

Assessing the Impact of Climate Change on Livelihood Transformation and Migration Patterns in the Launchghat Region, Barishal

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Youth Engagement

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Acknowledgements

We express our gratitude to the Manusher Jonno Foundation (MJF) for their generous support through the Youth Engagement in Democracy (YED) project.

Additionally, our heartfelt thanks go to the team at GRM for sharing their expertise and knowledge, which greatly enriched our research efforts.

We extend our special thanks to Tahsin Uddin and Asif Iqbal Zubayer for their unwavering support and guidance throughout the entire research process. Their dedication, expertise, and encouragement were instrumental in shaping the direction of this study and ensuring its successful completion.

Finally, we extend our sincere appreciation to Afroza Suravi, Md Israfil, Shahara Mim, Nusrat Jahan Meghla, Ahsan Rifat, Ratul, Sanjana Sumaiya, Saniat, and Md Hanif for their invaluable assistance in conducting the questionnaire survey. Their dedication, support, and contributions played a pivotal role in the successful execution of this research project.

We also thank all individuals, organizations, and participants who contributed their time, insights, and resources to this study, enabling us to achieve our research objectives effectively.

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Executive Summary

The Launch-ghat area in Barishal, Bangladesh, serves as a focal point for examining the intricate dynamics between climate change, livelihood transformations, and migration patterns. This research delves into the profound implications of climate-induced factors, such as floods, riverbank erosion, cyclones, and storms, on the socio-economic landscape of the region. By investigating the drivers behind livelihood transformations and migration, this study seeks to provide comprehensive insights into the challenges faced by the local population.

The research encompasses specific areas within Launch-ghat, including KDC Colony, Rasulpur Slum, Bangabandhu Colony, Vatarkhar Area, and Char Kawa. Through a combination of quantitative methods, such as questionnaire surveys, and qualitative methods, including key informant interviews and focus group discussions, the study aims to capture nuanced perspectives and localized experiences of climate migrants. By engaging directly with the affected communities, the research endeavors to offer a holistic understanding of their vulnerabilities and resilience strategies.

The findings underscore the multifaceted impact of climate change on the Launch-ghat Region. Climate-induced events, such as floods and riverbank erosion, have significantly disrupted the traditional livelihoods of the local population, forcing many to seek alternative means of economic sustenance. Moreover, the study reveals a complex interplay of push and pull factors driving migration, including environmental degradation, economic opportunities, and social dynamics.

The research highlights the urgent need for policy-level interventions to address the challenges posed by climate change in the Launch-ghat area. Recommendations include the development of community-based adaptation plans tailored to the specific needs of climate migrants, as well as initiatives aimed at improving access to essential services and infrastructure in host communities. Additionally, gender-sensitive approaches are crucial for addressing the unique vulnerabilities of women and girls affected by climate-induced migration.

In conclusion, this research underscores the importance of proactive measures to mitigate the impact of climate change on vulnerable communities. By adopting a holistic approach that integrates scientific evidence with community perspectives, policymakers can develop effective strategies for climate adaptation and resilience-building in the Launch-ghat Region.

Chapter 1: Introduction

01.01 Background of the project

In Barishal, a city in the southern part of Bangladesh, climate change is causing serious problems. The Launch-ghat area, which includes places like KDC colony, Rasulpur slum, Bangabondhu colony, Vatarkhar area, and Char Kawa, has become a haven for people forced to move due to climate-related issues. These problems include things like river erosion, floods, cyclones, and waterlogging.

The main issue is that climate change is pushing people to leave their homes and change the way they make a living. The Launch-ghat residents are facing the worst of these problems, losing their homes and jobs. This has led to a growing number of climate migrants who are left without jobs, homes, and hope.

The ones most affected are the climate migrants who have lost their homes and are struggling to adapt to their new reality. They not only face challenges in getting basic facilities in their new communities but also suffer in terms of health, sanitation, and fair treatment.

To solve this complex problem, urgent action is needed. Policies must be put in place to deal with the effects of climate change and help people adapt to these changes. The affected community needs more than just temporary relief; they need lasting solutions like job opportunities, better living conditions, and improved community services.

The key is to take a comprehensive approach that includes raising awareness about climate change, creating strategies that involve the community, making sure people have a say in decision-making, and providing basic community services. It's crucial to empower the affected communities by offering chances to start businesses, promoting equality between men and women, and ensuring their legal rights are protected.

By understanding the challenges of climate-induced migration and changes in how people make a living, this study aims to suggest practical solutions that can bring about positive changes and help communities become stronger, more inclusive, and better prepared for the challenges of climate change.

01. 02. Objective of the Study

The primary objective of this research is to comprehensively assess the impact of climate change on livelihood transformation and migration patterns in the Launch-ghat Region of Barishal, Bangladesh. Specifically, the study aims to:

1. **Examine the Consequences of Climate Change:** Analyse the key consequences of climate change on the livelihoods and income sources of individuals residing in the Launch-ghat Region. This involves understanding how climate-induced factors such

as floods, riverbank erosion, tropical cyclones, and storms affect the economic wellbeing of the local population.

- 2. Identify Drivers of Livelihood Transformation: Investigate the primary drivers of livelihood transformation in response to climate change within the Barishal's Sadar Ghat area. This includes understanding the economic, social, and environmental factors that compel individuals to alter their means of earning a livelihood.
- **3. Explore Reasons for Migration:** Explore the reasons for migration among the residents of Launch-ghat due to climate change impacts. The study aims to understand the motivations behind migration, the socio-economic impacts of relocation, and the destinations chosen by migrants.

