

## **Gender Dynamics in Disaster Response: A Review of Coastal Regions in Bangladesh**

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### **Abstract**

Bangladesh's coastal regions are increasingly exposed to climate-induced disasters, with women and gender-diverse populations bearing disproportionate impacts due to entrenched socio-cultural norms, economic marginalization, and exclusion from institutional decision-making. This review critically analyses the gender-specific challenges related to disaster response in coastal Bangladesh while investigating both exposed areas and adaptive capabilities. The paper uses academic research and real-world and policy-oriented evidence to explain how disasters increase gender inequalities by limiting mobility and creating health risks while damaging the economy and increasing rates of gender violence. Alongside this analysis the research illustrates how women perform crucial duties beyond recognition such as home care and warning transmission and adaptive sustenance management and local community guidance. This assessment identifies multiple gender integration gaps alongside problems with data systems along with budgeting deficiencies and absent accountability systems. The paper ends with applicable solutions to advance inclusive disaster risk reduction (DRR) that stress both intersectional strategies and gender-sensitive budgeting requirements and institutional development and workforce training. The research establishes that women empowerment serves both legal rights protection needs and core requirements for establishing climate-resistant communities throughout Bangladesh.

**Keywords:** Gender and disaster, coastal Bangladesh, disaster risk reduction (DRR), climate vulnerability, resilience, women's leadership, institutional response, intersectionality

### **1. Introduction**

Bangladesh, located in the low-lying deltaic region formed by the confluence of the Ganges, Brahmaputra, and Meghna rivers, is one of the most disaster-prone countries in the world (UNDRR, 2022). The country's southern coastal belt — stretching across districts like Satkhira, Khulna, Bagerhat, Barisal, and Cox's Bazar — is particularly vulnerable to climate-induced disasters including tropical cyclones, tidal surges, floods, river erosion, and saline water intrusion (Huq et al., 2015; Islam et al., 2022). Between 2000 and 2020, Bangladesh experienced over 200 climate-related extreme events, resulting in significant human and economic losses (German watch, 2021).

Within this context, Gender works as a fundamental element which shapes both the amount of danger exposure and potential response abilities and potential recovery pathways. Disasters show no neutrality in gender distribution because discrimination from existing social inequalities increases the risks for women along with marginalized gender groups through their limited resource availability and cultural barriers and exclusion from decision making structures according to Nasreen (2008) and Enarson & Morrow (1998). The coastal communities of Bangladesh encounter multiple forms of disadvantage for women which combines cultural gender norms with economic poverty and traditional gender affiliation systems (Fatema et al., 2023). Women and children suffered increased death and displacement rates than men during large cyclones Sidr (2007) and Aila (2009) according to Ikeda (1995) and Paul and Dutt (2010). Studies conclude this difference in survival rates resulted from three main causes which included limited movement capabilities combined with delayed evacuations linked to family duties and insufficient shelter facilities throughout cyclone shelters (Alam & Rahman, 2014; Azad et al., 2013). Women and adolescent girls encounter multiple health difficulties along with increased gender-related violence while experiencing early marriages following catastrophic events (UN Women, 2016; Kamal et al., 2020). Although the story primarily focuses on victimization there are additional aspects that do not follow this single frame. Research has drawn attention to the essential yet hidden work women perform in disaster readiness alongside warning distribution work and care provision and resource sustainability and community strength development (Nasreen, 2020; Haque et al., 2018). Women within local social networks as well as informal labor teams and independent support organizations lead through community leadership when institutional backing fails to materialize. The main components of disaster management policies in Bangladesh show limited progress when it comes to adopting gender-sensitive procedures. While the National Plan for Disaster Management 2021–2025 includes gender-Specific references it shows limited application in practical field activities that largely remain symbolic (MoDMR, 2021). The current disaster risk reduction (DRR) framework needs immediate gender-based understanding and documentation in order to achieve necessary integration of specific solutions and challenges for both genders. The investigation objectives of this review paper focus on gender-based analysis of disaster response within Bangladesh's coastal regions. It explores: The context of crises exposes distinctly different forms of risk to female and male populations. b) women's roles in response and recovery, c) barriers to equitable participation, and d) policy and institutional responses to gender inclusion in DRR. This paper uses academic literature combined with policy documents and field-based studies to connect existing knowledge while recommending evidence-based strategies for inclusive disaster governance within Bangladesh's high-risk areas.

