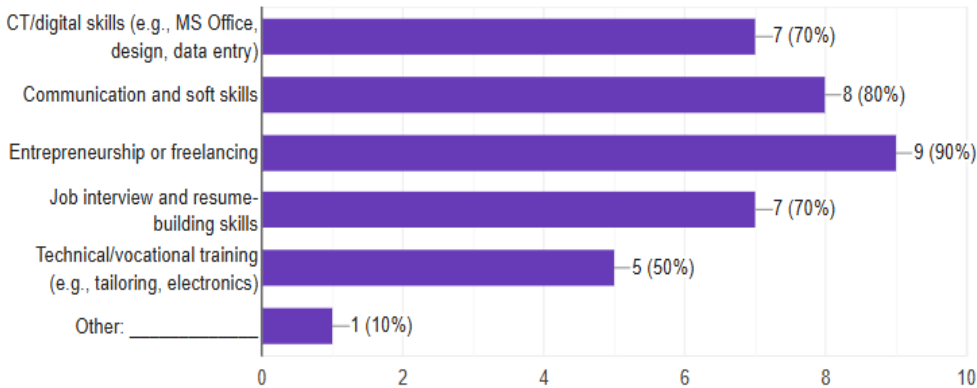
Half of the students with disabilities at Rajshahi University feel they don't get enough support, and many also identify a gap in teamwork between the university and NGOs. While physical access seems to be improving, there is still a need for more thoughtful, inclusive planning.

4.5. Preferred Career Track



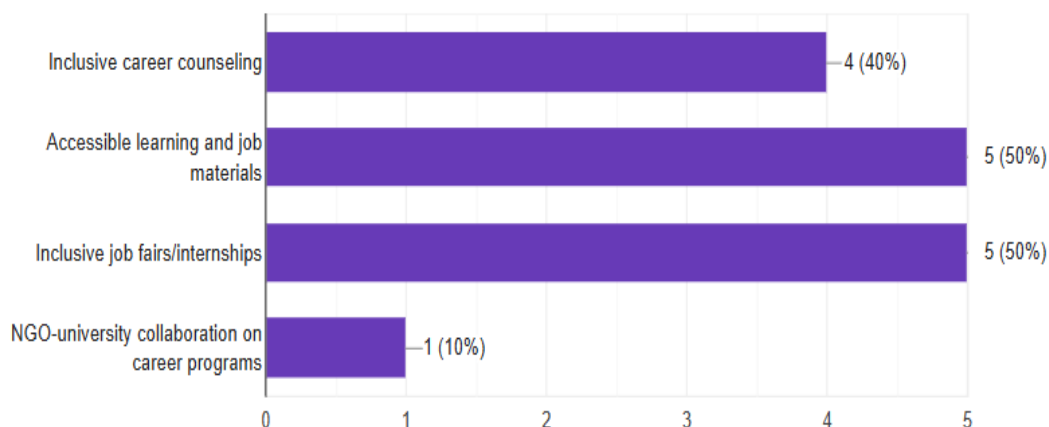
The chart categorizes the career preferences and shows that the majority (40%) prefer working in government sectors, followed by 30% leaning towards NGO/Development, 20% opting for private sector jobs, and 10% favouring self-employment.

4.6. Expected Skill-based Programs from NGOs



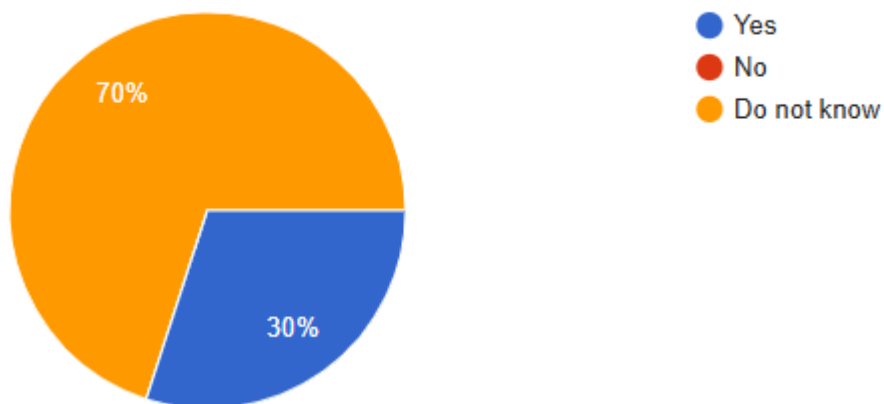
The bar chart illustrates the frequency of responses for various skills that respondents have prioritized. This chart indicates that the top skill preferred by respondents is Entrepreneurship or Freelancing (90%), followed by Communication and Soft Skills (80%). The least emphasized skill is Technical/Vocational Training (50%) and Other (10%).

4.7. Participants' preferred Career Development Support



It is clearly seen that the expectancy of internship opportunities is low (50%) among the respondents. Besides, accessible learning for job materials and **inclusive career counselling services** are also recommended by 50% and 40% of the respondents, respectively.

4.8. Participants' Belief Regarding the Success of NGOs in Inclusive Career Development



Unfortunately, 70% of the respondents are not sure about the role of the NGOs in providing the necessary support to ensure that career development is inclusive while the remaining 30% are sure about the capacity of an NGO in making career development inclusive.

5. DISCUSSION AND RECOMMENDATION

Based on the findings of this report, several key issues can be addressed for future interventions.

- In Figure 4.3, half of the students with disabilities at Rajshahi University report that they do not receive sufficient tailored support. Additionally, many perceive a gap in collaboration between the university and NGOs. While physical accessibility has shown improvement, there is still a need for more inclusive and thoughtful planning to address the remaining challenges.
- In the very next figure, the 90% students' preference on entrepreneurship or freelancing opportunities urges that BRAC could launch such training programs in her next project to facilitate this opportunity for the students with disabilities in Rajshahi University.
- The last figure (4.7) shows a discernible fact that students with disabilities are still not sure of NGOs capacity or technical support mechanism for inclusive career development. BRAC can facilitate a bunch of workshops and seminars in collaboration with Rajshahi University to inform them of the offered opportunity.

So, through the implementation of these recommendations, University and NGOs can collaborate the career support for the first-year students with disabilities at Rajshahi University and providing them with much better opportunities for career development and making a successful future.

6. CONCLUSION

This shows severe gaps in career awareness of current first-year disabled students at Rajshahi University. Although students reach university, most have little guidance, institutional support, and awareness of the career development projects organised by the NGO. This needs inclusive planning, targeted training programs, and stronger collaboration between universities and NGOs. These are the problems that empower students with disabilities to make wise decisions regarding their careers. It will help shape the good futures at stake when immediate action is taken by stakeholders like career counselling cells or NGOs.

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Electoral Authoritarianism and Violence: Mapping Electoral Violence in Bangladesh, 2014–2015

Sadia Afrin¹

ABSTRACT

In 2014 and 2015, Bangladesh experienced widespread electoral violence, boycotts, opposition exclusion, partisan administration, criminalisation, state-led repression, and authoritarian tendencies, which were marked by a new type of violence and never before has there been in the history of Bangladesh politics such a prolonged, continuous blockade-hartal programme related to elections. This paper analyses the trends and dynamics of electoral violence in Bangladesh during 2014–2015. Using data from national newspapers, the paper maps 4,518 election-related violence incidents and examines how these events reflect deeper political transformations. Instead of merely quantifying violent episodes, the study interprets how electoral violence operates as a mechanism of control, coercion, and regime durability within an electoral authoritarian framework. The findings reveal that the strategic use of violence by ruling elites not only suppresses opposition participation but also legitimises authoritarian rule under the excuse of democratic elections. By connecting empirical trends to theories of electoral authoritarianism, this study contributes to understanding how democratic institutions are instrumentalised for autocratic ends. It concludes that strengthening intra-party democracy, reducing criminalisation of politics, and depoliticising state institutions are essential to breaking the entrenched cycle of electoral violence in Bangladesh.

JEL Classifications: D72, D74

Keywords: Career Election, violence, electoral violence, electoral authoritarianism

INTRODUCTION

Elections are often seen as the heart of democracy. They give citizens the chance to select their representatives and hold them accountable. However, in many developing democracies, elections have become a means of conflict and pressure instead of competition and agreement. This paradox, in which democratic practices coexist with authoritarian tactics, has attracted significant attention in comparative politics and studies of democratisation. Scholars like Schedler (2006) and Levitsky and Way (2010) refer to this situation as

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electoral authoritarianism. In these regimes, the appearance of democracy is maintained through regular elections, but its real meaning is undermined by manipulation, repression, and violence. Since 2013, political violence in Bangladesh has received increasing scholarly and public attention, especially because of its strong connections to electoral events. These incidents of violence are not isolated; they have become a part of the political culture of Bangladesh. This violence manifests in both the pre- and post-election periods and spans from the local to the national level. The electoral cycles of 2014 and 2015 were a crucial turning point. During these years, widespread violence, exclusion of the opposition, and partisan control of state institutions revealed the weakness of democratic practices. The events of these years highlighted that electoral competition in Bangladesh had transformed from a method of representation into a source of conflict. Coercion, intimidation, and state repression were employed to maintain political power. Thus, the electoral violence during this time should not be viewed simply as a breakdown of law and order; it reflects the country's deeper shift toward an electoral authoritarian system.

In the first quarter of 2015, around 262 people were killed and, 5381 were injured in 1859 political violent events in Bangladesh. Moreover, local elections also became partisan in 2015 (on October 12, 2015 cabinet approved the drafts that allowed political parties to nominate candidates in local elections) which brought a significant amount of election violence. However, studying election violence in Bangladesh remains complex, frequently sensationalised, and generalized. The majority of studies, writings, and reports on election violence are event-driven, judgmental, and often interpretations of interpretations. In this backdrop, this paper attempts to contribute to this gap, mapping out political and electoral violence in 2014–2015 and connecting with electoral authoritarianism.

This study aims to map electoral violence in Bangladesh in 2014 and 2015. It intends to provide a holistic exploration of the process of political and electoral violence in Bangladesh. The overall objectives are twofold: i) the first objective is to understand the trends and dynamics of election violence in Bangladesh, 2014–2015. To achieve this objective, extensive analyses were conducted on violent political events by studying newspaper reports and analyses, and ii) the second objective is to understand how authoritarian practices embedded in electoral processes—such as use of state security forces to oppress the opposition, *durbittayon* (criminalisation of politics), and intra-party conflicts which contributed to sustaining violence and undermining the democratic aspirations of citizens.

The analysis of this study is qualitative in nature. For the analysis of the election violence, the primary data were collected from four national newspapers, three Bengali (*Dainik Ittefaq*, *Dainik Inqilab* and *Prothom Alo*) and one English newspaper (*Daily Star*). While selecting the newspaper, wider coverage and political/ideological bias of the newspapers were considered. *Ittefaq* is the oldest running newspaper in the country and one of the most circulated. It is known for having a very extensive focus on local news (Suykens and Islam, 2015). *Inqilab* is more conservative and has a more Islamist outlook. *Prothom Alo* and the *Daily Star* are published by the same publishing house, but their scopes are quite different. *Prothom Alo* is famous for its liberal and progressive position and remains one of the most widely circulated newspapers. The *Daily Star* is a leading English and progressive daily. To

build the database, newspaper reports were carefully turned into events through a step-by-step process. For an incident to count, it had to meet two conditions: first, it needed to involve violence—such as someone being injured, killed, raped, abducted, taken hostage, or property being destroyed; and second, it had to be political in nature—meaning that at least one political party, allied group, or rebel faction was directly involved. The events were then entered into Microsoft Excel and analysed using SPSS 22.