01.03 Scope of the study

This research endeavours to develop a comprehensive understanding of the challenges posed by climate change in the Launch-ghat Region of Barishal, with a particular focus on livelihood transformation and migration patterns. The scope of the study encompasses:

- Climate-Induced Migration: The study delves into the phenomenon of climateinduced migration in the Launch-ghat Region, examining the reasons behind migration, the socio-economic impacts on individuals and communities, and the destinations chosen by migrants. By focusing on specific areas within Launch-ghat, including KDC Colony, Bangabandhu Colony, Rasulpur Slum, Vatarkhar Area, and Char Kawa, the research aims to provide localised insights.
- 2. Livelihood Change Drivers: The research investigates the drivers of livelihood transformation within the study area, aiming to identify the key factors influencing individuals to adapt their means of earning a livelihood in response to climate change. This includes analysing economic, environmental, and social determinants that contribute to changes in occupation and income sources.
- 3. **Community-Based Adaptation Planning:** The study extends its scope to propose viable community-based adaptation strategies for the climate-affected communities in Launch-ghat. By understanding the specific challenges faced by the residents, the research aims to inform the development of targeted policies and interventions at the local level to enhance resilience and sustainability.

4. **Policy Implications:** The findings of this research are intended to contribute to the formulation of policies addressing the impacts of climate change on livelihoods and migration. The scope encompasses recommendations for policymakers and relevant stakeholders to implement effective measures that mitigate the adverse effects of climate change and support sustainable community development.

By delineating these specific areas, the study aims to provide actionable insights and recommendations tailored to the unique challenges faced by the Launch-ghat Region, thereby contributing to the broader discourse on climate change adaptation and resilience-building in vulnerable communities.

Chapter 2: Literature Review

Bangladesh has been identified as one of the most vulnerable countries in the context of climate change (Hug 2001, Hug and Avers 2008). Climate Change is expected to increase the severity and frequency of weather-related natural hazards, such as storm surge, cyclone, high rainfalls, floods, droughts, salinity, soil degradation and erosion, extreme temperature, etc. posing a direct threat to livelihood and all sectors (Rahman, 2012) Though livelihood diversification through migration is very primitive and traditional, it has been increasing due to the influences of climate change consequences, globalization and development. Importantly, in the early 80s poor people used to go to their nearby communities or cities for employment, but recently as transport, infrastructure and information, communication and technology (ICT) sectors have improved, the dimension and scope of seasonal and temporary migration has also enlarged from local to national, and even national to international levels. (Migration Data Portal 2020). Encompassing various climatic phenomena such as floods, riverbank erosion, tropical cyclones, and storms, the analysis of migration rates spanning 2014 to 2018 reveals dynamic patterns. Notably, Barishal division witnessed its peak migration in 2017. The year 2020 data accentuates the persistent challenges, with Patuakhali emerging as the district with the highest migrant population. (Rasel Sheikh, 2017). In the coastal region of Bangladesh, most of the people are dependent on the natural resources base for their livelihood and due to high susceptibility of those natural resources to various climatic shocks and stresses, the overall livelihoods are becoming threatened in the coastal region (IFAD, 2009). So far, the overall impact of various natural disasters on the livelihood sector particularly in the small geographical scale is still under-investigated. In-depth research on natural disasters impacts from the livelihood perspective of interior coastal areas is still needed (Sadik et al., 2018)

Chapter 3: Research Methodology

3.01 Study Area Profile

The Launch-ghat area in Barishal, Bangladesh, presents a dynamic microcosm of the complex interplay between climate change impacts, migration patterns, and livelihood transformations. Comprising diverse neighborhoods such as KDC Colony, Bangabandhu Colony, Rasulpur Slum, Vatarkhar Area, and Char Kawa, this region has witnessed a significant influx of climate migrants seeking refuge from environmental hazards in their native areas.

KDC Colony, characterized by its densely populated settlements, has emerged as a hub for migrant communities, offering shelter and opportunities for economic sustenance. Bangabandhu Colony, named after the nation's founding father, serves as another pivotal locale within Launch-ghat, where migrants have established makeshift homes amidst the bustling urban landscape.

Rasulpur Slum, known for its informal housing and precarious living conditions, accommodates a substantial portion of the migrant population, grappling with the challenges of inadequate infrastructure and limited access to essential services. Meanwhile, Vatarkhar Area, situated along the riverbank, faces recurrent threats from river erosion and flooding, exacerbating the vulnerabilities of its inhabitants.

Char Kawa, a remote island community, represents a unique enclave within Launch-ghat, where migrants have settled in the face of environmental displacement. Despite its isolation, this area bears witness to the resilience and adaptability of climate migrants, who have forged new livelihoods amidst adversity.

These neighborhoods, though diverse in their socio-economic characteristics, share common threads of resilience and perseverance among their inhabitants. As climate change continues to reshape the landscape of Barishal, the Launch-ghat area stands at the forefront of efforts to address the multifaceted challenges confronting climate migrants and host communities alike. Through localized research and community engagement, this study aims to shed light on the intricacies of adaptation and resilience-building in the face of environmental uncertainty..