## **2. Literature Review**

### *2.1 Gender and Disasters: Theoretical Foundations*

Since the 1990s disaster management research has focused on gender issues because scholars demonstrate that disasters create different outcomes for demographic groups (Enarson & Morrow, 1998). Feminist disaster studies determine that exposure to hazards represents just one factor of vulnerability because this exposure deeply stems from power dynamics and traditional

gender norms together with existing social structures (Bradshaw 2015). Gender influences the way people gain access to available resources while controlling their ability to move around and participate in decision-making structures and affects how they perceive dangers (Cannon 2002 and Wisner et al 2004). The “gendered vulnerability” model demonstrates that Global South women specifically remain at higher risk during disasters because of their traditional caregiver responsibilities and restricted economic autonomy and restricted participation with institutional programs (Ravera et al., 2016). The risk levels that women face depend significantly on their age along with disabilities and their social class standing and marital status and ethnicity background (Fordham, 2003). Yet gendered resilience theory supports a different understanding by focusing on women's capability to lead and their strategies for survival and their leadership in disaster recovery work (Arora-Jonsson, 2011; Gaillard et al., 2017). The theoretical framework based on gender dynamics has shaped the Sendai Framework for Disaster Risk Reduction 2015–2030 through its requirement for gender-responsive approaches to disaster risk reduction (UNDRR, 2015).

### *2.2 Gender Dynamics in Disaster Response: Global Evidence*

Several worldwide examples of disasters have confirmed that gender directly affects how such situations affect people. The 2004 Indian Ocean tsunami examined through Oxfam data revealed women constituted about 70% of all dead victims in particular areas (Oxfam, 2005). Black single mothers faced both substantial forced migration along with incredibly long-term struggles to rebuild during Hurricane Katrina (USA) according to Elliott and Pais (2006). Studies show social vulnerabilities exceed geographical positions when it comes to determining disaster effects. Research confirms that exclusion of women from authority structures in disaster management reduces their ability to take part in agenda development since they function as primary caregivers and food providers while restoring community support networks (Delaney & Shrader, 2000). Women suffer increased gender-based violence and unpaid labor along with psychological trauma and higher incidents of violence in disaster-affected environments (UN Women 2016 and IFRC 2020).

### *2.3 Bangladesh-Specific Literature*

The extensive research about climate vulnerability in Bangladesh lacks balanced gender analysis in the field of disaster studies. Since 2008 and again in 2020 Nasreen established herself as a leading figure in gender-disaster research throughout Bangladesh through her examination of how women's caretaking responsibilities enhance their disaster exposure and illustrated disaster roles. Studies conducted after Cyclone Sidr and Aila revealed women faced higher death rates because they were limited in mobility and received minimal disaster warnings or lived in insufficient shelters (Paul & Dutt, 2010; Alam & Rahman, 2014). Recent research by Haque and Uddin (2023) validated earlier studies by noting that displaced women faced increased risks from sexual violence and food scarcity while dealing with menstrual needs. The literature investigates how women act during times of adaptation as well as demonstrate resilience. Women who preserve seeds and manage family water storage and teach survival skills to children demonstrate adaptive responses according to Ahmed et al. (2020) and Sultana (2010). Female-led community

preparedness committees in Cox's Bazar and Khulna have proven successful at improving both evacuation procedures and early warning system distribution according to Khan (2022) and UNDP (2019). Various research investigations have pointed out that the lack of gender awareness during disaster policy implementation in Bangladesh remains a serious concern according to MoDMR (2021) and Fatema et al. (2023). Reliable evidence about structured training and budget allocation and gender outcome monitoring for local government remains absent in the National Plan for Disaster Management's (2021–2025) gender integration objectives (Shirin, 2021).

