

Riverbank Erosion and Migration: A Study on Displaced People from Governance and Cultural Perspective

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Abstract

In the contemporary world, the world population is more fragmented than ever, and they are more or less and directly or indirectly being affected by the consequences of environmental hazards where riverbank erosion is appeared as a crucial one. In Bangladesh, the issue of riverbank erosion is very alarming as in every year so many people are being displaced because of it. Although the government along with environmentalists and development workers are working in this arena, riverbank erosion is intensifying the sufferings of the victims because of country's overpopulation and failure of governance in this arena. In this backdrop, the paper attempts to establish a linkage among human migration, riverbank erosion and cultural issues through identifying the causes and effect behind the ever-growing migration of riverine people. It also makes a humble attempt to disclose the ultimate sufferings that are associated with this sort of human migration while considering the governing mechanism for regulating such kind of displacement. The study is both qualitative and quantitative, and used primary and secondary sources for gathering data and facts. The primary source includes some interviews with riverbank erosion affected people of southeast region of Bangladesh who are currently living at landless fisheries colony, CEPZ (Chittagong Export Processing Zone), Chittagong. The secondary source includes journals, books, conference papers, reports etc. The study reveals that there is a significant co-relationship among riverbank erosion, migration and socio cultural factors of riverine people. The migrants are the victims of forced migration as they were not willing to do so but the riverbank erosion destroyed everything including their land, livelihood, and socio cultural

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infrastructure which eventually compelled them to be migrated. The study shows that, comparatively their life at receiving area is worse than that of sending area as they face here enormous problems including their survival. Lack of proper governing system is also responsible for contributing to such kind of suffering.

Keywords: Migration, Riverbank Erosion, Culture, Displaced People, Governance.

Introduction

Bangladesh is a disaster prone country (Hossain *et al.*, 2004) and Riverbank erosion is appeared to be a silent disaster (IFRC, 2016). Being a riverine country more than 700 rivers formed a complex network of river system in Bangladesh (Islam and Rashid, 2011). Now-a-day Riverbank erosion is a perennial problem and every year thousands of people are being forced to migrate from their place of origin due to riverbank erosion (Tuhin *et. al.*, 2014). It is considered that riverbank erosion is a more serious problem than flood in Bangladesh as people are losing their households and agricultural land permanently every year and it creates untold suffering to the victims. In addition to this, they are losing their identity and cultural heritage, and facing another cultural challenge at their new places. It creates a long-term socio economic and cultural impact on the affected people and those impacts are getting preference, as the numbers of displaced peoples are increasing day-by-day (Rana and Nessa, 2017). Undoubtedly, the government has a vital role in controlling the erosion and protecting the vulnerable and affected people before and after hazard. From this point of view, the paper is aimed at exploring the relationship and linkages among riverbank erosion and migration from governance and cultural perspectives.

Riverbank Erosion and its Aftermath

River bank erosion is a natural disasters causes displacement of riverine people. (Tuhin *et al.*, 2014). Low-income countries are the most severely affected by climatic stress (Khan and Nahar, 2014 & van der Geest and Warner, 2015) where riverbank erosion is a typical environmental stress in delta areas (Ahmed *et al.* 2012; Lewis 2011). During 1970- 2000, two major rivers of Bangladesh, Padma and Jamuna eroded 180 000 hectares of land and about 200 000 people were displaced (Islam and Rashid, 2011). It is difficult to predict the massive erosion of riverbank although there are decades of research (Couper, 2004; Rinaldi and Darby, 2008). Bangladesh is projected to lose around 2,270 hectares of land in 2018 due to riverbank erosion (Siddique, 2018). Unlike the flooding, the loss of land due to riverbank erosion is permanent having long-term impact on the economy (Tuhin *et al.*, 2014). A large number of people become homeless in Bangladesh due to the erosion (Das, 2011).

Displaced people experienced substantial socio economic problems and marginalization because of forced migration and inequitable access to land and other resources (Mutton and Haque, 2004). Such kind of displacement always creates humanitarian crisis and many complex manifestations (Zetter, 2012). The affected people lost not only their land and livelihood but also their identity (Das, 2010). The victims have been suffering from the institutional response in formulating and undertaking adjustment strategies regarding bank erosion (Rogge, 1991). In Bangladesh, unlike other disasters the victims of riverbank erosion are not receiving the proper response from the concerned authorities. The system is lacking from specific policy or program for the riverbank erosion displaced both in government and non-government sectors (Islam and Rashid, 2011).