KAWNIA	CHAR ABDHANI
AMANATGA	LI
	PALASHPUR
SHAHAPARA	
NUTAN BAZAR Snaw Rd NAZIR MOHOLLA	
Bogra Ra CHAWCK BAZAR Bogra Ra CHAWCK BAZAR SADAR ROAD STATE	
ALVERANDA	
CODE STA	

03.02 Primary Data Collection

Primary data were collected through various methods such as- Questionnaire survey, Key Information Interview (KII) and Focus Group Discussion (FGD).

3.2.1. Quantitative Study Sampling Distribution: Conducted 270 Questionnaire surveys to bring quantitative data for our study.

SL. No	Area Name	Male	Female	Total
1	KDC Colony	13	42	55
2	Rasulpur Slum Area	20	40	60
3	Vatarkhal Area	17	33	50
4	Chor-Kauwa	12	45	57
5	Bongobondhu Colony	8	40	48
	Total	70	200	270

3.2.2. Qualitative Study Sampling Distribution: Conducted 02 Key Informant Interviews (KIIs) with two local experts and 02 Focus Group Discussion (FGDs) with two different communities.

Type of Qualitative Study	Responded Information	Expatriates
КШ 1	Divisional Coordinator Bangladesh Poribesh Andolon (BAPA)	Have deep insights about the broader context of climate-induced migration and its drivers & the primary drivers of livelihood transformation in response to climate change in Barisal.

Type of Qualitative Study	Responded Information	Expatriates
FGD 1	A group of climate migrants from KDC colony who represented different categories in their community. Ensured inclusion of different group like- Man, women, local politician, and religious leader.	As they are the direct victims of climate change and all of them were climate migrants, they have a clear understanding about migration in this community and various reasons for migration in this community.
FGD 02	A group of people from Rasulpur, Barishal who changed their livelihood due to climate change. Ensured inclusion of different categories like- Man, women, local politician, and religious leader.	As they changed their livelihood and they have a deeper understanding of the reasons for changing livelihood.

03.03. Finalization of Data Collection Instruments

After receiving a four day long rigorous training from GRM, organized by Manusher Jonno Foundation (MJF) under Youth Engagement in Democracy Project, Lal Sabuj Society (LSS) formed a group with seven members and discussed in our group to select our research topic. After an inclusive discussion, we select our research topic and start developing a questionnaire for our survey, checklist of questions for FGDs and KIIs. These were shared with GRM and MJF for their feedback. After getting their feedback, we finalized the questionnaires for survey and checklist for KIIs and FGDs.

For quantitative data, we conducted 270 questionnaire surveys in 5 different hotspot communities for climate migration in Barishal. And for qualitative data, we conducted 1 KIIs and 02 FGDs.

03.04. Data Collection, Cleaning, and Data Management

Primary data were collected from fields in paper and next we brought the data in Google form and at last we exported them in excel. In excel we cleaned unnecessary data and made linguistic corrections to make it analyzable. To make visual representation, we used different charts and tables in excel.

Secondary data were collected from different scientific articles, reports, maps, journals, research papers, websites etc. After the survey gathered data from completely filled up questionnaires, FGDs, KIIs and secondary information were processed and analyzed using Microsoft Excel computer software to make graphical representation and interpretations.

03.05 Quality Control Mechanism

Our research adopted a stringent quality control mechanism to ensure accuracy and reliability. We employed well-defined data collection protocols, conducted thorough team training, and implemented real-time validation checks during data entry. Ethical considerations are prioritized, and we documented the procedures transparently. Regular team meetings and feedback loops contributed to continuous improvement, enhancing the credibility of our research outcomes.

03.06 Ethical Consideration

In conducting this study, ethical considerations are paramount. We prioritized the well-being and confidentiality of our participants, obtaining informed consent before any data collection. All personal information is handled with utmost care, ensuring anonymity and privacy. We strictly adhere to ethical guidelines, seeking necessary approvals from relevant authorities. Transparency and honesty guide our interactions with participants, fostering trust and respect throughout the research process.

03.07 Limitation and Challenges of this Study

While conducting the research on the impact of climate change on livelihood transformation and migration patterns in the Launch-ghat Region, several limitations and challenges were encountered. Firstly, a significant portion of the surveyed population displayed limited awareness of climate change, complicating the attribution of migration and livelihood changes exclusively to climatic factors. Distinguishing between the influence of climate change and other factors on livelihood changes proved challenging, as respondents often cited multiple reasons for their decisions. Moreover, the lack of in-depth knowledge about climate change among participants hindered a comprehensive understanding of its implications. The subjectivity of qualitative data obtained through focus group discussions and key informant interviews added another layer of complexity, relying heavily on participants' perceptions.

In addition to these limitations, challenges were encountered during the data collection process. The sensitivity of the topic and the mobile nature of the climate-affected population posed difficulties in obtaining accurate and comprehensive information. Despite efforts to conduct a comprehensive survey, there is a possibility that the study may not fully represent the diversity of climate migrants in Launch-ghat, affecting the generalizability of the findings. Understanding the complex nature of livelihood changes and capturing the dynamic

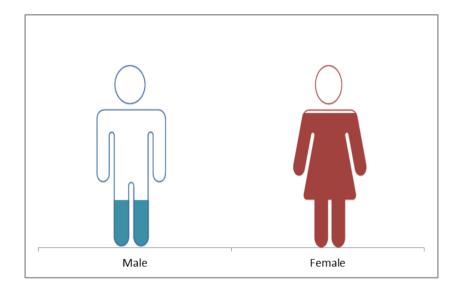
temporal and spatial variations in migration patterns also proved to be intricate. The study relied heavily on self-reported data, introducing potential biases and inaccuracies in responses.