CONCEPTUAL ANALYSIS

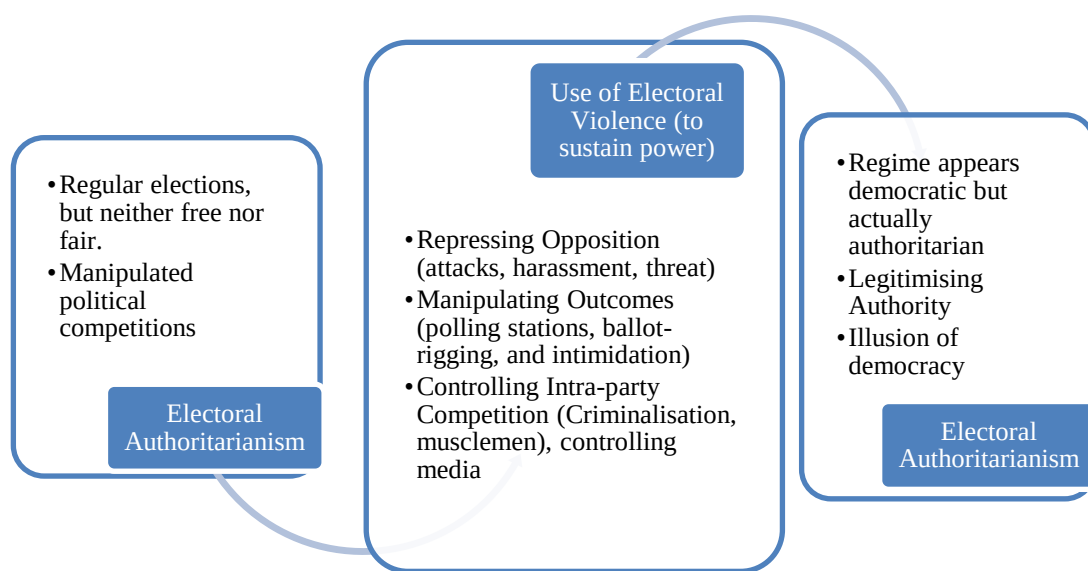
The edifice of the modern political system is the institution of elections. In fact, elections are vital to the successful operation of the political system that we may consider as the crucial element of defining democracy. While democracy has been defined as “a competitive struggle for the people’s vote” (Schumpeter, 1950) among politicians to acquire the power to decide policies, the organisation and the quality of elections matter significantly. Elections are designed to be the means of expressing the popular will and selecting representatives through a free, fair, and competitive process (Daily Star, 2015). Elections are characterised by periodicity, inclusiveness, competition, and transparency, which allow for the legitimate transfer of political authority (Dahl, 1971; Diamond, 1999). Elections serve to provide a non-violent resolution of tensions within a society through which voters are mobilised to select political representatives. The purpose of the whole elected process is to produce a legitimate government (Nwolise, 2007), to ascertain the popular will, to decide policies, and to bring the decision-makers under popular control (Mayor, 1960). An election serves two main purposes- ensuring popular consent and participation in public affairs, and peaceful transfer of power (IFES, 2012).

The concept of electoral authoritarianism is election-centric (Schedler, 2006). Authoritarianism refers to a political system in which power is concentrated in the hands of a single ruler, dominant party, or small elite (Linz, 2000; Geddes, 1999), while political pluralism is severely limited (Diamond, 2002; Przeworski, 2019), individual freedoms are restricted (Levitsky & Way, 2010), and institutional checks and balances are weakened or absent (O’Donnell, 1994). According to Levitsky and Way (2010), in modern authoritarian systems, elections are conducted regularly, but they are mainly manipulated, showing repression and patronage to maintain power, which distorts the boundary between democracy and authoritarianism. In such regimes, elections basically serve as instruments of legitimacy rather than genuine competition (Schedler, 2006; Levitsky & Way, 2010). The opposition parties are often suppressed through coercion (Fjelde & Höglund, 2012; Gandhi, 2008), and the control of media and civil society further constrains pluralism (Diamond, 2002; Nathan, 2003). According to Juan J. Linz (2000), authoritarian regimes are characterized by “limited, not responsible, political pluralism; lack of an elaborate guiding ideology; absence of intensive or extensive political mobilization; and a leader or small group exercising power within formally ill-defined limits.”

Electoral violence includes “all forms of organized acts or threats – physical, psychological, and structural – aimed at intimidating, harming, blackmailing a political stakeholder before, during and after an election with a view to determining, delaying, or otherwise influencing an electoral process” (Albert, 2007). *International Foundation for Electoral Systems (IFES)* describes electoral violence as “any harm or threat to any person or property involved in the

election process, or the process itself, during the election period” (IFES, 2012, Rak, 2018). Election-related violence is special as it involves the strategic intent and practical consequences of a violent act designed to in some way affect the process of elections (Sisk, 2008). When perpetrated to affect an electoral process, violence may be employed to influence the process of elections — such as efforts to delay, disrupt, or derail a poll — and to influence the outcomes: the determining of winners in competitive races for political office or to secure approval or disapproval of referendum questions (GATIMU, 2015; UNDP, 2009). Electoral violence undermines free and fair elections, weakens democratic legitimacy, and may serve to consolidate authoritarian control or manipulate competition (Schedler, 2006). Electoral violence is a tremendously thriving phenomenon in Bangladesh.

FIGURE 1. RELATIONSHIP BETWEEN ELECTORAL AUTHORITARIANISM AND ELECTORAL VIOLENCE



Source: Prepared by the author

BACKGROUND OF ELECTORAL VIOLENCE IN BANGLADESH

The political history of Bangladesh is checkered with agitation, demonstrations, protest rallies, general strikes, and other similar manifestations of anti-government movement (Quadir, 2003). Every regime, whether civilian or military or quasi-military, experienced movement against itself by opposition forces (Hakim, 1993). These movements got many more dimensions during the period of the election. As a result, election violence in Bangladesh has a long historical background and has become institutionalized as a “political norm” (Amundsen, 2013; Alamgir, 2011; Moniruzzaman, 2009; Sattar, 2008). The following table 1 focuses on the overall history of the electoral violence in Bangladesh.

Table 1: National Elections in Bangladesh (1973 to 2014)

Election Year	Events (pre-Election)	Parties	Candidates	Elected Unopposed	Election Postponed (Centres)	Turnout (Percent)	Winner	Casualties (Election Day)
1973	85	14	1209	11	56	55.6	AL	13
1979	122	29	2547	11	63	51.3	BNP	18
1986	221	28	1980	0	284	66.3	JP	32
1988	19	8	1192	18	23	51.8	JP	7
1991	NA	75	2787	0	30	55.5	BNP	1
1996 (Feb-15)	NA	41	1450	49		26.5	BNP	10
1996 (June 12)	NA	81	2574	0	123	75	AL	12
2001	144	54	1939	0	90	75.6	BNP	5
2008	82	38	1567	0	NA	87.13	AL	1

Source: Kazi S. M. Khasrul Alam Quddusi, 'Election in Bangladesh: Who after Caretakers?', Social Action, Vol. 63 (July- Sept. 2013), p. 275; Md. Shahabul Haque & Md. Bayezid Alam, Alliance Politics of Bangladesh: 1954- 2014, Abosar Publication, Dhaka. 2014. P. 256; Daily Star, 5 January 2014

*NA= Not Available

Bangladesh's political arena has long been dominated by two major political parties—the Awami League (AL) and the Bangladesh Nationalist Party (BNP) and their political feud continues to shape the country's democratic trajectory (Riaz, 2016; Lewis, 2011). Competition between these two parties has been characterised by deep-rooted mistrust, personal antagonism between their leaders, and a persistent unwillingness to accept poll defeat (Islam, 2015; Rahman, 2019). The BNP boycotted the elections in January 2014, arguing that they would be rigged by the AL (BBC, 2015), which was in power, in the absence of a caretaker government. As a result, pro-government candidates ran unopposed in more than half of parliamentary districts (153) (The Daily Star, 2014), and AL won an overwhelming victory. More than 21 people were killed on election day (*Kaler Kantha*, 2014). In local upazila elections, which started in February 2014, a repeat of the same form of violence.

The result is that the Bangladesh Nationalist Party was effectively excluded from mainstream politics, causing a sharp rise in fierce protests by activists in the party and that of

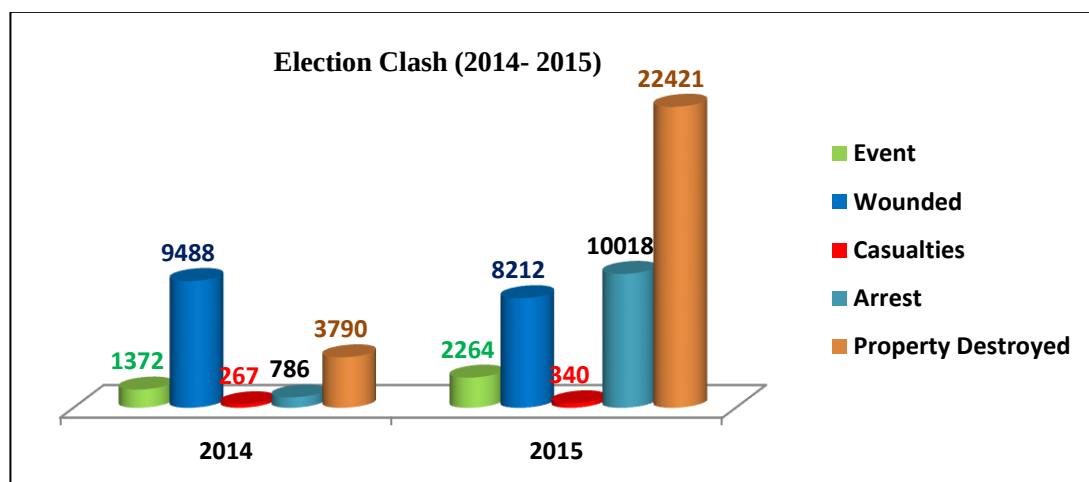
its political ally, the Islamist Jamaat-e-Islami party. It came to a head when on 3 January, 2015, police prevented Khaleda Zia, the leader of the opposition Bangladesh Nationalist Party, from leaving her Gulshan office (Morrison, 2015) and subsequently refused to allow the party to organise a rally it had planned on 5 January 2015 under the banner, “Murder of Democracy Day”. Khaleda Zia then announced a non-stop ‘blockade’ of the roads, railways and waterways leading into Dhaka, the capital (Lunn, 2015), and this resulted in the arrest of several senior BNP leaders, including Mirza Fakhru Islam Alamgir, the party's acting secretary general, on 6 January. Khaleda Zia called for Sheikh Hasina, the then prime minister, to resign and call fresh elections (The India Today, 2015). Prime Minister Hasina has said her government will remain in office until her term ends in 2019 (*Guardian*, 2015). Zia and her party responded by calling for a transportation blockade and general strike (NY, 2015).