#### *2.4 Gaps in Existing Research*

Academic research demands to move past simplistic women-victim perspectives by developing analytical methods which can show how various social identities line up with disaster impacts particularly involving disability and widowhood and age differences. Lack of research about non-binary and LGBTQ+ populations in disaster frameworks creates an important knowledge gap when conducting inclusive risk analysis (Hossain et al., 2021). Field research about cyclone impacts primarily focuses on Satkhira and Khulna districts while demonstrating minimal cross-regional or longitudinal assessment of recovery. Researchers have yet to establish a clear understanding about how population movement through migration together with monetary and technological resources affects disaster resilience patterns segmented by gender.

### **3. Gendered Vulnerabilities in Coastal Bangladesh**

#### *3.1 Socio-Cultural Constraints on Women's Mobility and Safety*

Traditional gender norms together with patriarchal beliefs create severe barriers blocking women in many Bangladesh coastal areas from having freedom of movement during emergency situations. Women face deadly limitations in times of fast disaster strikes including cyclones because cultural society demands they need male authorization before traveling or showing themselves in public (Nasreen, 2008; Alam & Rahman, 2014). Women stayed at home after Cyclone Sidr in 2007 because their male household leaders did not return from work and they felt ashamed about sheltering together with men inside mixed-gender locations (Paul & Dutt, 2010). Early warning systems are technologically advanced in many regions but they fail to provide accessible information to women until today. The access limitations to mobile phones or radios and community bulletin boards primarily control men who maintain responsibility for warning dissemination about evacuation orders and shelter routes (Haque & Uddin, 2023; IFRC, 2020). The safety of women remains compromised in environments that develop after disasters occur. Cyclone shelters which have insufficient gender-separated areas develop higher rates of sexual violence and mental burden and privacy violations (Islam & Hasan, 2022). The current shelter environment drives women and adolescent girls away from using the available facilities due to discriminatory conditions.

### *3.2 Economic Insecurity and Livelihood Disruption*

The women in coastal areas support their economic survival by working informal activities that include shrimp farming and fish drying together with handicraft production and farming but these activities easily fall prey to climatic surprise events (Khatun et al., 2020). The sectors which mainly employ women lack both recovery resources and social protection systems during disastrous events. Female household leaders encountered more obstacles when seeking post-disaster payments and microcredit as well as wage employment opportunities than their male counterparts in Patuakhali and Bhola according to Fatema et al. (2023) research. The combination of complex administrative procedures with insufficient documentation and discriminatory inheritance laws prevents women from accessing relief programs and recovery initiatives as per Sultana and Mallick (2015). Many families had to move from their homes because of climate-caused saltwater intrusion which resulted in women taking on extra responsibilities to take care of their households and families in damaged resource areas (Rabbani et al., 2013, Alam et al., 2017). During these situations women encounter problems in securing food and water while experiencing diminished support from the community which makes them more defenseless.

### *3.3 Health and Reproductive Risks*

Displacements together with disasters intensify the existing health problems faced by women who require maternal and reproductive healthcare. Most cyclone shelters and temporary housing lack adequate water, sanitation, and hygiene (WASH) facilities. Women together with adolescent girls encounter severe challenges in managing their menstrual cycles while seeking basic privacy needs and receiving gynecological treatment (UN Women 2016 and Haque et al. 2018). The study conducted by Kamal et al. (2020) within Barguna and Satkhira regions found that Cyclone Fani displaced women suffered from urinary tract infections and developed anemia alongside reproductive system damage due to stress. During flood events and storm surges pregnant women experience severe threats of death by facing prolonged delays to receive medical help in locations lacking sufficient medical infrastructure. Hossain and Rahman (2023) found that women typically develop psychological trauma along with post-disaster depression because they suffer from violence along with losing their children or spouses and witnessing their homes destroyed. Women receive minimal mental healthcare service in patriarchal societies which leads to the dismissal of their emotional distress.

### *3.4 Gender-Based Violence and Social Stigma*

After disasters struck the numbers of incidents of gender-based violence (GBV) elevate at substantial levels. Multiple research studies focused on Bangladesh's coastal districts document growing household violence as well as rising occurrences of forced marriages and sexual assault during times of population movements and reconstruction (Akhter & Choudhury, 2022; Mizan & Rezwana, 2023). Women face impaired access to legal assistance coupled with community discrimination and threatened security which prevents them from seeking help. During times of disaster community leaders use religious explanations to justify disasters which strengthens gender stereotypes and prevents women from accessing justice (Sultana, 2010). After economic

crises happen following disasters, adolescent girls typically get married early which results in long-term social risks to them (UNFPA, 2021).