Chapter 4: Analysis and Findings

Qualitative and Quantitative Data Analysis and Findings

04.01. Gender Response

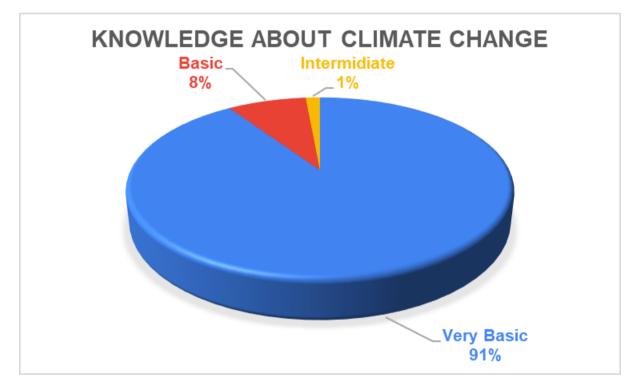
In questionnaire survey, out of our total 270 respondents, 74% respondents were female and 26% respondents were male. As during day-time most of the males have to be outside for their livelihood it was difficult to ensure equal participation.



04.02 Knowledge about Climate Change

Although our surveyed population are direct victims of climate change, 91% of our surveyed population don't know what climate change is and how it's impacting their lives. This number of people face the diverse impact of climate change every day in several ways like river erosion, flood, cyclone, waterlogging and other climate centric issues and are forced to migrate or change their livelihood. Only 8% of people heard of the term "climate change" within their lifetime and 1% of people have some knowledge about climate issues. This shows the knowledge gap of this community on climate change and this makes it hard to make their community adaptation initiative or community resilience.

In KII our expert also mentioned this issue as a burning problem. People from marginalized communities are not that much educated and if some are educated they also don't have climate education and that makes the situation more difficult to resolve. Though he is impressed about the young generation and seeing light in this generation, he believes maybe the situation will improve with this generation.



"Most of the migrant families don't have access to education and literacy rate is so low compared to the rate of average education percentage in Bangladesh. That increases the knowledge gap of the community more. If you asked a person who lost everything, he would blame his fate or Almighty for his loss- from this you could understand their level of knowledge/understanding about climate change in those communities."- He mentioned.

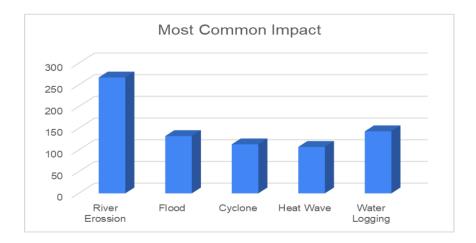
04.03 Most Common Climate Introduced Impact

The area we studied has different climate change introduced issues like river erosion, flood, cyclone, heat wave, water logging etc. This study found almost 267 families directly or indirectly impacted by river erosion while 132, 113, 107 and 147 families are impacted by flood, cyclone, heat wave and water logging. Most of the families are facing one or more than one problems in their previous places which influenced them to migrate. Also some families had witnessed all types of the impact and were bounced to move even if they had a strong will to stay. In our study area most of the people witness river erosion and in erosion they lose everything and it's pushed them to move to the city for seeking alternative livelihood. Same

In our first FGD with the migrant community, among 12 participants 10 were impacted by river erosion and 6 were impacted by flood, cyclone, water logging all the impact of climate change. One of our FGD respondents, age 72 shared his story "In 1996 for the first time I witnessed the first cyclone, during that time we lost our house, cattle, crops and everything. In my village home Bhola, our entire village was like a graveyard. After that in 2007 in another big cyclone I lost my home and everything and moved in Barishal city. I don't know anything named climate but me and my community lost everything in river erosion."

Another respondent, age 46 from KDC colony shared how flood impacted her family "Flood existed in previous times as well but in recent years it's intolerable. How can you stay in that community where 6-10 times water enters your house in a year and damage everything? I have little children and always have been in tension. What happens when I will do work or I will think about all this? That's why I moved to this city with my husband from Lakkhipur last year (2022).

In KII we found the same opinion from an expert. According to his observation, most of the migrants of this area are victims of river erosion. People who are impacted by river erosion also face other problems like flood, cyclone, waterlogging and other issues as they are near the river.



04.04 Health impact on climate migrant community

Our study shows 32% of the population have poor health condition, most of them are facing many diseases like long term skin disease, diarrhea, and cholera and in most of the cases it's related with poor hygienic management. 41% said they have fair health conditions and 20% and 7% said they have good and excellent health conditions.

In our first and second FGD our respondents shared the remarkable health impact in their community. Rasulpur colony community has the most vulnerable health condition and most of the respondents shared problems with hygienic management. As community people use polluted water, diseases like cholera diarrhoea and skin problems are most common in this community. "In the village the environment was healthy, we had the opportunity to have plenty of vegetables, fish and everything. I never visited a doctor/hospital during that time but now doctor and hospital is our second home. My grandchild and his mother are facing many health problems and most of our family income goes for their treatment." - One of our respondents shared.

In KII our expert shares his experience about implementing WASH in several communities in the Launch-ghat area. As most of them are not the voters of the community, political support is not available in that area and proper waste management and water supply by city corporations is unable for them to increase impact health more.