Opposition activists, supporters, and hired hands picketed the roads and set fire to vehicles. Day after day, the situation became more vulnerable, and the level of violence, arson attacks, bombing, torching, burning, and killing increased and spread all over the country. Violence was reported in April and December 2015 when the City Corporation Election and Municipality Election were held.

MAPPING ELECTORAL VIOLENCE, 2014-2015

Electoral Violence during 2014 and 2015 was concentrated during a few key months. Figure 2 presents the data on events, injuries, and deaths, offering a broad picture of how widespread and intense the violence was during this period. The violence related to the 10th parliamentary election also continued in the first quarter of 2015. The months when local elections were held were also more violent than other months in this time period. The overall dataset shows 3636 single incidents of violence connected to the conduct of elections, resulting in 17700 wounded, over 607 casualties, and 26211 properties destroyed.

FIGURE 2: OVERALL TRENDS OF ELECTION VIOLENCE IN 2014- 2015



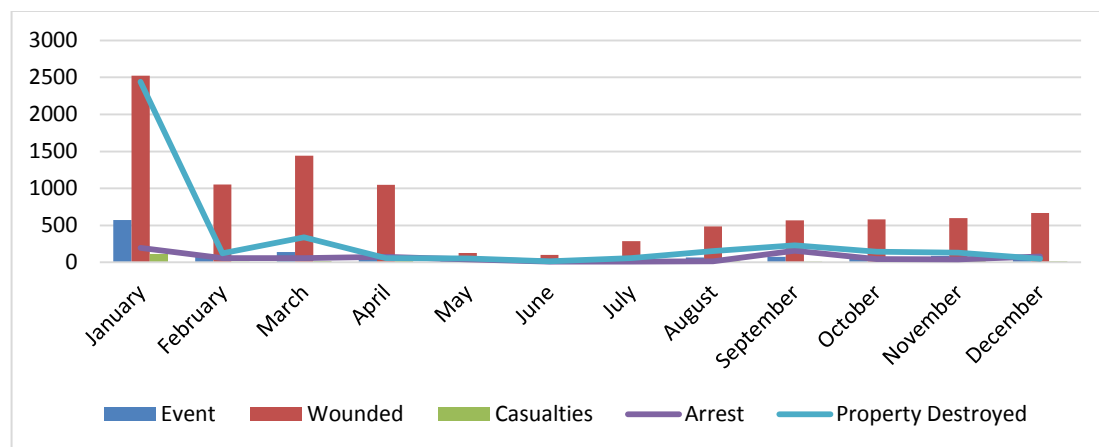
The analysis identified several types of violence related to election violence in 2014 and 2015. These include:

- Blockade and hartal-related protest activities,
- Arson attack on people and vehicles (attacking passenger or local public transports, especially buses, where people were set on fire with petrol bombs and Molotov cocktails, the torching of trucks and other vehicles carrying essential supplies such as food, and arson targeting passenger ferries.)
- Rail networks were also sabotaged, leading to train derailments that killed and injured numerous passengers.
- Bomb blasting (petrol bomb, cocktail, crude bomb, homemade bomb)
- Attack on political rallies and processions relating to the election
- “Durbitta” (a rising number of criminal engagements in violence)
- Rising number of intra-party clashes between candidates nominated by the parties and rival candidates
- Journalists were the prime target in city and municipality elections
- Ethnic and minority religious groups became victims during election time
- Innocent common people who are not connected with politics were the main victims and suffered the most.

Electoral Violence in 2014

The year 2014 started with a high number of violent events, and January was the most violent month this year, much higher than other months. The main reason is the occurrence of the parliamentary election. Local elections also started in February, and this made the first quarter of 2014 more vulnerable. In the third quarter, the sixth and seventh phases of the Upazila Elections and some by-elections in Barisal-5 and Narayanganj-5 for parliament. Between May and June, by-elections in 103 Union Parishads also took place. These elections created a lot of tensions and resulted in many violent events. In the third quarter, a total of 180 violent events produced 1343 wounded, 32 casualties, and 437 properties destroyed.

FIGURE 3: ELECTORAL VIOLENCE IN 2014



In the last quarter of 2014, a high number of non-lethal casualties (see figure 3). From October to December, the Municipality election was held. 17 Municipalities by-elections for different posts, 3 Upazila elections, 83 Union Parishad by-elections, along with Narayanganj's Rupganj Union Parishad were also held. In the last quarter of 2014, there were 208 violent events resulting in 1851 wounded, 37 casualties, and 327 destroyed properties as a result of election violence.

Local Elections and Violence in 2014

In contrast with the national election, the Election Commission conducted local elections and arranged the country's 4th Upazila Parishad Elections. The Election Commission announced dates for five phases, but due to extreme irregularities and violence, many Upazila elections were postponed. Upazila elections were held in 487 Upazilas in seven different phases with a very high number of non-lethal casualties.

TABLE 2: UPAZILA ELECTIONS AND VIOLENCE IN 2014

Upazila Election	Date	Number of Upazilas	Irregularities in Voting Centres	Postponed	Election Boycott (Candidates)	Violent Events	Wounded	Casualties
First Phase	19 February, 2014	98	65	0	0	17	107	1
Second Phase	27 February, 2014	115	100	34	0	20	272	0
Third Phase	15 March, 2014	81	200	26	42	28	301	4
Fourth Phase	23 March, 2014	91	400	32	37	24	326	7
Fifth Phase	31 March, 2014	73	100	19	65	39	668	4
Sixth Phase	19 May, 2014	13	171	2	NA	2	7	0
Seventh Phase	21 September, 2014	5	NA	NA	3	5	22	0

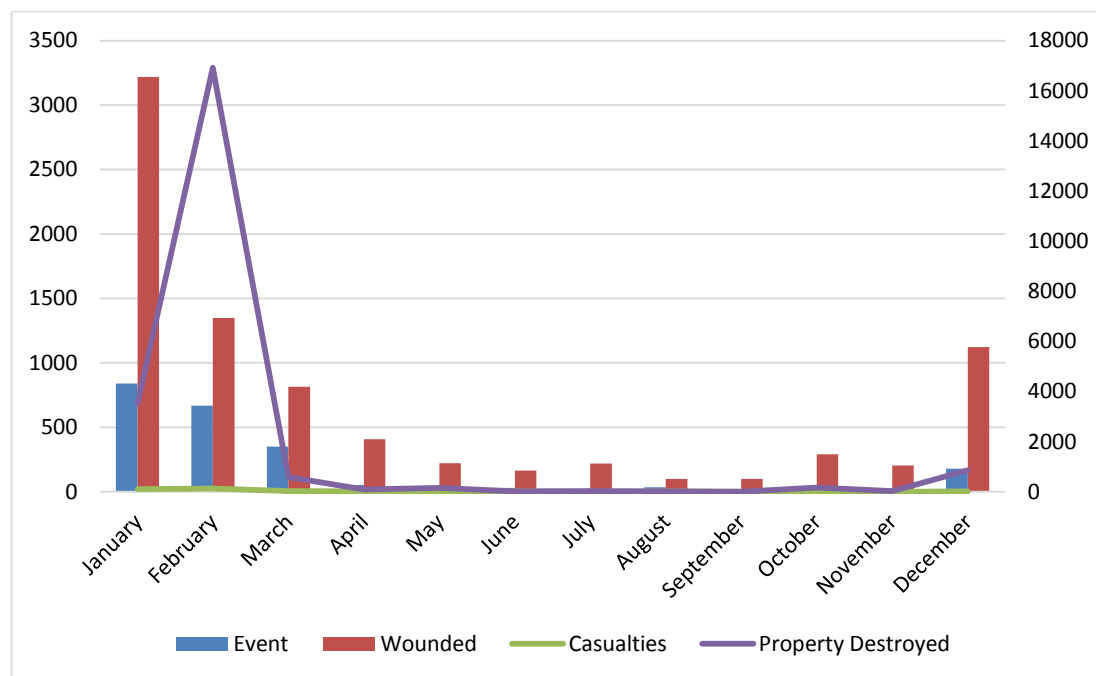
In February, a total of 109 violent events resulted in 1051 wounded and 10 casualties. Third, fourth, and fifth Upazila elections in 245 Upazilas were held in March, which produced 139 events of violence. In March, 1440 wounded, 19 casualties, and 338

properties destroyed. Stray incidents of violence, vote rigging, stuffing of ballots, and capturing of polling stations (The Daily Star, 2014) were reported in many upazilas. Voter turnout was very low as panic over violence gripped the voters.

Electoral Violence in 2015

In the first quarter of 2015, the number of violent events, casualties, wounded, and destruction of property broke all the previous records of violence in Bangladesh. We can categorise the violence in the first quarter as post (national) election violence. It is also notable because it was sparked on the first anniversary of the election. Politics in Bangladesh became a blood sport during the period from January to March 2015. In the early days of 2015, political tensions and violent acts started in Bangladesh, and never before in the history of Bangladesh politics has there been such a prolonged, continuous blockade-hartal. Never have so many people had to die, never was there so much sabotage, never before had there been such political programmes on the weekends or national holidays. In the name of politics, the lives of common people have been placed under constant threat (Hossain, 2015).

FIGURE 4: OVERALL ELECTORAL VIOLENCE IN 2015



In April and December 2015, the number of violence and wounded were also very high. The reason for this is that in April and December City Elections were held in Bangladesh. In April, City Corporation Elections were held in North Dhaka, South Dhaka and Chittagong City Corporation, and in December, Municipality Elections were held in 234 Municipalities. In addition, by-elections were held in Magura-1 for their 10th parliament seat, ward 7 councillor by-election in Sylhet City Corporation, 3 municipality elections, Union Parishad elections in 9 Parishads, and Union Parishad by-elections in 213 parishads were

held in the period of March to June. From July to September, all the elections were by-elections, including a councillor for ward 4, Narayanganj City Corporation, 4 Municipality by-elections, 2 Upazila by-elections, and Union Parishad elections in 105 parishads. Across the entire year, election violence was observed. A total of 2264 violent events were recorded in 2015, including 8212 wounded, 340 casualties, and 22421 properties destroyed in 2015.

In April and December 2015, the number of violence and wounded was also very high. The reason behind this scenario is that, in April and December, City Elections were held in Bangladesh. In April, City Corporation Elections in North Dhaka, South Dhaka, and Chittagong City Corporation, and in December, Municipality Elections in 234 Municipalities were held. Besides, by-election in Magura-1 for 10th parliament seat, 7 no. word councillor by-election in Sylhet City Corporation, 3 Municipality Election, Union Parishad Election in 9 Union Parishad, Union Parishad by-Election in 213 Union were held from March to June. In July to September, all the elections were by-elections, including a councillor for 4 wards, Narayanganj City Corporation, 4 Municipality by-elections, 2 Upazilas by-elections, and Union Parishad elections in 105 Unions. So, the whole year 2015, we observed lots of elections and election-related violence. A total of 2264 violent events were recorded with 8212 wounded, 340 casualties, and 22421 properties destroyed in 2015.