#### **4. Women's Roles in Disaster Response and Recovery**

The direct and essential role women from Bangladesh's coastal areas perform during disasters goes against typical disaster victim depictions of women although their contributions remain underappreciated. These roles encompass caregiving activities and household duties together with active community leadership which results in family along with community survival during disaster times (Nasreen, 2020; Ahmed et al., 2021).

##### *4.1 Informal First Responders*

Women take on primary disaster response roles through their essential responsibility of providing dependents with food and water and healthcare needs. After Cyclone Aila struck in 2009 many reports documented women who saved children and elderly family members and defended their dry food stores while giving medical care to their sick with their ability to navigate through the destruction of homes and buildings (Paul & Dutt, 2010). Herbal medical expertise and natural storm forecasting abilities along with domestic water sterilization methods enable women to provide vital aid to their families in the absence of formal assistance (Alam et al., 2017). By delivering medical attention to injured individuals women reduce the quantity of work that faces local health centers and emergency services units.

##### *4.2 Household Resource Management*

The deficiency of resources transforms into the primary issue which follows all disasters. Women carry out essential responsibilities which include managing food rations together with water recycling and seed preservation alongside domestic peacekeeping duties. Women from Khulna solved their water shortage problem by reusing rainwater and waterproof-sealed storage of food supplies which allowed children to have one meal per day after the cyclone according to Khatun et al. (2020). Women also mobilize social capital. When relief is slow to arrive or inadequate women collaborate with neighbors so they can share necessary information and coordinate childcare arrangements along with group food preparation. Through their informal support networks these systems help families to stay safe until formal assistance networks function properly (Sultana, 2010).

##### *4.3 Leadership in Community-Based Organizations*

Women participate in leadership positions of local community-based organizations (CBOs) through support from NGOs who run capacity-building programs as per the United Nations Development Programme (2019). Women's groups have successfully led:

The distribution of cyclone early warnings occurs through loudspeakers and home-based outreach for better community comprehension.



- **Distribution of emergency supplies and hygiene kits**

The efforts of female volunteers resulted in the development of programs for risk assessment along with shelter administration systems.

- **Advocacy for gender-segregated sanitation in cyclone shelters**

The Cyclone Preparedness Programme trained women in Bagerhat and Cox's Bazar to direct household evacuation procedures and operate first aid centers during Cyclone Bulbul in 2019 as per Khan (2022).

#### *4.4 Psychosocial Support and Emotional Labor*

The weight of emotional care that women perform in disasters remains undisclosed yet vital throughout disaster duration and recovery periods. In their role as caregivers women support relatives in coping with difficult emotions and traumatic events as well as uncertain situations. Women who have lost loved ones step forward to become emotional supports which helps both social connections and family survival according to Haque et al. (2018). Women established prayer groups together with storytelling events and casual counseling sessions in Patuakhali to provide essential support for children and elderly people who experienced traumatic events from both aspects (Akhter & Choudhury, 2022).

#### *4.5 Livelihood Recovery and Skill Diversification*

The ability of women to adapt their economic practices remains prominent after natural disasters. After disasters coastal women choose different ways to earn money that they adapt depending on disaster impacts by moving from agriculture to sewing and food vending and aquaculture and poultry farming (Sultana & Mallick, 2015). The transition of affected communities arose through NGO and microfinance institutions because they provided training and small grants to enable this shift. After saline intrusion destroyed crop cultivation Shushilan NGO provided 1,200 women with business start-up opportunities for fish-feed production in Satkhira (Shirin, 2021). The establishments enable family members to sustain their lives and provide economic independence to women.

### **Challenges in Recognition**

Despite their multifaceted contributions, women's efforts often remain invisible in official disaster management records. Traditional gender norms, illiteracy, and bureaucratic procedures hinder their participation in formal decision-making and data systems (Hossain & Rahman, 2023). Additionally, their contributions are undervalued or mischaracterized as mere extensions of domestic roles rather than acknowledged as skilled, life-saving labor.