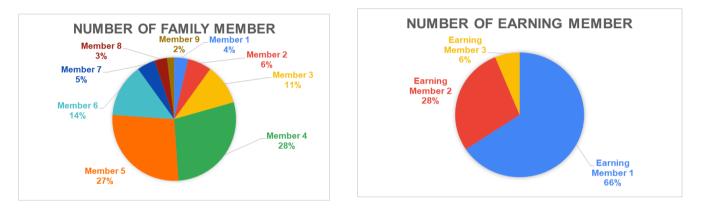
"In the city it's good that if anyone is ill we can visit the hospital so quickly compared to my previous village Dorirchar, but the problem is nowadays facing more health issues than the past. Dengue, diabetics, high pressure all we never heard before but now in our colony home to home everyone facing all this diseases."- One of our respondents explained.

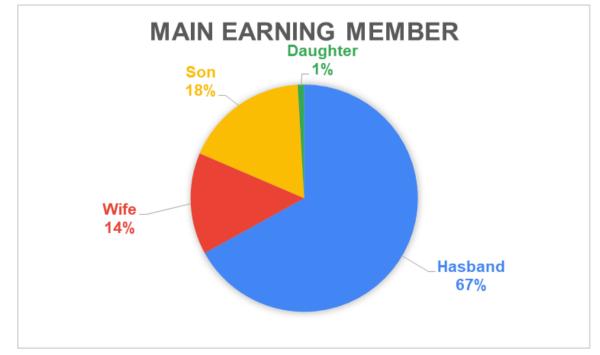


04.05 Migrants Family Size, Earning Member and Gender Ration

In our study we found 79% of the population we surveyed have 04 or more than 04 family members while 66% families have only one person who is earning. This study shows the high dependency on the migrant community. Also birth rates are so high and proper family planning is missing among a large number of the migrant communities we studied. That influences the health risk and economic vulnerability more while those communities are already vulnerable in all social and economic factors.

Also our study shows that in 67% families the main earning member is husband and in 18% families are sons. At the same time only 18% of families are wife and 1% by daughter income. According to the World Bank, the ratio of female to male labor force participation rate in Bangladesh was 46.76% in 2022.(World Bank,2022). So in the migrant community of Barishal what we studied has less women participation in work and more dependency in comparison with the national ratio as well.



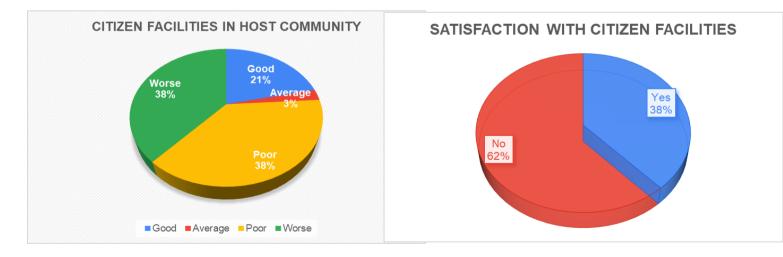


04.06 Citizen Facilities in Host Communities

Citizen facilities like education, health care, sanitation, social security and other basic citizen facilities are not available in host communities where migrated people take shelter. In our study area we found that in Rasulpur (one of the oldest communities for migrant people) the water supply system is poor and most of the people have to use polluted water from rivers and ponds. Though it's under the city corporation, the community people are not getting any facilities from the city corporation. In another study area (KDC colony) the migrant people encounter sanitation related problems. Most of the families use unhygienic latrines and in many areas more than 10-12 families have to use one latrine.

In Banghobondhu colony, electricity issues are the most common. Migrant people have to pay monthly extra money to local leaders for availing electricity facilities. Among all basic citizen facilities, in Launch-ghat area, 38% of migrant families are in a worse situation in terms of basic citizen facilities like accommodation, quality education, social securities, basic healthcare, electricity, good roads and drainage and 38% have poor facilities and 3% have average facilities and only 21% have good facilities. The ration is showing the situation of migrants and the difficulties they are facing in host communities. 62% of the population shared they are not satisfied with the services they are getting in the host community.

In our FGD with migrant community, respondents explained their poor road situation and waterlogging situation. One respondent who moved to Rasulpur colony long ago and one of the oldest members shared- "Development is everywhere in the city but nothing improving for us. I came to this place and we the migrants created this place with our hard work. This place was so down and we improved this place like this. Every time during the election, politicians promise us about changing our fate but none of them have done anything for us. We are not getting facilities from the City Corporation or government that we should get most."



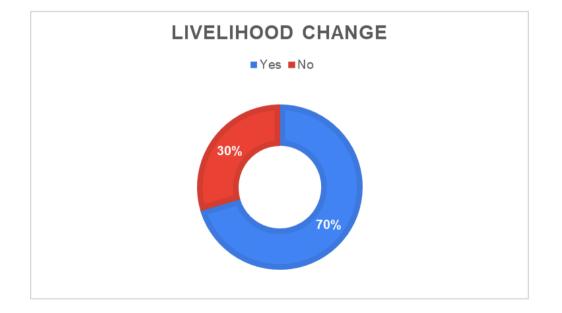
04.07 Change of Livelihood

In Launch-ghat Barishal, among our study population, 70% of people changed their livelihood due to the impacts of climate change. Once leading self-sufficient lives in their villages, they were compelled to migrate due to various climate-induced events such as river erosion, floods, cyclones, heatwaves, and waterlogging. Formerly farmers, fishermen, or agricultural labourers in their communities, they now find themselves without the opportunity to continue their traditional occupations in the city.