Research Question

Every year many people, living nearby the rivers of the country, are being displaced. There may be ample reasons behind their displacement such as less earning opportunities, lack of proper educational and health facilities, and lack of other greater civic facilities because of its geographical setting. However, in recent time, riverbank erosion became an important factor behind such kind of displacement where governance could play a vital role in protecting lands, reducing losses and rehabilitating the victims. In this backdrop, the research questions of the present study are ‘are the riverbank erosion and governing institutions responsible for migration of riverine people? And are the current living conditions of those migrated people including cultural adaptation more challenging than that of their origin places?’

Objective and Methodology

In line with the research question, the study focused on the two research objectives. Firstly, to identify the causal relationship between riverbank erosion, migration and governance and secondly, to explore the current living conditions of the migrants including cultural adaptation comparing to their previous cultures. The study is both qualitative and quantitative in nature. Fifteen In depth Interview (IDI) have been conducted with the respondents who are the worst victim of riverbank erosion. The respondents came from the southeastern part of Bangladesh and currently living in Chattogram district. A pre designed semi-structured questionnaire has been used in this study employing a purposive random sampling technique.

Findings of the Study

Current Place of the Respondents

All respondents are currently living at landless fisheries colony which is located nearby Akmol Ali Road, Khalpar, EPZ (Export Processing Zone),

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Chittagong – just on the west of the Chittagong coastal road. The location is geographically very much vulnerable to coastal breakdown.

Origin Places of the Respondents

The respondents came from different districts of the southeastern Bangladesh namely Noakhali and Lakshmpur district of Chittagong division, Barisal district of Barisal division, and Bagerhat district of Khulna division.

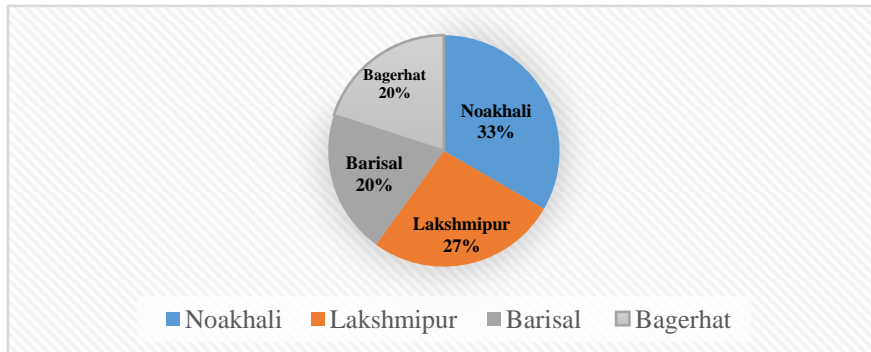


Figure 1: Origin Places of the Respondents

Figure 1 illustrates that more than thirty percent respondents came from Noakhali district (33%) and more than one quarter of the respondents came from Lakshmpur district (27%). On the other hand, less than one quarter of the respondents came from both Barisal (20%) and Bagerhat district (20%). The Meghna riverbank erosion affected the respondents of both Noakhali and Lakshmpur districts where the respondents of Barisal and Bagerhat district were affected by the Tetulia riverbank erosion and Poshur riverbank erosion respectively.

Occupations of the Respondents at the Current Location

Currently the respondents are involved in different types of professions to survive their day-to-day life. Almost all respondents are engaged in low-income professions and they have to manage their big families with these poor incomes.