## **5. Institutional and Policy Responses to Gender and Disaster**

During the past two decades Bangladesh's institutions have started acknowledging gender-sensitive disaster management approaches because of worldwide frameworks together with domestic activism along with NGO interventions. Disasters are faced with ground-level

implementation problems that produce inconsistent results and show fragmented progress and symbolic effects. Bangladesh's disaster management policy development for gender equality and the existing institutional structures alongside NGO and international organization support for gender-equitable disaster management systems will be analyzed in this section.

### *5.1 National Policy Landscape*

The establishment of disaster management institutions in Bangladesh experienced major changes after the devastating events of 1988 floods and Cyclone Sidr in 2007. Under the Disaster Management Act (2012) and the National Plan for Disaster Management (NPDM) 2021–2025 the government acknowledges that all stages of disaster preparedness and response must consider gender aspects (MoDMR, 2021). Through strategic goals in the NPDM Bangladesh moves to improve community resilience through gender-aware operational methods and ensure more women become part of disaster management committees. The government of Bangladesh accepts international obligations like the Sendai Framework for Disaster Risk Reduction (2015–2030) and the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), which specify inclusive disaster planning that focuses on both gender and other groups (UNDRR, 2015; CEDAW, 2018). The analysis shows that gender gets regular mentions in official policies despite incomplete measures for operationalization through specific indicators and available funding or accountability procedures (Shirin, 2021; Haque et al., 2018). The staff members serving as gender focal points in disaster management bodies experience three primary barriers when trying to impact district and union decision-making: inadequate training, insufficient authority and scarce resources.

### *5.2 Local Government and Disaster Committees*

The Union Disaster Management Committees (UDMCs) hold the responsibility to create and implement localized disaster risk reduction (DRR) strategies at their operating base. The establishment of policy requirements is not sufficient to achieve equal female inclusion in these committees. A research by Fatema et al. (2023) discovered that 15% of women held membership in UDMC across Satkhira and Barguna region whereas decisions regarding resource allocation and decision-making remained beyond their grasp. Different cultural standards as well as limited literacy skills and the lack of formal positions prevent women from taking part in these platforms according to Akhter and Choudhury (2022). Organizations insert women to their committees primarily because of donor requirements yet these members do not obtain substantive participation in monitoring or planning exercises.

### *5.3 NGOs and International Agencies*

Non-governmental organizations together with UN agencies take a leading role in integrating gender into disaster risk reduction frameworks of Bangladesh. The Pakistani organizations BRAC and Shushilan together with ActionAid and CARE Bangladesh operate community-based programs which enable women to take part in disaster preparedness activities and profession education and sustainable income development. Shushilan's "Resilient Women" project initiated by the organization in Khulna empowered 1,200 local women for salt-tolerant agriculture and



fish-feed business ventures following Cyclone Amphan according to Shirin (2021). Through its Young Urban Women programme ActionAid trains adolescent girls to understand emergency alerts and how to handle disasters and maintain menstrual hygiene in slum and coastal settings (ActionAid, 2020). International organizations including UN Women together with UNDP and IFRC work with the Ministry of Disaster Management and Relief to deliver gender-oriented disaster education while providing monitoring solutions and inclusive shelter design practices (UN Women, 2016; UNDP, 2019). The innovative NGO approaches to disaster management suffer from project fragmentation since they generally detach from the national disaster framework when external funding terminates (Ahmed et al., 2021).

#### *5.4 Gender-Responsive Budgeting and Capacity Building*

The core problem with gender-sensitive disaster governance stems from the continued non-enforcement of gender-responsive budgeting (GRB). Local governments distribute funding for their disaster relief programs without implementing female data separation or systems for fair distribution services. Women face continuous challenges regarding funding for their essential requirements because specific needs such as shelter toilets and menstrual care products along with childcare spaces are inadequately supported (Hossain & Rahman, 2023). Most disaster personnel together with their volunteers do not have access to training that addresses gender-responsive planning. The 2021 Gender in Humanitarian Action Network (GHiA) study evaluated that less than twenty percent of cyclone shelter managers in southwest India received emergency training on gender-based violence prevention together with women's reproductive healthcare services (GHiA, 2021).