From our Focus Group Discussions (FGDs) with respondents who changed their livelihoods, out of 12 participants, 3 were farmers, 4 were fishermen, 2 had small businesses, and 3 were housewives. Currently, 3 work as van drivers, 4 as domestic servants, 3 as day laborers, and 2 in other small jobs. In the city, they face challenges such as lack of land for farming and reduced availability of fish in the Kirtonkhola River compared to other rivers, making it difficult to sustain their indigenous occupations.

One of our FGD respondents, who was formerly a fisherman in the village and now runs a small tea stall, shared his experience: "My father, grandfather, and I were all fishermen by birth. Fishing was all I knew, and I earned a significant income from it. But now, I am forced to run a business. What do I know about business? But I have no choice. Where else can I go fishing?"

In Key Informant Interviews (KIIs), respondents expressed that besides the push factor of climate change, some livelihood changes were also motivated by pull factors. Migrants sought better income opportunities, such as becoming rickshaw pullers, as they could earn more in urban areas than as fishermen in the village. One respondent explained, "In the village, a farmer earns 400-500 taka after working a whole day, while a rickshaw puller or auto driver in the city earns 1200-1500 taka on average daily. The decrease in work opportunities in the village is also linked to climate change and its impacts."



04.08 Impact on Income & Satisfaction with Livelihood Change

In changing livelihoods 40% people improved their income while 50% expressed their income has decreased and 10% think their income is the same as before.

At the same time, 65% of people are not satisfied with their changing occupation/livelihood. Our study found they still feel that the previous occupation was better than the present one and if they get the opportunity to move again in their previous occupation, they are excited to change their current occupation. As in villages they were supposed to do the same work generation by generation, they were habituated with this and when in host communities they have no opportunity to continue this, it makes it difficult for them as they are forced to change livelihood.

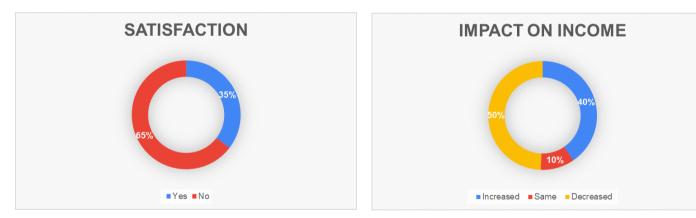
One of our respondents shared, "In the village we had our own land, pond, field and we were self-sufficient. Now we need to purchase everything. Even water is not free in this city. In the village I helped others and now I am looking for help from others."

Another FGD respondent responded "I earn more in my changing occupation but I am not satisfied with this. In the village I did my own work but here I have to work for others. My father did farming, my grandfather did farming and generation after generation the only work I know is farming but I had to change this. The satisfaction I had I am not getting now from the work I am doing now."

04.09 Problems what Community Seeking Immediate Solution

According to our study, in the Launch-ghat area, most of the migrant community faces numerous immediate difficulties requiring urgent solutions. Out of 109 respondents, a significant concern is the dire need for improved roads, highlighting the lack of proper connectivity despite all communities falling under the City Corporation's jurisdiction. Additionally, 78 respondents emphasize the necessity of a functioning drainage system, given the prevalence of drainage issues across most communities. Sanitation is a pressing issue for 61 respondents, while 36 seek access to reliable electricity, 26 require clean water, and 34 advocate for enhanced healthcare facilities. Furthermore, 21 respondents express the need for improved education facilities, 16 cite waterlogging as a major problem, 22 seek resolution to drug-related issues, and 12 highlight the scarcity of employment opportunities.

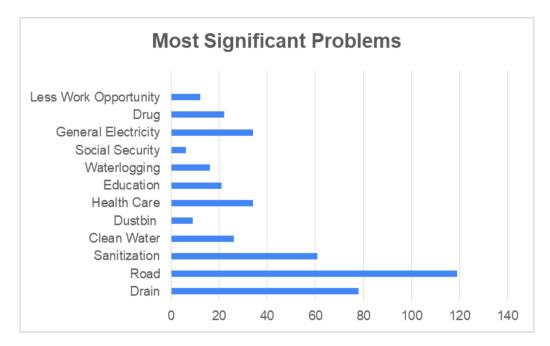
During Focus Group Discussions (FGDs), a local political influencer shared insights, stating, "Progress is evident over time; formerly, communities like Rasulpur and KDC colony were hubs for various illicit activities. While there have been improvements, challenges remain. Although we now have access to electricity, the lack of individual meters results in higher expenses. While our children attend school, financial constraints prevent them from accessing additional support, leaving them at a disadvantage compared to their wealthier peers."



Another respondent highlighted the persistent issue of waterlogging, remarking, "During the

rainy season, accessing this area becomes nearly impossible. Moreover, the communal water tap, serving 20-30 families, operates intermittently, exacerbating our plight."

The urgent need for solutions is underscored in Key Informant Interviews (KIIs), where our expert concurred, stating, "These communities often face neglect in terms of development due to their lack of voting rights."



05.00 Democracy and Human Rights Alignment

While the primary focus of this study revolves around the impacts of climate change on livelihoods and migration patterns, it is essential to briefly discuss the alignment of these issues with democratic principles and human rights considerations.