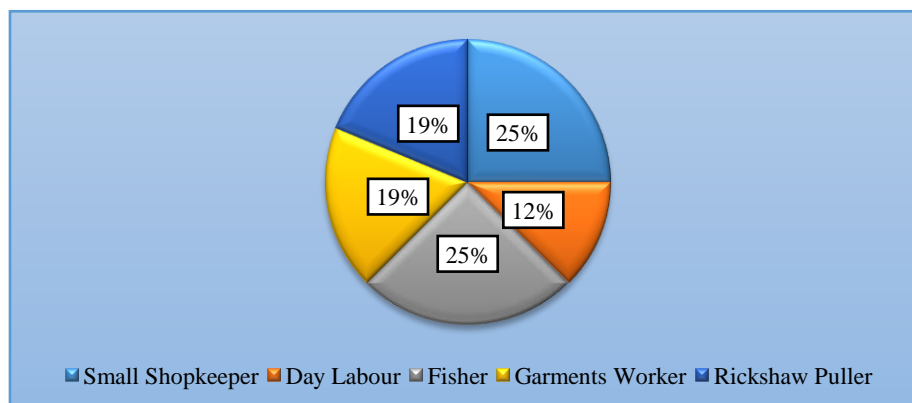


Figure 2: Occupation of the Respondents

Figure 2 shows that a quarter of the respondents are engaged in fishing (25%) and small shop keeping (25%) and less than twenty percent

respondents are involved in garments work (19%) and rickshaw pulling (19%). Rest of the respondents (12%) is day laborers.

The Reasons behind the Migration

Migration could be happened due to one or more interplay of the different reasons like war situation, economic depression, ethnic persuasion etc. However, migration of riverine people because of riverbank erosion became very crucial predominant factor in recent time as so many people are being displaced because of it.

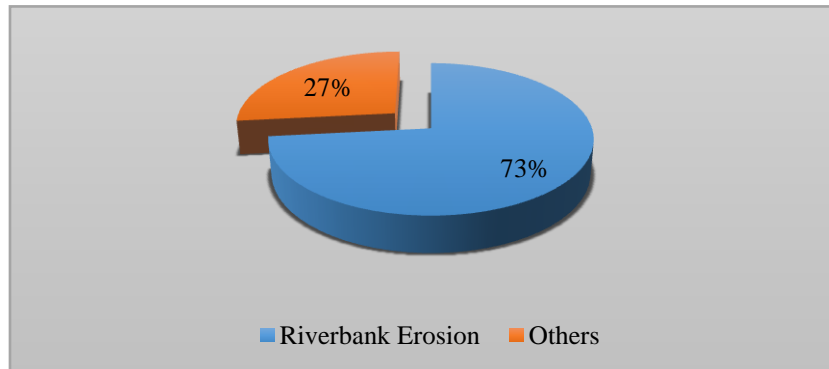


Figure-3: Reasons behind the Migration

Figure 3 shows that nearly three quarter of the respondents migrated from their origin places only because of riverbank erosion (73%). Rest of the respondents (27%) migrated because of other socio economic factors while having an intense relationship with riverbank erosion. One of the respondents opined that, *'we were living at our own villages with entire livelihood but riverbank erosion has destroyed our land and livelihoods. We never thought about migration but the hazards compelled us to do so'*.

The Causes behind Riverbank Erosion

Riverbank erosion is not a sudden environmental hazard like earthquake rather it is continuous process that could be forecasted. In line with this, figure 4 describes that more nearly fifty percent respondent acknowledged the governance failure and lack of proper government initiatives (47%) as the major reason behind the riverbank erosion.

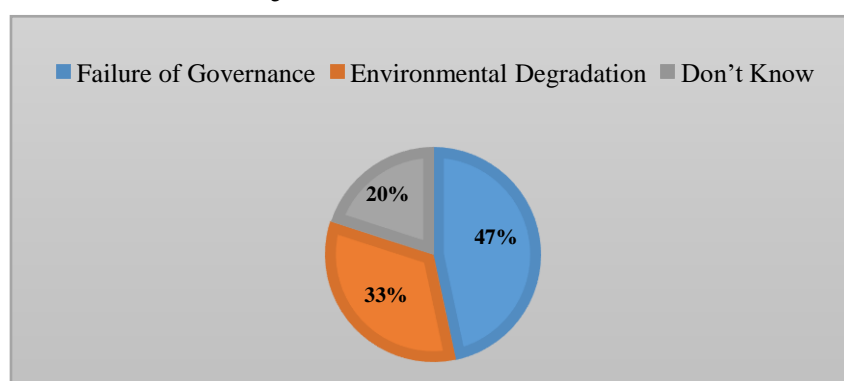


Figure 4: The causes behind riverbank erosion

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More than a quarter of respondents blamed the environmental degradation (33%) and 20% respondents have no knowledge about the matter.