#### *5.5 Monitoring and Accountability*

The gender-specific indicators are absent from most monitoring frameworks applied to disaster management operations. Household and community level aggregate assessment results obscure how women and girls face different negative effects. The absence of established procedures allows women to have no official means to report discrimination and violent encounters that happen when disaster relief teams operate (Sultana 2010; Nasreen 2020). The need to fulfill donor reporting requirements forces donors to briefly show gender sensitivity but does not promote enduring changes to structural systems. Gender policy promises rarely become reality because there are no formal systems to track their implementation through gender audits, scorecards and third-party evaluations.

### **6. Barriers and Recommendations for Gender-Responsive Disaster Management**

#### *6.1 Key Barriers to Gender Inclusion in Disaster Response*

Despite increasing global and national emphasis on gender equity in disaster governance, several persistent barriers prevent the full realization of gender-responsive disaster management in Bangladesh's coastal regions. These challenges stem from structural, institutional, and cultural dynamics, many of which are deeply entrenched in the country's development architecture.

#### 6.1.1 Tokenism and Symbolic Participation

While national frameworks like the NPDM (2021–2025) promote female representation in Union Disaster Management Committees (UDMCs), in practice, women are often included only to fulfil procedural requirements. These female members are frequently excluded from real decision-making processes due to internalized gender hierarchies, lack of leadership training, or logistical constraints like meeting times and mobility (Fatema et al., 2023; Haque et al., 2018).

#### 6.1.2 Lack of Sex-Disaggregated Data and Monitoring Tools

Most disaster impact assessments in Bangladesh are aggregated at the household level, which masks the differentiated experiences of women and girls. A 2021 UNDP report found that fewer than 25% of post-disaster monitoring tools used in southwest Bangladesh incorporated sex-disaggregated indicators or tracked access to relief by gender (UNDP, 2021). Without quality data, it is difficult to design tailored interventions or assess gaps in service delivery.

#### 6.1.3 Gender-Blind Infrastructure and Relief Design

Cyclone shelters, water points, latrines, and distribution centers are rarely designed with women's safety and dignity in mind. Women and girls often avoid shelters during emergencies due to lack of privacy, inadequate lighting, or fear of harassment (Islam & Hasan, 2022; Akhter & Choudhury, 2022). Relief distribution models also favor male household heads, sidelining women's immediate needs like menstrual hygiene products, baby food, and reproductive care.

#### 6.1.4 Gender-Based Violence and Inadequate Protection Mechanisms

There is ample documentation of increased gender-based violence (GBV) in post-disaster contexts, especially during long-term displacements (Mizan & Rezwana, 2023). However, Bangladesh's disaster response architecture lacks protocols for GBV prevention or survivor-centred support. Only a handful of cyclone shelters in the country provide women-only spaces or assign female safety volunteers.

#### 6.1.5 Cultural and Religious Restrictions

In many coastal communities, patriarchal religious norms prevent women from participating in public decision-making, cohabiting with non-kin men in shelters, or even receiving emergency aid from male responders (Sultana, 2010). These norms are often reinforced by local imams or elders who wield considerable influence over DRR practices.

### 6.2 *Strategic Recommendations*

To overcome these systemic barriers, gender-responsive disaster governance must go beyond policy rhetoric and engage in transformative planning, budgeting, and accountability. Below are recommended actions at various levels:

**6.2.1 Integrate Gender into Early Warning and Preparedness**

- Develop inclusive early warning systems that reach women through mobile messaging, female volunteers, community radio, and school-based campaigns.
- Train women and adolescent girls as frontline responders and educators in hazard-prone villages.
- Disseminate gender-sensitive DRR materials in local dialects and pictorial formats to ensure comprehension by illiterate women.

**6.2.2 Redesign Cyclone Shelters and Relief Services**

- Retrofit cyclone shelters with separate toilets, bathing areas, breastfeeding corners, and secure sleeping spaces for women and girls.
- Include menstrual hygiene kits, prenatal vitamins, and childcare supplies in standard emergency relief packages.
- Ensure female staff are present at shelters and distribution points, especially in conservative areas.