05.01 Democratic Principles

In democratic societies, individuals have the right to participate in decision-making processes that affect their lives. The study area, Launch-ghat Region, being part of a democratic nation like Bangladesh, raises questions about the extent to which climate-affected communities are involved in shaping policies that address their unique challenges. Participation in decision-making, especially regarding adaptation strategies, should be inclusive and reflective of the diverse needs of the affected population. Strengthening democratic practices at the local level ensures that the voices of climate migrants are heard and considered in the formulation of policies related to their well-being.

05.02 Human Rights Considerations

Human rights, including the right to life, health, and livelihood, play a crucial role in the context of climate-induced migration. The Universal Declaration of Human Rights underscores the right to a standard of living adequate for health and well-being. The study reveals health challenges, limited access to basic services, and changes in livelihoods that directly impact the well-being of climate migrants. Ensuring that the human rights of these individuals are respected, protected, and fulfilled requires comprehensive policies addressing healthcare, sanitation, education, and economic opportunities.

05.03 Recommendations for Democratic and Human Rights Alignment

Inclusive Decision-Making Processes: Policymakers and local authorities should actively involve climate-affected communities in decision-making processes related to climate change adaptation and resilience-building measures.

Legal Protections: Strengthen legal frameworks to protect the rights of climate migrants, ensuring their right to a safe environment, access to healthcare, and the opportunity to maintain their livelihoods.

Community Empowerment: Facilitate community-driven initiatives that empower climate migrants to actively participate in shaping their present and future. This includes supporting entrepreneurship, education, and healthcare programs tailored to their specific needs.

06.00 Recommendations

06.01 Climate Change Awareness and Education:

Enhance climate change awareness and education programs targeting the studied communities. Develop initiatives at the local level to educate residents about climate change, its impacts, and adaptive measures. Engage with local schools, community leaders, and NGOs to promote climate literacy.

06.02 Community-Based Adaptation Strategies:

Formulate and implement community-based adaptation strategies tailored to the unique challenges faced by the Launch-ghat Region. These strategies should address the immediate needs of climate migrants, including healthcare, infrastructure development, and livelihood support. Involve the community in the planning and execution of adaptation projects.

06.03 Strengthening Democratic Practices:

Promote and strengthen democratic practices at the local level. Ensure the active participation of climate-affected communities in decision-making processes related to climate change adaptation and resilience-building. Foster transparent and inclusive governance mechanisms that prioritize the voices of the vulnerable population.

06.04 Access to Basic Citizen Facilities:

Improve access to basic citizen facilities, including education, healthcare, sanitation, and social services, in host communities. Collaborate with local authorities to address deficiencies in infrastructure and public services, ensuring that the needs of migrants are met and their rights are protected.

06.05 Livelihood Opportunities and Entrepreneurship:

Facilitate livelihood opportunities and entrepreneurship initiatives for climate migrants. Provide training programs, financial support, and resources to enable individuals to start their businesses. Emphasize skills development that aligns with both local economic opportunities and the expertise of migrants.

06.06 Healthcare Services and Hygiene Management:

Enhance healthcare services in host communities, addressing prevalent health issues resulting from poor hygienic management. Collaborate with healthcare providers, NGOs, and local authorities to ensure access to quality healthcare for climate migrants. Implement health education programs to improve overall well-being.

06.07 Gender Equity and Women Empowerment:

Promote gender equity and women's empowerment in the context of climate-induced migration. Develop programs that encourage women's participation in the workforce, entrepreneurship, and decision-making processes. Address gender-specific challenges and ensure that women have equal access to resources and opportunities.

06.08 Legal Protections and Human Rights:

Strengthen legal protections for climate migrants, recognizing and safeguarding their human rights. Work towards the development and enforcement of policies that protect the right to a safe environment, healthcare, education, and livelihood. Collaborate with legal institutions, human rights organizations, and local authorities to ensure the well-being of climate-affected populations.

06.09 Continuous Research and Monitoring:

Encourage continuous research and monitoring of climate change impacts on the Launchghat Region. Establish mechanisms for ongoing data collection, analysis, and assessment to adapt policies and interventions to evolving challenges. Foster collaboration between research institutions, NGOs, and government agencies for informed decision-making.

In implementing these recommendations, a holistic and collaborative approach involving government agencies, non-governmental organizations, local authorities, and the affected communities is crucial. By addressing the multifaceted challenges faced by climate migrants in the Launch-ghat Region, we can work towards building resilient, sustainable, and inclusive communities in the face of climate change.

Chapter 07: Conclusion

The Launch-ghat Region in Barishal, Bangladesh, stands as a microcosm of the profound challenges posed by climate change, where the intersection of livelihood transformation and migration patterns underscores the urgency for comprehensive and targeted interventions. This research has delved into the complex web of climate-induced impacts, exploring the consequences on communities that have been forced to adapt to new realities. As the study reveals, the ramifications of climate change extend far beyond environmental concerns, touching the very fabric of livelihoods, human rights, and community well-being.

The findings underscore the critical need for immediate action on multiple fronts. Climate migrants in the Launch-ghat Region face a myriad of challenges, from limited climate change awareness and inadequate access to basic citizen facilities to health concerns and livelihood transformations. The lack of democratic participation and gender disparities further compound the vulnerabilities of this population, necessitating a multifaceted and rights-based approach.

As we move forward, it is imperative to recognize the interconnected nature of these challenges and to develop strategies that address the root causes. Community-based adaptation initiatives, informed by a deep understanding of local needs, should form the cornerstone of interventions. Empowering communities to actively participate in decision-making processes, coupled with educational initiatives, will build resilience and foster a sense of ownership over adaptive measures.