The Ultimate Losses Associated with Riverbank Erosion

It is difficult to figure out how much losses have been taken place due to riverbank erosion as it brought unexpected havoc to the victims in terms of socio-economic and psychological perspective. Their wellbeing has been turned into a massive disaster rapidly which is beyond calculation. Here an attempt has been made to estimate their material losses.

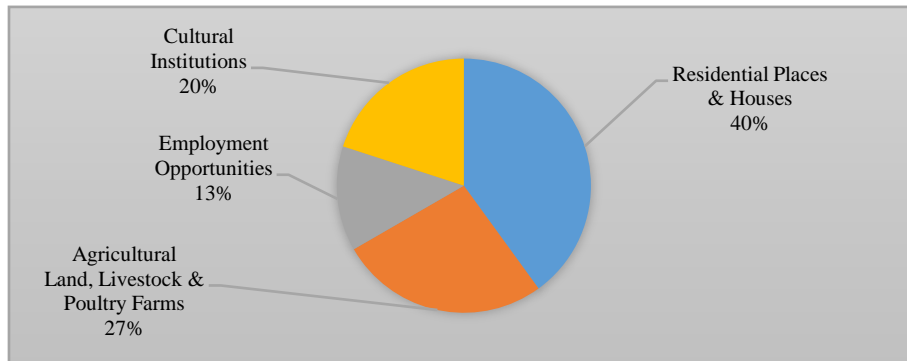


Figure 5: The Losses of the Respondents

Figure 5 delineates that nearly fifty percent of the respondents lost their residential places and houses (40%). More than a quarter of respondents lost their agricultural land, livestock and poultry farms (27%) and 13% respondent lost their employment opportunities. A considerable portion (20%) acknowledged that they lost their cultural institutions due to riverbank erosion. A respondent from Durgapasha Union, Bakerganj Upazila of Barisal district stated that *‘Individually, we have lost everything and collectively, we lost many important social infrastructure like schools, healthcare center, praying places, playing ground etc. even our previous village has been dissolved entirely due to the riverbank erosion’*

Life at Origin Places before Migration

Respondents were living at their own villages before migration and they were accustomed to living as their own.

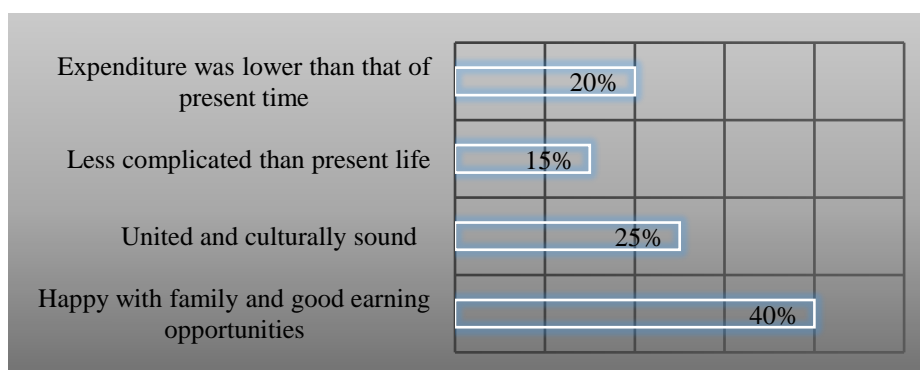


Figure 6: Life at origin places before migration

Figure 6 illustrates that nearly fifty percent respondents were happy with their families and earning opportunities (40%) at their origin places. A quarter of the respondents was united and culturally sounds (25%). Less than a quarter had low expenditures (20%). Rest of the respondents (15%) had a less complicated life comparing to the present one. A respondent from Hatiya upazila of Noakhali district opined that *‘overall I was happy at my origin place with what I had. Although I had some limitations, in terms of income opportunities and other facilities but I could manage my need along with my family smoothly. As expenditures were low, I was happy with my family and business.’*

Life at the Current Location

The respondents are the worst victims of riverbank erosion and eventually they migrated reluctantly. At the current locations, they are engaged in different types of low-income professions (figure 2). Currently their socio economic statuses are not satisfactory at all because of different causes