**6.2.3 Promote Gender-Responsive Budgeting (GRB)**

- Allocate dedicated disaster funds for women-led adaptation projects, safety infrastructure, and GBV prevention.
- Include GRB guidelines in MoDMR planning cycles and local government annual development plans.
- Institutionalize social audits and gender budget tracking to ensure accountability.

**6.2.4 Build Institutional Capacity and Accountability**

- Conduct regular gender-sensitization training for disaster officials, shelter managers, police, and local leaders.
- Establish grievance redress mechanisms (hotlines, mobile apps, and community desks) for women facing discrimination or violence.
- Enforce quotas for female leadership in all disaster committees — from national to ward levels.

**6.2.5 Support Women's Livelihood and Economic Recovery**

- Expand access to microfinance, vocational training, and digital tools to enable post-disaster economic recovery.
- Link women's groups to market networks for climate-resilient products such as salt-tolerant crops or jute bags.
- Facilitate mobile-based cash transfers directly to women during emergencies, bypassing male gatekeepers.

#### 6.2.6 Strengthen Research and Data Systems

- Mandate the collection of sex-, age-, and disability-disaggregated data in all post-disaster assessments.
- Support academic partnerships and NGOs to conduct participatory action research on gendered disaster impacts.
- Develop national-level dashboards tracking women's participation, vulnerability, and recovery metrics over time.

### 7. Conclusion and Future Directions

This research investigates the gender-based aspects of disaster emergency assistance through a thorough analysis of the coastal areas of Bangladesh which encounter multiple challenges between climate change and poverty and patriarchal institutions. Women occupy a two-part role during disasters: they experience maximum risk due to their weak socio-cultural status combined with economic hardship and institutional discrimination. Their ability to overcome challenges is equally impressive because women function as caregivers as well as informal first responders and livelihood strategists and community organizers. National policy implementation bodies as well as disaster management committees fail to recognize the pivotal role women play in daily operations while maintaining an almost complete male leadership structure. The Disaster Management Act (2012) along with NPDM (2021–2025) highlight gender as a central issue but their implementation fails because of insufficient funding along with limited data collection and weak accountability systems and token representation. Numerous NGOs along with international development partners have conducted noteworthy work across training programs and finance delivery and shelter design that includes gender awareness but such isolated project-based initiatives rarely merge effectively with institutional development mechanisms. When governmental ownership is inconsistent these improvement programs become at risk of unsustainable maintenance. Coastal Bangladesh needs to adopt a new approach toward disaster governance which understands women as leaders instead of helpless recipients. The implementation requires funding both gender-specific infrastructure alongside political empowerment programs along with educational initiatives and sustainable livelihood development and systems which eliminate systemic discrimination.

#### 7.1 Future Research and Policy Priorities

Multiple gaps together with future research paths can be identified through a systematic evaluation of existing literature.

##### 7.1.1 Intersectional and Longitudinal Research

The existing research on gender-disaster studies within Bangladesh evaluates women as one general group without considering the specific needs of adolescent girls together with elderly women, disabled persons, widows and members of the LGBTQ+ community. Research needs to combine intersectional perspectives alongside time-based and identity-oriented tracking of disaster recovery to create actionable policy recommendations.

### 7.1.2 Non-Coastal and Comparative Studies

This publication reviews coastal areas but the same gender systems operate in urban slums and rivers as well as floodplain environments. Studies which use Bangladesh's regions as points of comparison in addition to investigations of comparable delta areas across countries like India will generate valuable insights about effective practices.

### 7.1.3 Integration with Climate Adaptation and Migration

The increase in climate-motivated population movement requires research on how women who relocate handle housing conditions and workplace opportunities and social support networks in their new locations. The integration of gender-informed disaster response capabilities within country adaptation policies and social programs creates stronger resilience frameworks.

### 7.1.4 Institutional Reform and GRB Integration

Governmental initiatives must concentrate on implementing gender-responsive budgeting (GRB) and developing better local gender focal points and real-time gender monitoring tools within emergency preparation and response efforts. Artificial intelligence dashboards along with digital tracking systems enable the monitoring of relief distribution streams together with service access data across genders at individual locations.

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