ANALYSIS OF ELECTORAL AUTHORITARIANISM AND ELECTORAL VIOLENCE IN BANGLADESH, 2014-2015

In Bangladesh, electoral violence is neither uniform nor static; it has evolved over time, following distinct patterns shaped by political dynamics (Islam, 2015). During general elections in Bangladesh, violence usually takes four main forms: direct physical attacks, psychological fear, violence targeting women and children, and election-related economic violence. No one connected to the electoral process is fully safe from these threats. Voters, election officials, candidates, aspirants seeking party nominations, political activists, community leaders, election workers, journalists, civic educators, and even those responsible for providing electoral security have all been targeted. The purpose of such violence is clear—to silence, control, or limit people's participation in elections, depending on the roles they play in the process.

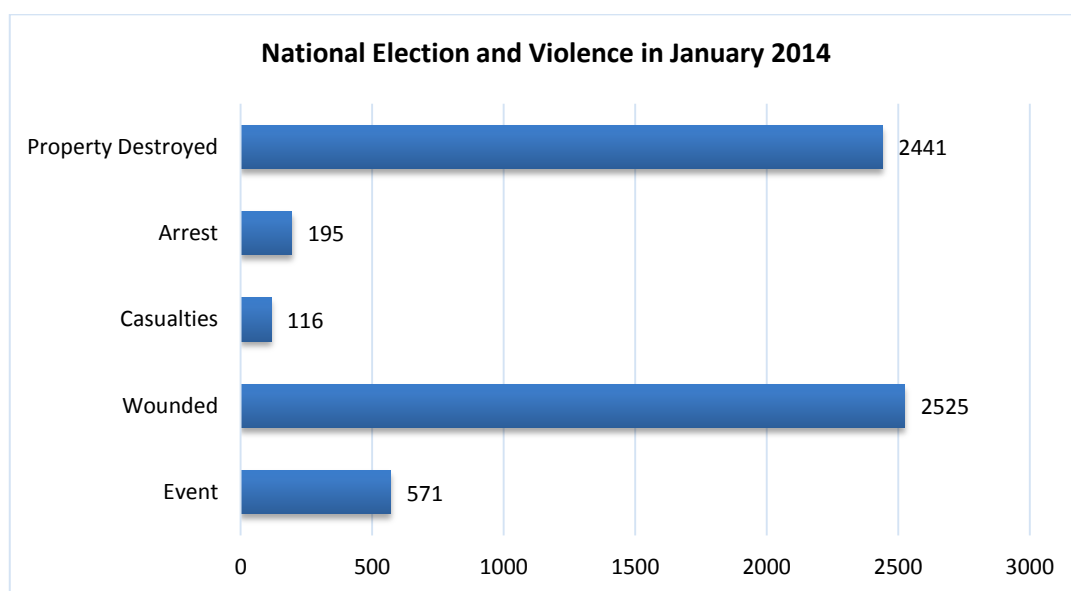
National Election- Less Contesting, High Violence

Unlike most other elections in the past, on 5 January 2014, the 10th Parliamentary election was held in a dull and less festive atmosphere. 390 candidates from 12 political parties participated in the election (BEC, 2015) by only 4.39 crore voters, meaning more than half of the country's 9.19 crore voters did not cast ballots. Before the election at least 100 polling centres in 23 districts (out of 59) were torched while an assistant presiding officer was beaten to death by opposition activists. The main opposition party boycotted the election, and that resulted in 153 candidates being elected unopposed, where the ruling AL won 123 of the total 300 seats before the election. Voter turnout was very low. In at least 41 centres in 11 districts, not a single ballot was cast. 130 houses of the minority community were vandalized after the vote. According to M Sakhawat Hussain,

“This election and its result would remain as an inglorious chapter in the glorious history of Bangladesh Awami League... in fact no one could claim to be gainer out of this election; rather the biggest loser is democracy. The other loser, perhaps a bigger one is the Bangladesh Election Commission.” (Hussain, 2014)

Aljazeera reveals that more than 200 polling stations were set on fire. Voting was suspended in 539 polling centres in the wake of violence, according to the Election Commission. 31 candidates withdrew from the race. Of the polling centres, 27 alone were in Lalmonirhat, 4 in Jhenaidah, 2 in Satkhira, and 1 each in Feni, Cox’s Bazar, Sylhet, Chuadanga, Dinajpur, Naogaon, Rajshahi and Sirajganj. All those centres were set up in BNP- Jamat dominated areas. The post-election scenario was more ominous. Just after Election Day (6 January), around 65 violent events were reported, with 518 wounded and 12 casualties. The whole month of January, which was the top violent month in 2014, all the violence were connected with national election.

FIGURE 5: VIOLENCE IN NATIONAL ELECTION 2014



In total, 31 days of January, around 571 election violence events occurred in the pre and post-election period and on election. It should be noted that this election was the most violent in the history of Bangladesh. In total, 116 people died, 2525 people were injured, and 2441 properties were destroyed.

Authoritarian Control through Violence on Common People

People in Bangladesh celebrate their democratic rights by casting votes in a festive mood. But during the 10th parliamentary election, the mood was characterised by fear, anxiety, indifference, and apathy. Common people became the main victims of the election. The database focuses on 39 violent events where violent non-participant or the common people who had no connection with politics became victims in the January Election, which resulted

in 199 wounded and 7 casualties. Minority groups suffered the most. The first area attacked after the election was Malo Para of Abhoynagar at Jessore, where approximately 400 Hindu Villagers were forced to leave their homesteads, which were looted, torched, and vandalised (The Daily Star, 2015). The attacks were then repeated in Thakurgaon, Dinajpur, Rangpur, Bogra, Lalmonirhat, Rajshahi and Chittagong (*Prothom Alo*, 2015). Ethnic and minority religious groups were also became victim in violence. There were 40 violent events where ethnic and religious minority groups were targeted, and that resulted 194 wounded, 12 casualties, and 421 instances of property destruction.

Contrasting Celebrations of “Democracy Restoration” and “Democracy Assassination”

The year 2015 started with political violence related to the conflicting celebrations of the day of “democracy restoration” and the day of “democracy assassination” by the major political parties and their alliances. The two major political parties defined 5 January in different ways and observed the day with different types of celebratory events. But the output was the same – violence – which led to more than three months-long blockades, political uncertainty, and extreme violence.

The blockade started on 6 January 2015 when Khaleda Zia, the leader of the main opposition party, the Bangladesh Nationalist Party (BNP), called for her supporters to blockade the country's roads, railways, and waterways to protest what she considered an unfair 2014 general election. From 6 January 2015, there had been non-stop blockades all over the country by the BNP-led 20-party alliance, which continued till the second week of April 2015. In the 90 days of the Blockade (6 January to 6 April) 1990, violent events resulted in around 4786 people being injured, suffering burns, and 318 people died.

Fear by Fire: Arson Attack and the Use of Bombs as Tools of Intimidation

Petrol bombs and arson attacks became a new element of violence in 2015, to create fear and bring people's lives to a standstill. Mainly, long-distance buses, trucks, and public transportation were the main targets of these sorts of attacks. The number of arson attacks in the first four months of 2015 alone was nearly triple the amount recorded during all of 2014. There were 1347 reported incidents of arson attacks and bombings that caused 3395 injuries and 180 casualties in 2015.

Controlling Media, Silencing the Watchdogs, and Violence Against Journalists

An attack on journalists is an uncommon type of violence in election history. Around 24 journalists were injured, beaten, and harassed on Election Day. At some places, their cameras and vehicles were vandalised, mobile phones and important documents like photographs were taken and deleted from the mobile. They were threatening to leave the polling centre. A journalist went to collect news and took a photograph of fake voting. Then he was caught by that group, and his mobile was taken and his pictures deleted. Later, he was able to get back his mobile with the assistance of the police. Another reporter was stuck in a room by the ruling party as he took a picture of their illegality. Later, he was released when his colleagues came to rescue him. A further incident took place in Chittagong, where a reporter went to collect news, and he was attacked and injured by the ruling party. Police and ruling party activists did not allow journalists to get into the polling centre. Many

journalists were beaten and assaulted physically (Jugantor, 2015). From the database, a total of 59 events were found where Journalists became victims, resulting in 271 wounded in 2014 and 2015.

State Security Forces Involvement in Electoral Violence

State security forces resorted to indiscriminate use of force, including extrajudicial killings, gunfights, and shooting. At least eight suspected arsonists, whose family members claim they were innocent (The Independent, 2015), were killed in alleged gunfights with law enforcement personnel, mainly the Bangladesh Police and the Rapid Action Battalion (RAB), between 5 January 2015 and 5 February 2015 in Dhaka alone (ACHR, 2015). The State Security Forces were also involved in clashes with political parties, picketers, and criminals in 2015. Two candidates running for chairman in a Union Parishad election clashed with police, killed 1 in the Rangpur polls. More than 40 police officers were injured in different clashes in the first quarter of 2015. Blockaders also targeted the security forces and threw bombs into their cars, buses, and other vehicles.

In 2015, the state security force like Police, RAB, BGB, White uniform police, and Ansar, were involved in 372 violent events. Most of the events, they played their role as actors in clashes. In the events where state security forces were directly involved, 2706 were wounded and 126 casualties.

“Durbitta”- Rising Criminal Involvement in Electoral Violence

A “*durbitta*” is a person who has committed a crime. In a general sense, crime means violating the law, regulation, or anything harmful that destroys human society or resources, or creates problems in human life. In the first quarter of 2015, there were a large number of newspaper reports that focused durbittas as the main violent actor. But who are the durbittas and what is their goal is a big question. During the election period, the number of durbittas involved in election violence was also very high. In a general sense, criminals have their personal motivations, which are personal and basically economic. But when their involvement is found in an election, it turns into political motivation. In some cases, when reporters do not dare publish the specific identity (especially when the media is controlled by the ruling party), they usually use the term “Durbitta” to hide the original political identity. It is a new trend of politics in Bangladesh, the “politics of Durbitta”. From the dataset, 867 events were coded where “Durbitta”- unidentified or unknown and known criminal participated in the violent event as an actor, and 1292 wounded and 262 casualties were recorded.

Violence as a Mechanism for Entrenching Authoritarian Rule

The findings validate that electoral violence in Bangladesh 2014–2015 was not incidental; it was used strategically to strengthen authoritarian control by the ruling Awami League (AL). Following the opposition’s boycott of the January 2014 elections, the state and its affiliates instrumentalized violence to eliminate political rivals, demobilize dissent, and ensure unchallenged dominance. The State security forces engaged in systematic repression, like extrajudicial killings, enforced disappearances, and arbitrary arrests targeting leaders and activists of the opposition parties. Violence served as a deliberate tool for the ruling elites to manage political competition, limit political participation and opposition efforts, which lent

the regime a veneer of electoral legitimacy amid de facto one-party rule. By excluding the opposition and using systemic and institutionalized coercion, they created an environment where real political competition was totally impossible. In this period of time, politics of Durbitta, criminal networks, and local musclemen became crucial actors in the electoral process. Ruling elites increasingly outsourced coercion to these groups to silence dissent, intimidate voters, and weaken opposition campaigns. These practices maintained an illusion of democratic processes while undermining their true significance. Elections, although officially held, were marked by intimidation, ballot tampering, and oppressive tactics, turning them into tools of authoritarian legitimacy rather than platforms for fair competition. Ongoing violence against non-participants, ethnic, and minority groups highlighted the regime's dependence on fear for governance. Ultimately, violence served two purposes: it indicated the weakness of the authoritarian regime and acted as a method for consolidating power, keeping the illusion of democracy alive while cementing undemocratic practices. This cycle shows how crucial coercion is in electoral authoritarian regimes and emphasizes the unclear lines between democracy and authoritarianism.