Moreover, the study calls for a reevaluation of host community infrastructure and services. Basic citizen facilities such as education, healthcare, sanitation, and social security must be improved to accommodate the needs of climate migrants. Entrepreneurship opportunities should be cultivated to provide sustainable livelihoods, aligning with the skills and aspirations of the population.

In conclusion, the Launch-ghat Region serves as both a microcosm of the challenges faced by climate migrants and a potential model for effective, community-driven adaptation. By implementing the recommendations outlined in this research paper, we can move towards creating resilient, inclusive, and rights-based solutions that not only mitigate the impact of climate change but also empower communities to thrive in the face of evolving challenges. The time for concerted, collaborative action is now, as we strive to create a future where no community is left behind in the wake of climate-induced transformations.

The recommendations put forth in this research are not only pertinent to the Launch-ghat Region but also hold significant relevance for climate-affected migrant communities across the country. As climate change continues to pose unprecedented challenges to livelihoods and human well-being, adopting a holistic and rights-based approach to adaptation and resilience-building is imperative. By prioritizing community empowerment, inclusive decision-making, and equitable access to essential services, these recommendations offer a blueprint for addressing the needs of climate migrants nationwide. Emphasizing the importance of tailored interventions that consider the unique vulnerabilities and strengths of each community, these recommendations aim to foster sustainable development and ensure that no individual or group is left behind in the face of environmental adversity.

Chapter 08: Reference

- Ayers, J., Huq, S., Wright, H., Faisal, A. M., & Hussain, S. T. (2014, October 2). Mainstreaming climate change adaptation into development in Bangladesh. *Climate and Development*, 6(4), 293–305. <u>https://doi.org/10.1080/17565529.2014.977761</u>
- RAHMAN, M. M. (2012) Enhancement of Resilience of Coastal Community in Bangladesh through Crop Diversification in Adaptation to Climate Change Impacts. BRAC University: Bangladesh. p. 15-50.
- 3. Migration Data Portal. (2020). Retrieved April 29, 2020 from https://migrationdataportal.org/?i=inflow_work&t=2017&m=2
- Rasel Sheikh, M. (2017). An Assessment of Climate Change Impacts on Livelihood Patterns: A Case Study at Bakergonj Upazila, Barisal. *Journal of Health and Environmental Research*, *3*(3), 42. <u>https://doi.org/10.11648/j.jher.20170303.11</u>
- IFAD. (2009). IFAD's response to climate change through support to adaptation and related actions: Comprehensive Report: Final Version. http://www.ifad.org/climate/resources/adaptation.pdf. [Accessed: 6th March 2017].

 Sadik, M. S., Nakagawa, H., Rahman, R., Shaw, R., Kawaike, K., & Fujita, K. (2018, March). A Study on Cyclone Aila Recovery in Koyra, Bangladesh: Evaluating the Inclusiveness of Recovery with Respect to Predisaster Vulnerability Reduction. *International Journal of Disaster Risk Science*, 9(1), 28–43. <u>https://doi.org/10.1007/s13753-018-0166-9</u>

Chapter 09: ANNEXURE (Tools of the Study):

Research Questions

1. What are the key consequences of climate change on the livelihoods and income sources of people in the Launch-ghat Region?

2. What are the primary drivers of livelihood transformation in response to climate change in Barisal Launch-ghat area?

3. What are the reasons for migration among the residents of Launch-ghat due to climate change impacts?

Screening Question:

- 1. Have you/your family ever faced challenges due to climate change? Yes/No
- 2. Have you/your Family had to migrate due to climate change? Yes/No
- 3. Have you/ your family ever had to change Livelihood ever due to climate Change? Yes/No

Demographic Question

Name: Mobile No: Age: Gender: (Male/Female/Others) Occupation: Income Level: Expenditure: Primary earning Member: How many earning Members are in your family? If you migrant, from where did you? If anyone from your family left this place, where are they now? Land Ownership: Leaving years in this location: Health Status: (Excellent, Good, Fair, and Poor)

Climate Change Related Question:

1. Your knowledge about climate change? (Very Basic, Basic, Intermediate, High, very high)

2. What type of consequences of climate change you are facing most is this are. (River Erosion,

Flood, Cyclone, heat wave, water logging, others)

-How river erosion impact

- How Flood impact

- How cyclone impact

-how does water logging impact

-others

Livelihood change-related question:

1. What is your current occupation?

2. What was your last occupation? /* what was your indigenous practice (Farmer, fisherman) for

Livelihood if yes then is that available here?

- 3. Why did you change your livelihood?
- 4. Impact on Income: (Decreased, Same, Increased)
- 5. Are you satisfied with your changed occupation? (Yes/No)
- 6. Previous expenditure.
- 7. Current expenditure.
- 8. Do you want to be an entrepreneur? (Yes/No)
- 9. Is there anyone in your family connected with fishing? (Yes/No)

If yes

10. What is the current situation of fish production?

11. (Education, Healthcare, Sanitation, Protection, and Social Security) *Have to elaborate/ Compare Past

And present

- 12. Community Relation with Migrants/
- 13. Have you ever faced any GVV?

Migration related question:

1 From where do you come?

2 Is there anyone in your family who is a migrant?

If yes, where?

- 3 Do you want to leave from here? If yes
- 4 Why do you want to leave? Multiple

5. If you are an Adolescent; what kinds of problems you are facing (Harassment, inequality, social Prejudice)