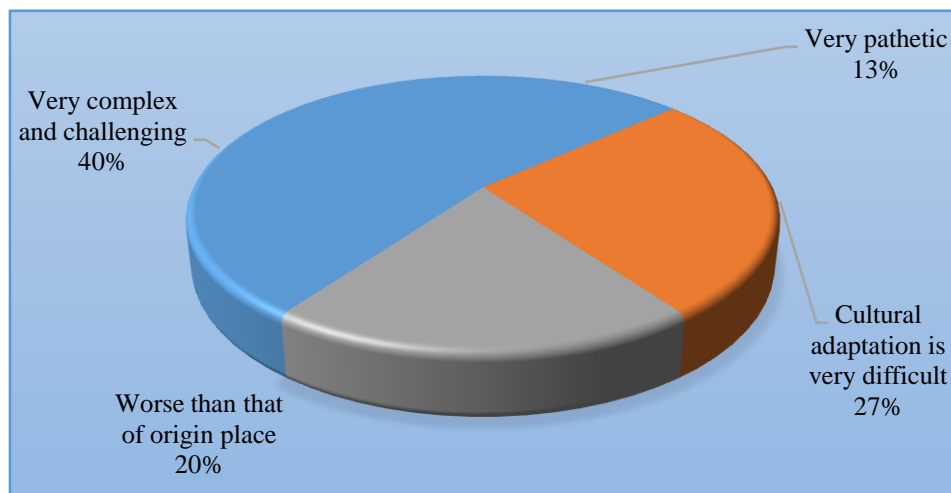


Figure 7: Life at the Current Locations

According to figure 7, nearly fifty percent respondents think that their lives are very complex and challenging (40%) at the current locations while more than a quarter respondents found it culturally difficult to be adapted (27%). Comparing to the origin places, 20% respondents found the current situation worse than that of origin places. Rest of the respondents said that life is very pathetic at the current places (13%). One respondent from Morrelganj Upazila of Bagerhat district mentioned that

‘The present situation is very pathetic. I always have to borrow money from others because my family with nine members is dependent on me. The situation is getting very difficult day by day to maintain my family with this limited and uncertain income from rickshaw pulling.’

Environmental Risk at the Current Location

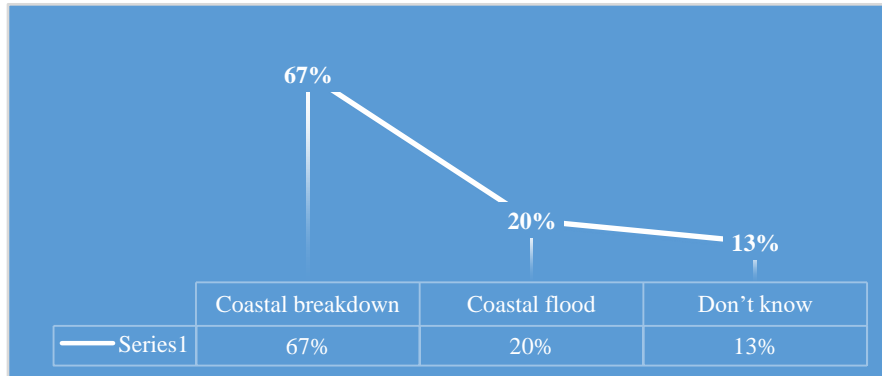


Figure 8: Environmental Risk at the Current Location

At current place, the respondents are very much vulnerable to different types of coastal disaster including coastal breakdown. At their origin places, they faced so many troubles and eventually migrated with a view to finding a safer and secured destination. However, the fate was not in their favor. Figure 8 illustrates that nearly three quarters of the respondents faced coastal breakdown (67%) and nearly a quarter of the respondents faced coastal flood (20%) at current location. More than ten percent respondents do not know (13%) about the issue. One respondent stated that *‘after coming here we experienced the worst consequences of coastal breakdown. Here I had a shop and a small poultry. I took BDT 50000 from a cooperative organization as loan but I lost everything (approximately .3 million BDT).’* Another respondent opined that *‘Current place is very much vulnerable and risky. It seems quite impossible to stay here in near future. Every time we are at the risk of sea level water rise. Previously we hardly face the coastal flooding but recently it becomes one of our daily occurrences’.*

Reasons behind the Coastal Breakdown at Current Location

At current location, coastal breakdown is creating huge problems to the respondents making them vulnerable and helpless. The study revealed that sand extraction from the sea is the prime reason behind the coastal breakdown.