DISCUSSION

Electoral violence fosters impaired checks and balances, undermining trust in the Election Commission, judiciary, and law enforcement institutions. When political activities are criminalised, and local administration becomes politicised, the incumbent regime is able to generate an election process that is staged and allows the active dismantling of institutions to continue under the guise of democratic elections. The results are consistent with Schedler's (2006) definition of electoral authoritarianism. While elections exist, electoral authoritarianism is sustained through capturing electoral institutions. The Bangladesh case studies expand this theory to show that authoritarianism can also be established through the normalisation of electoral violence. Levitsky and Way (2010) emphasised that hybrid regimes are occupations of the democratic-dictatorial overlap, and this study empirically demonstrates that sustained violence complicates the boundaries of hybrid regimes. The data also indicated that electoral violence did not affect all citizens, and the violence disproportionately affected citizens who did not engage in the electoral process, minorities, and journalists, demonstrating how authoritarian regimes utilize fear to hold power. In this sense, the utilisation of organised coercion converts the electoral process into a process of intimidation. The findings suggest that authoritarianism in Bangladesh is maintained utilising three interconnected mechanisms:

- (i) institutional capture,
- (ii) systemic coercion, and
- (iii) legitimacy through managed elections.

These dynamics illustrate how the convergence of institutional capture, systemic coercion, and managed electoral legitimacy not only entrenches authoritarian rule in Bangladesh but also redefines the very functioning of electoral democracy into an instrument of controlled political dominance.

TABLE 3: LINKING CONCEPTUAL ANALYSIS WITH DISCUSSION

Conceptual Dimension	Analytical Discussion (Findings in the Bangladesh Context in 2014-2015)
Electoral Authoritarianism (Schedler, 2006)	The study confirms that electoral violence in Bangladesh operates within an electoral authoritarian framework where institutions such as the Election Commission and judiciary are captured to sustain regime control under the appearance of democratic competition.
Hybrid Regime and Democratic Façade (Levitsky & Way, 2010)	The findings illustrate that Bangladesh's hybrid regime has blurred boundaries between democracy and authoritarianism. Elections exist formally, but their substance is hollowed out by manipulation and coercion.
Normalisation of Violence	Violence has become institutionalised as a routine political tool, used to suppress opposition and intimidate non-participant citizens, minorities, and journalists. This normalisation converts the electoral process into one of fear and control.
Institutional Capture and Systemic Coercion	Authoritarian consolidation in Bangladesh is maintained through control over state institutions and coercive apparatuses, reinforcing a cycle of impunity and repression.
Legitimacy through Managed Elections	Regular but manipulated elections provide the ruling elite with both domestic and international legitimacy while sustaining autocratic control.
Erosion of Democratic Trust	Recurrent violence and manipulation have diminished citizens' confidence in the democratic process, leading to voter apathy and political alienation.

In terms of policy, combating electoral violence necessitates the strengthening of intra-party democracy, the decriminalisation of political competition, and the depoliticization of security forces. Without these institutional changes, violence will continue to be a deeply entrenched characteristic of electoral politics and a continuing factor to subvert the democratic aspirations of citizens.

CONCLUSION

The dynamics of electoral violence in Bangladesh are hardly studied or are less noticeable, except for some media and after-election reports, mainly by election observers and activists. But election violence is the key form and framework of political violence and electoral authoritarianism. Without a better understanding the determinants, dynamics and triggers of election violence, it is hardly possible intervening effective programs against electoral violence.

This paper has presented an overview of electoral violence during 2014 and 2015 and provides basic data to understand the shape of election violence, but many questions remain unanswered. The findings focus on blockade and hartal- related protest activities, arson

attacks on people and vehicles, the sabotaging of rail networks resulting in the uprooting of trains, killing and hurting passengers, bombs (petrol bombs, Molotov cocktails, crud bombs, and homemade bombs), attacks on political rallies and processions relating to elections were common types of electoral violence in 2014 and 2015. These two years also experienced an increasing number of attacks by “durbitta” (known criminal elements or organised crime syndicates). Another important feature is the increasing number of intra-party clashes over candidate nominations and between rival candidates. The victims were mostly non-participants (people who were not part of protests or hartals). This paper also recommends further research on understanding the dynamics behind the organisation of elections and violence, the dynamics and role of different actors, law and security forces, Ansar forces, and so-called party agents and volunteers.

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Sufism in the Hill Areas of Nepal Himalaya: The Inaudible Heartbeat of Religious Mysticism

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ABSTRACT

This article presents an ethnographic analysis of the presence and adaptation of Sufism in Nepal's hill regions, a context largely neglected in anthropological studies of South Asian Muslim communities. Existing scholarship has focused primarily on Muslims of the Terai plains, leaving the lived religious practices and cultural negotiations of Himalayan Muslim populations understudied. Addressing this gap, the study explores how Sufi traditions were historically introduced into the hill regions and how they have been reworked through everyday interactions with local ecologies, belief systems, and multi-ethnic social formations. Based on long-term qualitative fieldwork incorporating participant observation, oral histories, ritual documentation, and local historical narratives, the article examines ritual practices, healing practices, dhikr gatherings, and shrine-centred devotional activities as sites of religious meaning. The findings demonstrate that Sufi practices function as embodied and relational forms of religiosity that facilitate interreligious interaction, shape local Muslim identities, and sustain cultural syncretism within plural social settings. Despite contemporary transformations linked to migration, modernisation, and reformist Islamic movements, Sufi ethics and ritual practices continue to structure moral life and social cohesion in the hill communities. The article contributes to anthropological debates on lived religion, minority adaptation, and the cultural production of religious pluralism in the Himalayan region.

Keywords: Lived religion, Himalayan Muslims, Religious pluralism, Ritual practice, Cultural syncretism

INTRODUCTION

Allah Hoo, Allah Hoo, Allah Hoo
Allah Hoo, Allah Hoo, Allah Hoo..
Yeh zameen jab na thii yeh jahaan jab na thaa
Chaand suraj na thay aasman jab na tha
Raaz-e-haq bhi kisi per ayaan jab na tha
Tab na tha kuch yahaan tha magar tu hee tu
Allah Hoo, Allah Hoo, Allah Hoo

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Allah Hoo, Allah Hoo, Allah Hoo
 Sana bashar k liyeah bashar sana k liyeah
 Tamaam hamd sazawaar hai khuda k liyeah
 Ata k samnay yarab khata ka zikar he kya
 Tu ata k liyeah hai bashar khata k liyeah
 Allah Hoo, Allah Hoo, Allah Hoo
 Allah Hoo, Allah Hoo, Allah Hoo
 Kiyoon piyaa ibn-e-haidar nay jaam-e-fanaa
 Khaal khichwai tabraiz ne kiyoon bhala
 Daar per charh ke mansoor nay kia kaha
 Sab banatay khilonay lay raha tu he tu
 Allah Hoo, Allah Hoo, Allah Hoo
 Allah Hoo, Allah Hoo, Allah Hoo
 Laa ilaahaa teri shaan ya wahdahoo
 Tu khayaal-o-tajassus tu he aarzoo
 Aankh ki roshni dil ki awaaz tu
 Tha bhi tu, hai bhi tu, hoga bhi tu hee tu
 Allah Hoo, Allah Hoo, Allah Hoo
 Allah Hoo, Allah Hoo, Allah Hoo²

(Lyrics by Ustad Nusrat Fateh Ali Khan)

Living in the mountain can be harder. At higher altitudes, air is thinner, which means it has less oxygen, and that makes breathing harder³. Learning from mountains makes living easier, as it involves adapting to nature and fighting against more complex challenges (Blake, 2005). The pedagogy of learning philosophy develops through the obstacles and experiences within the community, culture and nurture. 'Himalaya' is also associated with the image of mountainous romanticism; it is reproduced through the lens of Western discourse, colonial eyes, the Enlightenment, and modernity. The Himalaya has profoundly shaped the cultural, religious, and ecological formations of South Asia and Tibet, functioning both as a zone of interaction and a formative landscape for social life (Fisher, 1978; Samuel, 1993; Ives & Messerli, 1989). The representation of Nepali Muslims encompasses a rich tapestry of origins, history, and narrative that highlight their integral role in the cultural, social and ecological fabric of Nepal. Nepali Muslims encompass a diverse range of cultural, socio-economic, environmental, and political aspects. Their representation is deeply rooted in historical migration, cultural exchanges, contemporary socio-political dynamics, and ecological habitat and contributing to the diverse mosaic of Nepalese society (Pande, 2017).

The epistemological journey regarding Muslim studies in Nepal began with Western scholars, such as Marc Gaboriau. It gradually involved the engagement of Nepali, non-Western, and Muslim researchers, including Dor Bahadur Bista, Mallica Dastidar, and

² <https://www.studymode.com/essays/Gsgsgsgsdgsdgsdg-1699699.html>

³ <https://greed-head.com/why-life-of-plains-is-better-than-life-of-mountains/>

Siddika, who contributed to the trends in Muslim studies in Nepal. The contributions of different scholars have developed pedagogy to understand the Muslims of the Himalaya in terms of origin, historical perspectives, cultural phenomena, socio-political, and socio-economic parameters.

This paper aims to explore the nature of Sufism, Islamic culture, and the perspectives of the Himalayan region regarding the Himalayan Muslim community. Besides, the article will concentrate on the findings of the studies that represent what Nepali Muslims identity is, and the relationship between Himalayan culture, Sufism, and Islam. This article also tries to understand the academic aspects of Muslim culture and ideology. The article will explore the subject matter of Sufism, its methodology, epistemology, and narratives of the Hill Muslim communities in the Nepalese Himalayas. This article aims to study and uncover the nuanced aspects of Sufism's presence in Nepal's hill regions, exploring how Sufi practices arrived, who the key figures were, how they interacted with Nepali local belief systems, values, and traditions, and what role they play in contemporary performance.

Literature Review, Theoretical Framework and Research Gap

The study of Sufism in Himalayan Nepal remains untouched within South Asian Islamic scholarship. While extensive work exists on Sufism in India, Pakistan, and Bangladesh (Schimmel, 1975; Rizvi, 1978; Ernst, 1997), but the Himalayan context receives marginal attention. Nepali scholars (Gaboriau, 1995; Dastidar, 2007; Siddika, 1993; Upadhyay, 2014) focused primarily on the Terai and Kathmandu Valley, leaving the Pahari Muslims, particularly their Sufi practices that are notably invisible. This literature gap extends to the cultural, ritual, and interfaith influences of Sufism in the Himalayan Nepal.