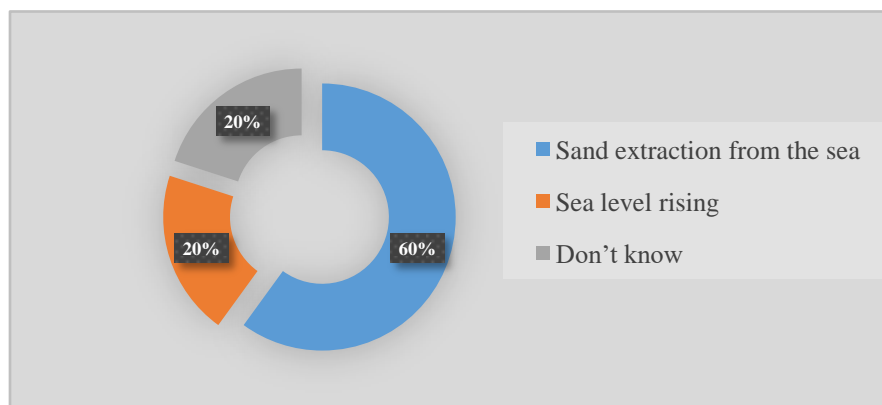


Figure 9: Reasons behind the coastal breakdown

Figure 9 explained that more than fifty percent respondents found the sand extraction (60%) as the main reason behind the coastal breakdown and nearly one quarter of the respondents found sea level rise (20%) as responsible for that. Rest of the respondents (20%) does not know which factors are responsible behind such kind of cruel coastal breakdown. One respondent opined that *'Sand extraction from sea is mainly responsible for this adverse situation. 5 years ago, the situation was less vulnerable but from last two couple of years the situation has been very worst. The situation and its consequences will be beyond imagination if the proper measures aren't taken immediately.'*

Solution to Coastal Breakdown

Coastal breakdown can be reduced through proper and timely initiatives.



Figure 10: Solution to Coastal Breakdown

According to the figure 10, more than fifty percent respondents think that coastal breakdown can be reduced by prohibiting sand extraction (53%) and more than a quarter of respondents said that it can be reduced through making dam for vulnerable sides (27%). A considerable portion of the respondents does not know (20%) how to reduce the coastal breakdown.

Discussion

Riverbank erosion and its aftermath is very pathetic and devastating as it brings endless havoc to the affected people. The scenario that has been drawn from the present study is very alarming and tragic. The respondents faced massive socio economic problems at their own villages that have been created due to riverbank erosion and eventually these problems forced them to be migrated.

Being so much helpless at origin places, they took decisions for migration with a view to getting a safer and secured life along with necessary civic facilities. Unfortunately, their dream could not be converted into realities as they faced so many environmental problems at current locations. The coastal breakdown made their survival very much vulnerable once again. One respondent opined that *'We are always being*

suffered and victimized by the environmental disasters. At our origin place we affected by the riverbank erosion and, once again, at current location we have been suffered by the coastal breakdown'

Therefore, it can be said that they are the double victims of the environmental disaster, initially by the riverbank erosion and later by the coastal breakdown. It is also revealed from the study that their migration was forced migration motivated by the push factors like destruction of socio economic and cultural infrastructures by the riverbank erosion. They were not willing to migrate but the worst consequences of riverbank erosion compelled them to do so.

The failure of governance in protecting riverbank erosion prone area along with protecting the affected people is depicted from the study. The occupational shift from the previous independent business and farming to the present low income earning professions led to the less productive outcome. It is happened because of the absence of proper governance mechanism to resettle the victimized people.

Riverbank erosion is not a sudden environmental hazard like earthquake rather it is continuous process that could be forecasted. There should be three steps government initiatives for controlling erosion and reducing the losses. Firstly, planning and forecasting with logical calculation and taking initiatives for controlling river erosion, and protecting the riverine people. Secondly, reducing the losses during the erosion and finally, resettling and rehabilitating the affected people. The governance has failed to implement the above initiatives as the central and local government institutions and administration could not response to the situation effectively.