Sufism in South Asia: Scholarship and Gaps

Sufism in South Asian has been widely focused for its cultural adaptability, religious synchronization, and social embeddedness (Eaton, 1993; Ewing, 1997; Lewisohn, 1999). Scholars highlight the spread and adoption of different tariqa such as Chishti, Qadiri, and Suhrawardi traditions along trade networks and political corridors, which emphasizes ability of Sufism to flourish in regions of plurality. But the studies uncover Himalayan Nepal, important frontier space that historically connected through trade with Tibet and Northern India. Few references (Rafiqi, 2003; Snedden, 2015) address hill Muslims of Himalaya but do not describes how Sufi ideology interacted with hill cultures, rituals, geography, and oral traditions. This article tries to fill the link by providing ethnographic evidence of Sufi adaptation and lived Islam in the locality of the Gorkha region.

Religious Syncretism and Cultural Fusion in South Asia

Theoretical work on syncretism emphasizes ritual borrowing, overlapping cosmologies, and shared symbolic worlds (Stewart & Ernst, 2010; Madan, 2003). In Nepal, scholars such as Bista (1982), Subedi (2006), and Upadhyay (2019) describe a tradition of ritual simultaneity in which Hindu, Buddhist, animistic, and shamanic practices coexist. Sufi saints and healers entering this pluralistic terrain were woven into existing spiritual structures through healing rituals, barakah narratives, and shared sacred spaces. Yet no study has examined Sufi-specific syncretism in Nepal's hills. The present article demonstrates how dhikr, healing

practices, communal feasts, and shrine reverence merged with hill folk songs, mythologies, and festival rhythms.

Muslim Communities in the Himalayas: Historical and Anthropological Research

Historical scholarship (Gaboriau, 1995; Dastidar, 2007; Pande, 2017) documents the settlement of Muslim traders, artisans, and soldiers during Malla and Shah Regimes. But the literature hardly analyses that how the Islamic spirituality conceived in the cultural ecologies of the mountain and religious pluralism of hill village life. This article draws on the concept of “vernacularisation” (Asad, 1986; Eaton, 1993), and shows that how Sufi idea became a local theological vernacular expressed through oral histories, narratives and mixed rituals in Gorkha. Besides, it emphasizes norms and moral codes respecting harmony and kinship.

THE CRITICAL FRAMEWORK

Vernacular Islam and Local Adaptation

The framework of vernacular Islam helps explain how Sufi practices, such as dhikr, healing, and shrine reverence, were adapted into local idioms. In hill communities, Sufi saints became part of local cosmologies, dhikr merged with folk melodic structures, and Sufi ethics aligned with communal values.

Syncretic Religious Landscape

Syncretism in South Asia involves shared symbols, hybrid rituals, and overlapping sacred spaces (Ewing, 1997). Sufism of hill region exemplifies this through:

- Muslim artisans decorating Hindu temple images (e.g., Kalika Temple)
- shared participation in Urs-like gatherings
- Hindu/Buddhist belief in Sufi healing powers
- Incorporation of Sufi saints into oral legends

The framework defines how Sufi ideas became embedded in Himalayan religious and cultural aspects of life.

Pluralism and Interfaith Coexistence

Pluralism theory (Berger, 2014; Madan, 2003) confirms the coexistence and negotiation across religious communities. Pluralism appears in shared sacred landscapes, interreligious networks of cooperation, communal labour. Besides, morality emphasises peace and support, and Sufi ideas of love, unity, and humanity bind these pluralistic phenomena.

Importance of the Framework

These perspectives contextualize Sufism of hill and region together within wider Sufi knowledge, and explain its cultural embeddedness through syncretic mechanism, and explain hill Muslims in the broader debates of Himalayan cultural and religious pluralism. The framework provides a foundation for analysing the findings of the study.

Objectives, Methodology, and Research Area

This article aims to study and uncover the nuanced aspects of Sufism’s presence in Nepal’s hill regions, exploring how Sufi practices arrived, who the key figures were, how they

interacted with Nepali local belief systems, values, and traditions, and what role they play in contemporary performance as well as lived Islam. This study contributes to filling that **research gap**, offering insights into how Sufi traditions are practiced and adapted in a multi-religious, multi-ethnic society. Exploration of Hill Muslim culture, as well as Sufi practice, is an excellent opportunity to gain insight into the Hill Muslims of the Himalayas from both academic and readers' perspectives. The geographical focus of this research is on **specific hill districts of Nepal**, where pockets of Sufi influence have historically existed and continue to thrive. Besides, the origin of Muslims in hill Nepal, their adaption, cultural integration, ritual practices, living in a plural society mostly Hindu dominated social settings and their world view are the important goals of the study.

The article is written based on an empirical study and fieldwork in a village in Nepal. Informal questionnaires, FGDs, case studies, life history methods, and social mapping were also conducted. Informal questionnaires, FGDs, case studies, life history methods, and social mapping were also conducted. A pilot study was conducted before the intensive fieldwork. The study employs a qualitative **research approach to explore the** cultural and spiritual dimensions of Sufism within the selected geographical context. The research methodology includes **field-based observations, semi-structured interviews, and textual analysis** of both primary and secondary sources. This study contributes to filling that **research gap**, offering insights into how Sufi traditions are practiced and adapted in a multi-religious, multi-ethnic society.

Data has been analysed using a qualitative thematic approach. Interviews, focus group discussions, life histories, case studies, field notes, and social maps were transcribed, translated, and coded to identify themes related to the arrival of Sufism, ritual practices, cultural adaptation, and interreligious interaction. Emphasis was placed on lived and performed Islam in everyday life. Triangulation with textual and secondary sources enhanced analytical reliability and contextual interpretation.

Research Area and Sampling:

To conduct the study, a purposive sampling technique was used to choose eight villages, and these are Aruswara, Belmisauni, Deragaon, Ahle Vanjeng, Manpur, Gaikhuro, Kokhe Ale Vanjeng, Nibel, and Jhintang Asrang of Gorkha district which is based on historical presence of Muslim, Sufi tradition, influence, and access. Besides, the respondents were selected using purposive and snowball sampling as well.

Respondents:

There were a total of 52 participants, including 14 religious leaders, 18 adult men, 12 adult women, and 8 youth (15–25). Diverse socio-economic backgrounds ensured representativeness.

Data Collection Methods:

Semi-structured interviews were conducted, focusing on Sufi lineage, spiritual practices, and interreligious relations. Focus Group Discussions (FGDs) was arranged involving four groups where 10–12 participants were in each group. Besides, Life history Narratives collected from five elderly participants documenting undocumented histories. In addition, in depth Observation conducted in households, mosques, dhikr gatherings, and community

rituals. Document and Textual Analysis of local manuscripts, family records, and historical texts used as secondary data.

Ethical Considerations:

Informed consent was obtained from all participants. Anonymity was ensured using pseudonyms. Sensitive topics were approached with cultural respect, and community permission was secured for interviews and FGDs.

Demography

Historically Nepal is characterized by cultural pluralism in terms of multi-ethnic, multilingual, multicultural as well as multi-religious fabric. This Himalayan country has various historical influences; many communities and traditions of Nepal have been shaped by these influences. Nepal, the daughter of the Himalaya, holds people of various religions such as Hindus, Muslims, and Buddhists. Beyond its religious identity, Nepal is renowned as a haven of diverse cultures, where the Hindu community is the majority. Still, other communities also reside in Nepal, making it a truly diverse nation. Muslim population is the third largest population in Nepal (Upadhyay, 2014). In the lap of the Himalayas, this community has been nurtured since the early 14th century (for more than seven hundred years) (Upadhyay, 2019). As a result, the Muslim community has become intimately connected with the climate of Nepal. There are 142 ethnic groups, 124 languages, and ten religions were reported in the 2021 census in Nepal (CBS, 2023). The Hindu religion constitutes 81.19% of the total population. The second largest population is constituted by Buddhists, who make up 8.21 per cent, followed by Islam at 5.05 per cent, and Christians at 1.76 per cent (Central Bureau of Statistics [CBS], 2023). The Muslims of Nepal have been presented in various categories such as Kashmiri Muslims, Tibetan Muslims, Indian Muslims, Terai Muslims, Pahari Muslims, Newari Muslims.

In the academic discussions, the Muslim community has been discussed broadly through the representation of Terai Muslims. Although Nepal is roughly divided into three regions, the Terai, Hills and the Himal, Nepali Muslims are identified primarily through the lens of Terai Muslims, whereas Hill and Himal Muslims remain separate to this day. The Muslim community residing in the Gorkha district of Nepal, a prominent hill area within the Himalayas, remains significantly neglected in contemporary academic and socio-political discourse. This study is thus dedicated to an intensive examination of the experiences and dynamics of these Pahari Muslims.

Sufism: Religious Mysticism

The mystical branch of Islam is Sufism; it emphasizes inner purification, divine affection, and a personal, intuitive experience of the Creator, Allah. Sufism associated with the cultural regions such as Iran, Iraq, Turkey, India, Bangladesh and Pakistan, besides, Sufism has also heartened other geographical areas, including Nepal also. It is considered that 'Sufism is the heart of Islam, as Sufism emphasizes love'. Love is in the core of Sufism, Sufi ideology conceives the phenomenon oneness, humanity, and unity of the world (Imtiaz 2002). The Tasalluf is the technical terminology of Sufism, means who belief the tariqa of Sufism. It is the mystical branch of Islam that emphasizes inner and personal experiences of

the divine, connection with Allah as well. Prominent Sufi of the Nepal Himalayas includes Hazrat Miskeen Shah (Kathmandu), Hazrat Khwaja Mian Sahib (Kathmandu), Hazrat Makhdum Shah (Banke), and Baba Hazrat Tajuddin (Rautahat).

The Southern area of Nepal, Terai is relatively more documented along with Sufi shrines and traditions. In addition, the hill areas of Nepal Himalaya, extending from the central mid-hills to other parts of Western Nepal, the presence of Sufism relics is understudied and researched and habitually hidden by dominant narratives and discourse focused on Hinduism and Buddhism (Parajuli & Paudel 2024).

Historical Perspectives of Sufism in Nepal

Sufism has also reached South Asia, as well as Nepal, alongside the spread and expansion through trade, conquest, struggle, and the spiritual aspect of its mission (Lewisohn, 1999). The Sufi saints like Khwaja Moinuddin Chishti and Nizamuddin Auliya became key figures in spiritual and cultural integration in the India-subcontinent as well as in the South Asia. Sufism likely arrived in Nepal through trade routes and the influence of neighbouring regions, especially North India. Sufi saints and traders from areas such as Kashmir, Bihar, and Bengal travelled through the Terai plains and settled in areas like the Kathmandu Valley, Banke, and Kapilvastu. These saints were renowned for their humility, wisdom, and healing abilities, often attracting followers across religious boundaries. The Chishti and Qadiri Sufi orders, prominent in India, spread to Nepal and became renowned for their message of love, tolerance, and service.

The Islamic and Sufi influences initially entered Nepal through its western and southern parts. In the past century, historical trade routes that connected the Indian subcontinent with Tibet usually passed through Nepal's hilly regions, predominantly through trans-Himalayan trade hubs such as Kathmandu, Gorkha, and Mustang of Nepal (Pande, 2017). These routes not only transported goods but also ideas, ideologies, and practices, including Islamic philosophy, principles, teachings, and Sufi culture and practices.

Historical records indicate that a few Muslim traders and spiritualists began to settle in hill towns, forming small but significant and influential communities. In the most cases, these individual people were believers of Sufism and Sufi dervishes, and they gained local honour, respect and space of being due to their spiritual conduct, healing and curative capabilities, peaceful attitude and pedagogy of teachings as well as learning (The Kathmandu Post, 2015). Gradually, over time, these perspectives began to influence, impact, and impress the mystical practices of local inhabitants, particularly as they integrated with the existing culture, traditions, and belief systems. The Sufi beliefs have influenced music of Himalaya and art through qawwali. The Urs festivals (celebrations of Sufi saints) take people together for music, prayer, and shared ceremonial feasts. The manifestation of Sufi dargahs has enriched Nepal's architectural and cultural heritage.

Principles of Sufism and its Roots in the Hill Regions

This is well known regarding the different tariqa or orders of Sufism, unlike the Chishti, Qadiri, Naqshbandi, Bektashi, Khalwati, Shadhili, Suhrawardiyya, Ba'Alawiyya, and others (Dehlvi, 2010). Among the different orders, mostly Chishti and Qadiri orders are found in the Terai. Besides, the hill regions have smaller, more fluid spiritual ancestries, which are

basically and often centred around a single Sufi or family lineage. These tariqa and orders performed without the formal structure and hierarchy typically seen in larger Sufi systems and culture.

Among the known Sufi ancestries in Nepal's hills are Chistiyya lineage and localized Sufi Shrines. It is said that the Hill Chishtiyya Lineage spread through some Chishti practitioners who moved from the Indian subcontinent into western Nepal, carrying with them traditions of dhikr (remembrance), sama (spiritual music), and langar (community meals) (KC, 2021). Besides, localized Sufi Shrines known in the areas such as Palpa, Syangja, and even in the as far north as in the parts of Dolakha, oral history and local worship practices suggest the existence of respected Muslim saints, around whom unceremonious and informal Sufi practices and traditions has grown. Although there is the lack of formalized tariqas and Sufi orders that does not imply the absence of Sufi ideology. Rather, these hill-based mystical traditions particularly adapted Sufi philosophy into the local contexts, forming hybrid spiritual practices and culture.

Cultural Synthesis and Syncretism

The hallmark of Sufism increased globally and has been its ability to integrate with local cultural, religious contexts and tradition. Interestingly, in Nepali hills, this syncretism has taken place on unique structures and forms. Many of the hill communities followed a blend of Hinduism, Buddhism, animism, and local spiritual traditions. Sufi saints, usually considered as holy person, were captivated into this spiritual fabric (Sutra Journal, 2016). Their pedagogy of teachings associated with respect and on divine love, unity, and care vibrated with local beliefs and values.

It is not uncommon in some hill temples to find a mutual space where local people, regardless of religion and beliefs, light candles and offer flowers to a Sufi saint's resting place. The folk songs and stories speak of holy person with amazing influences who healed the sick people and mediated the village conflicts, and examples of these have been identified by oral historians as Sufi practitioners. This cross-cultural fertilization has created a distinct religious and spiritual landscape, where Sufi ideology, values and culture lived not through formal only Islamic theology, but through practices, folklore, and daily livelihood. The Kalika temple is a living example of this practice, where Muslim was the key to decorate the Hindu god/goddess and Brahmin is the priest.

Beliefs, Rituals, Traditions and Practices

There was a lacking of the institutional structure of Sufi centres in the hill; the hill regions enhanced a diversified perspective of Sufi centric and influenced rituals as well as Traditions. Such as,

Dhikr Get-togethers: It is an informal and sometimes unseen, these gatherings is a complex of chanting or meditative praying concentrated on the names of creator.

Healing Traditions: Particular local Sufi saints, locally called Fakirs or Babas, performed healing rituals, using prayers, water rituals, and local herbal medicine. In Kathmandu, Nepal Baba Miskeen Shah is a big name in this regard.

Shrine Anniversaries: Annual events celebrating a saint's death anniversary (Uurs) featured shared meals, music, tunes and folktales that are coined with mythology. For example, the Urs of Baba Miskeen Shah is celebrated every on 4th of February (17th day of Jumada al-awwal) every year.

This is to know that in many instances, these practices were combined and integrated with the Hindu and Buddhist rituals, creating a pluralistic spiritual culture and environment. In the western Nepal where the saint is simultaneously respected as a Muslim Fakir and a Hindu Baba is a striking example of shrine.

Roots, Oral Traditions and Local Narratives

Because of the insufficient of written texts, much of Sufi-saint's history in the hills is kept preserved through oral traditions. The local legends, folktales, songs and specifically mention a "Peer Baba" or "Musalman Jogi" who used to help the local people and community. In the Gorkha villagers narrate the stories of Muslim saints who used to mediate during the crisis and brought rain when it is droughts, and offered direction in dreams. These popular narratives, while sometimes mythologically represented, indicate a long-standing spiritual presence of Sufi-saints. Elderly ones and oral historians are the main key sources of reconstructing these hidden histories, and also describe the insights into how Sufism mitigates the collective desires of the hill Muslims.

Oral Tradition and local Narratives

For the purpose of the research, I conducted fieldwork in 08 villages of Gorkha district mostly and in Gorkha city. The villages are Aruswara, Belmisauni, Deragaon, Ahle Vanjeng, Manpur, Gaikhuro, Kokhe Ale Vanjeng, Nibel, Jhintang Asrang and Gorkha city respectively. The villages are ancient, with Muslim populations living here for 700 years in some areas. There are many opinions about where they came from and settled here. According to historians, they first came for business purposes during the reign of King Ratan Malla. Again, during the reign of King Prithvi Narayan Shah, the king brought them to Gorkha to teach them the techniques of making weapons. Their arrival is now beyond dispute. Rather, they now claim themselves as Gorkhas, Gorkhalis, and Nepalese, because the Muslim villagers are not interested in their arrival and departure. Instead, they recall that their ancestors were buried in this Gorkha soil, and they believe that their next generation will be buried here.

A multidimensional reality has also been observed regarding the practice of Islam and Muslim culture. According to Muslim villagers, even 60 or 70 years ago, there were no madrasas or mosques in the villages to provide Islamic education. People from all the villages would go to Gaikhuro village and pray there. But now there are madrasas and mosques in each village. They were accustomed to the Himalayan mountain culture the long since ago and used to wear tilak on their heads like the Hindu community during various festivals, and even went to temples regularly, although there is no scope for generalization in Nepal's temples like the temples in Bangladesh. Incidentally, they mentioned the "Kalika Temple" located in Gorkha. The Protima of the Kalika Temple have been decorated by the Muslim community for generations. Although Hindu Brahmins used to perform the original puja, Muslims no longer do so, as it is incompatible with Islamic practice.

The Muslim community said that everyone here was originally a follower of Bareilly (Sufi shrine). In this context, they gave the example of Bareilly Mosque in Kathmandu and the shrine located there. The Muslim community was previously interested in music, but over time, their attachment to them has been eroded. Many Newar and other Hindus have converted to Islam, inspired by the Bareilly (Sufi) ideology. They said that although there is no significant shrine or dargah in Gorkha district, their ancestors were followers of Bareilly ideology. In the same context, they also said that they used to take out tazia processions in the past, but now they do not do that. As a result, although direct data from field work highlights the reality of the dominance of Sufism, other Islamic ideologies, including Sufism, are currently noticeable among them.

Maulana Mr. Kafil Mia (fictitious name), Imam of Jama Masjid in Asrang village, said, "We were not so aware of Islam earlier and were used to the hill Hindu culture. Our ancestors were Bareilly (Sufi) ideologues and had good contacts with the Sufi world of India. I was the first person from Gorkha to win first place in a Qiraat competition in the Middle East, and at that time I was studying in a madrasa in Uttar Pradesh, India. From there I became a Hafiz of the Quran." While discussing regarding Islam and Muslim, the reference of the poem presented in the introduction came in the light of Sufi mysticism as a cultural and devotional frame that reflects the idioms of Sufi spirituality circulating in the Himalayan Muslim milieu, it offers an ethnographic entry point into the themes of divine unity, mystical love, and spiritual equality.

The head of the madrasa of Deragaon village, who is called Nazir, was spoken to. He said that in Gorkha district and in the hills, all communities, including Muslims, live in an incredibly beautiful harmony. He also added that the light of Islam was not as visible in these Himalayan Mountain as it is now. Maulana Mohammad Kalam Uddin (fictitious name) said, "I was the first Hafiz of the Quran in Gorkha district. After becoming a Hafiz, I spent a few days in the Middle East and then served at the Ahal-e-Bhanjeng Madrasa for two years. I have been serving as the Nazir (headmaster/principal) of this madrasa for five years. The government pays my salary and allowance. The government built this madrasa and mosque. There are no such big madrasas in this area. Children from different villages come here to study. During the construction of the madrasa, all the villagers brought bricks, stones and cement themselves without any wages. You see, it is a mountainous area; there is no easy way to reach anything here. We were all Bareilly followers once. They are the ones who taught us Islamic teachings for 500/700 years. Their words were once revered here. With the passage of time, the development and practice of Islamic culture increased here. Muslims are interested in Islamic education; as a result, Muslims are becoming more and more inspired by other ideologies of Islam from the Bareilly ideology. I have a maktab in this madrasa, those who come to the maktab in the morning; they study here and go to school. And those who want to become Quran Hafiz, they study here. Masha Allah! Alhamdulillah! Now we have a great opportunity for Islamic education, culture and practice. Even if you don't find shrines or dargahs in Gorkha, you will find many shrines and Bareilly followers in Kathmandu and the Terai areas mostly. In our area, you will mainly find Bareilly (Sufi) and Jamaat (Tablighi Jamaat) followers. But earlier, everyone here was Bareilly followers."

The statements of both the Maulanas were echoed in all the villages. The researcher found a similar picture among the Maulanas, Imams and residents of all the mentioned villages. Here, the residents of Gaikhuro and Manpur villages are all followers of Bareilly and the two villages are known as Bareilly villages in the area. The researcher attended a mahfil gathering in Manpur, also known as Bareilly village, and there he saw the dominance of Sufism. The villagers knew the Sufi of Bangladesh, Mr. Mizanur Sahib, even if they did not see him. Not only in Manpur village, but in all the villages studied, people knew his name. He went to Aru Ghat, a 2-hour drive from here, to a Muslim family, whose two sons are being studying in Bangladesh and renowned doctors now here. The villagers said that Mr. Sufi Mizan contributed to his becoming a doctor. He is praised as a Sufi Mizan in all the mentioned villages.

Walking through Gaikhoru village, you will realize that it is a very old village. Every person in the village is a believer except Sufis and believes in the tradition of shrines and dargahs. Upon meeting a family in this village, the researcher learns that family members have been involved in teaching and local government for the past four generations.

Currently, a 5th generation teacher is the president of Bhim Sen Thapa ward of the local government. A 5th generation ago, his father was the head of the panchayat in the area. That responsibility is now being fulfilled by his successor Mr. Alim Ullah Master (fictitious name). He is very popular in all the neighbouring villages as well as the 08 villages mentioned in the area, which I have witnessed in every village. It is worth noting that he is the one who basically establishes a connection between the researcher and all the villages. Due to that connection, it becomes easy for the researcher to move freely in the studied area. The structure of the village displays a clear message of Muslim cultural practices. When I spoke to the residents of Gaikhuro village, they highlighted the traditions of their ancestors and the history of this village in spreading Islam. They said they do not want to get into this debate about when or where they came here, but rather they feel comfortable with their Nepali and Gorkha identities. And this village is spreading and practicing Islam through the Gorkhas. For the past 5/6 generations, they have been serving as the heads of the local society, regardless of their caste, creed, religion, and religion. And they want to continue this trend. It is on the path shown by them that the movement of Islam and the flag of Muslims are moving here, which was founded by following the Bareilly ideology (Sufism). They believe in keeping this faith and order intact. Incidentally, they talked about the Jama Masjid in Kathmandu, the capital of Nepal, and mentioned that the Bareilly Jama Masjid is located near the king's palace. And this mosque is the largest and oldest mosque in Nepal, although later another Jama Masjid was established next to it in Kathmandu, which is called Nepali Jama Masjid. The Bareilly Mosque is also known as the Kashmiri Jama Masjid or Bareilly Mosque.

There is a strong presence of Muslim residents in all areas including Gorkha Bazaar, Old Bus Stand, New Bus Stand, and New Bazaar. Muslims have a significant presence in mosques, businesses, commercial establishments, residential houses and buildings in Gorkha town, although they are significantly less in number. But Muslims say that they live in harmony here and they do not feel any division. The researcher met the ward head in the 4-storey building of Gaikhoru village in Gorkha Bazar, that building itself. Although we both

have met and discussed several times earlier, he said, "I am serving as the ward president for the second time. I have to be very busy, everyone comes and I extend a helping hand to everyone. There is an internal distance between our Muslims here, between the two ideologies of Bareilly and Jamaat. He added that their role in the spread of Islam until the arrival of Tableague Jamaat, and they are still doing same. We, basically Bareilly people, love and practice Sufism, i.e., respect humanity and other ideologies. Here, all communities respect each other equally and live with mutual values. It cannot be said that there are no small problems, but we can overcome them. For example, there was a problem with a village cemetery, later our local government provided money to build a boundary wall there and resolved the problem through discussions. Alhamdulillah! We want to live like this."

The overall discussion and information obtained has revealed a long presence of Sufi ideology in Gorkha district. Due to Sufi humanity and respect, Muslim culture stands out in the cultural landscape of the hill country in multi-ethnic and multi-lingual Nepal. The Muslim population has increased from 2 percent in the past to 5 percent now. This growth represents the acceptance of Muslim culture and Islam, the seeds of which were sown by Sufi ideology. The presence of Islam in the foothills of the Nepalese Himalayas and the Muslim community's walk in embracing the hill culture is a good example of Sufi ideology. Therefore, the hill Muslim community of Nepal is a perfect example of Sufi ideology, where Sufism and Islam stand tall despite the multifaceted caste and linguistic divide.

DISCUSSION

Through music, art, ritual practices, belief systems, and everyday social ethics, the influence of Sufism on the cultural and religious fabric reflected on Pahari Muslims in Nepal. The examples of culture and rituals provide the facts of how Sufi traditions blended with Himalayan cultural forms.

Influence of Sufism on Local Music and Oral Performance Traditions

One of the influential cultural imprints of Sufism appears in musical traditions across Manpur, Gaikhuro, Belmisauni, and surrounding villages. Elders repeatedly recalled mahfil gatherings featuring qawwali inspired performances. While rooted in Sufi devotional music, these sessions incorporated local instruments such as madal, tyampo, and sarangi, which blending Sufi rhythmic repetition with Nepali folk melodies. Lyrics invoking divine love and humility were performed in mixed Nepali and Hindustani linguistic, showing how Sufi poetry became embedded in local musical consciousness. Even though such performances have declined, their emotional memory continues to shape identity and nostalgia among the older generation.

Influence on Art, Architecture, and Material Culture

Sufi aesthetics also shaped visual and material culture. A powerful example is the Kalika Temple in Gorkha, where Muslim artisans historically decorated Hindu deity images using geometric floral motifs characteristic of Sufi artistic traditions. This cross religious artistic collaboration embodied Sufi ethics of service (khidmat), humility, and harmony. Additionally, households in Gaikhuro and Deragaon maintain tabeez (amulets) and wooden

calligraphic plaques blending Islamic verses with local carving techniques, showing a fusion of Sufi protective practices with Himalayan craftsmanship.

Ritual Practices Shaped by Sufi Traditions

Dhikr gatherings, once common across the studied villages, provided communal meditative spaces through rhythmic chanting. These attracted not only Muslims but also Hindu and Buddhist neighbors who appreciated their calming, healing atmosphere. Healing traditions associated with Fakirs or Pirs, prayer for water rituals, herbal cures, dream divination, conflict mediation mirror South Asian Sufi healers and played central roles in local spiritual life. Commemorative feasts, Urs-like gatherings, and shared meals further show how Sufi ritual forms adapted to the Himalayan context.

Influence on Belief Systems and Social Ethics

Sufi idea of divine love, humility, compassion, and unity inform the ethical life of hill Muslims. Field narratives describe earlier generations participating openly in Hindu rituals, applying *tilak*, visiting temples, and maintaining ritual simultaneity. Inter-marriage based networks, communal labour systems, and multi-generational leadership roles, such as that of Alim Ullah Master's family demonstrate Sufi-influenced ethics of service, harmony, and shared responsibility. These ethical values continue to underpin interreligious coexistence.

Fieldwork across the eight villages revealed widespread acknowledgment of Sufi heritage. Residents of Manpur and Gaikhuro identify themselves as Bareilly influenced Sufis. Maulana Kafil Mia and other local Imams described how earlier generations practiced a culturally embedded Sufi Islam long before formal Islamic education arrived. Mention of qawwali, *tazia* processions, shrine visits, and the influence of Sufi figures like Baba Miskeen Shah and Sufi Mizan provides direct evidence of Sufism's historical dominance.

Challenges and Limitation

The impacts of modernization, urbanization and migration are playing vital role among the Hill Muslims of Nepal. The new generation of Muslim community is creating a detachment with the traditional practices as well as Sufi saints' rituals. Besides, there are significant of revival also through the eagerness in religious tourism, digital platform and interfaith initiatives. Curiosity in religious tourism has developed a new phenomenon among the generation about local spiritual shrines and mystic history. The digital webs are also playing key direction to document oral history of Sufism, Sufi music and ideology. As a peace building tool Sufi values are contributing to develop interfaith initiatives among themselves. The challenge is how the contemporary changing reality will be treated by keeping in mind the Sufi principles of love, humanity, unity and inner transformation.

The hill Muslim community of Nepal is experiencing significant shifts that challenge the continuity of its longstanding Sufi traditions. The young generations are gradually keeping distance themselves from practices such as *dhikr* gatherings, qawwali *mahfil*, *tazia* processions, and shrine centered rituals that were once common in villages like Manpur and Gaikhuro. The rise of reformist movements, particularly the Tablighi Jamaat has further reshaped religious identity, reducing participation in syncretic traditions such as visiting temples, applying *tilak*, or engaging in mixed festivals.

Digital platforms create both revival and risk, while young villagers learn about Sufi figures like Sufi Mizan through online media; they are equally exposed to global reformist discourses that discourage local mystical practices. Meanwhile, emerging religious tourism and interfaith initiatives offer new spaces to reinterpret Sufi values, yet these efforts remain fragile amid internal ideological divides.

CONCLUSION

Sufism in Nepal presents silent but sustainable spiritual perspectives. Though there is an absence of formal institution, but Sufism has developed through devotion, cultural pluralism, humanity and oral transmission. The impacts of Sufism can be understood through shared worship arenas, local heroes, folk culture, rituals, and unity across beliefs.

Maulana Khalid Azhari, who studied at Al-Azhar University in Egypt and is currently the Imam of the Gaikhuro Jame Mosque, said in a conversation with him at the mosque, "We have been living in this Gaikhuro village for more than 500 years. The propagation of Islam began in this area from here. Islam was propagated in Bareilly style, revived by Sufi ideology. In the past, Muslims of this area used to get vaccinated like Hindus, go to temples, and follow rituals like Hindus. But over time, as the practice and knowledge of Islam increased, we came out of that trend. Just as the current generation wants to know the past, it cannot leave the past under the hegemony of a kind of modern hegemony in its practice. So there is a kind of mixed practice present today. The humanity of Sufism is still remembered with pride by all the surrounding villagers."

If Himalayan Nepal navigates its diversified religious culture and pluralistic identity in this century, the Sufism in the hills would contribute a culture and tradition of inclusive mysticism. Sufism positions as a landmark and testament to the idea of heavenly and divine love that mystic humanity knows no boundary, not of a geography, culture, language, community or creed. The presences of Sufi tariqas like Chishti, Qadiri and Naqshbandi have kept Islamic spirituality alive in the Nepal Himalaya.

The study shows that Sufism entered in the hill regions organically through trade, settlement, interpersonal bonds, and spiritual charisma rather than through formal institutions. Early Sufi saints and Muslim artisans became embedded in the cultural environment of the hills through healing traditions, moral instruction, craftsmanship, and community mediation. Their legacy remains visible in oral histories, symbolic practices, and village level social ethics.

The findings further reveal that Sufi practices significantly shaped the cultural and artistic landscape of the region. Qawwali inspired musical gatherings, shrine-related rituals, the decoration of the Kalika Temple by Muslim artisans, dhikr circles, and the widespread use of Sufi style amulets demonstrate how mystical Islam merged with Himalayan aesthetics, rhythms, and belief systems. These examples illustrate a deeply rooted form of syncretism that integrated Sufi values of love, humility, and unity with Hindu, Buddhist, and animistic traditions. The poem addressed in the introduction glorifies creators Allah's existence and convey the message of his creation of equality.

Sufism also played a pivotal role in cultivating interfaith coexistence. Hill Muslims historically participated in Hindu festivals, shared ritual spaces, and maintained close social ties with non-Muslim neighbours. Even with the rise of formal Islamic education and differing ideological orientations, Sufi ethics continue to guide leadership, communal labour, and everyday interactions, particularly in long-established villages such as Gaikhuro and Manpur.

Sufism in the hill Nepal represents a quiet lasting spiritual presence. It survives not through large institutions but through stories, rituals, healing, music, ethics, and everyday life. This study demonstrates that the legacy of Sufi ideology continues to shape the cultural imagination of the Himalayan foothills, standing as a testament to mystical love, pluralism, and the universal search for divine connection in terms of lived Islam.

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