At the current location, the respondents are very much vulnerable to the coastal breakdown and this is being happed because of many reasons where sand extraction is crucial one. From the study, it seems that there is no governance to protect the coastal area and prevent the sand extraction. Many respondents opined that government should take proper measures for protecting coastal area by prohibiting sand extraction and making dam in vulnerable areas. Here governance can play a vital role with a view to making a solution to the ever-increasing problems.

It is also a very pathetic issue that the long established culture has been engulfed along with their other materials property. After coming to the new places, they have been confronted to a new culture and being challenged by the cultural shock. In one hand, riverbank bank erosion destroyed the specific culture of the specific region. The people of particular region were practicing particular language, food culture, customs, festivals etc that has been washed away through the displacement of practitioners. On the other hand, at the new places, a new mixed culture has been developed through mutual cultural exchange.

The respondents lost many tangible property including households and agricultural land but they also lost the most important intangible property – culture. They were united socially and culturally, and practicing inherited and locally established culture. All these cultural practice along with cultural institutions have been destructed due to the riverbank erosion. Cultural adaptation at the current locations is another crucial ramification of such kind of displacement. Having lost their own culture, they faced a new cultural environment to which they are not accustomed.

Conclusion

Riverbank erosion is slow and continuous process but its impact is long-term and permanent. The intensity of the ramification resulted from riverbank erosion is yet to get the proper attention of the concern authority to recognize it as a massive disaster only for not having enough death toll unlike earthquake and cyclone. However, it converted the total wellbeing of life into an endless suffering and most of the time they hardly recover it. Their cultural property was engulfed into the river along with their psychical infrastructures that could not be recovered as they migrated to a new location where cross-cultural activities are taking places. In addition to this, they faced cultural shock at current place because of new language, customs, food habits etc. Finally, this riverbank erosion, migration, culture and other issues have subsequent linkages. One step is related to and responsible for the next step as erosion is responsible for migration and migration is responsible for cultural destruction and cross cultural integration. Undoubtedly, governance is existing in every steps and it should play its crucial role in every steps. The bank erosion could not be fully eliminated as it is a natural hazard but it could be controlled and losses would be reduced if proper governance mechanism were functioning.

References

- Ahmed, A.U., Hasan S. R., Etzold, B., Neelrom, S. (2012). Rainfall, food security, and human mobility: case study Bangladesh. UNUEHS Report 2. *UNU-EHS*, Bonn.
- Couper, P. R., (2004). Space and Time in River Bank Erosion Research: A Review, *Area*, 36(4): 387–403
- Das and Bela (2011). Stakeholders' perception in identification of riverbank erosion hazard: *acase study. Natural Hazards*.
- Das, S. K. (2010). People without Shadows: Ethnographic Reflections on Identity and Justice in Contemporary India, *Peace Prints: South Asian Journal of Peacebuilding*.

Riverbank Erosion and Migration

- Das, T. K., Haldar, S. K., Gupta, I. D. and Sen, S. (2014). River Bank Erosion Induced Human Displacement and Its Consequences, *Living Reviews in Landscape Research*, M'unchenberg, Germany. ISSN 1863-7329
- Hossain, M.M. and Ferdousi, S. (2004). Assessment for role of GIS Based Natural Disaster Database in Environmental Management and Planning Activity in Bangladesh. *Environ. Informatics Archives*. 2: 119-125
- Islam, M. F. and Rashid, A.N.M. B. (2011). Riverbank Erosion Displaces in Bangladesh: Need for Institutional Response and Policy Intervention, *Bangladesh Journal of Bioethics*.
- Khan M. M. H., Nahar N. (2014). Natural disasters: socio-economic impacts in Bangladesh. *Banglavisision* 13(1):58–67
- Lewis, D. (2011). Bangladesh: politics, economy and civil society. *Cambridge University Press*, Cambridge. pp 167–195
- Mutton, D. and Haque, C. E. (2004). Human Vulnerability, Dislocation and Resettlement: Adaptation Processes of River-bank Erosion-induced Displaces in Bangladesh, *Disasters*, 28(1): 41–62
- Rana M. S., Nessa A. M. (2017). Impact of Riverbank Erosion on Population Migration and Resettlement of Bangladesh. *Science Journal of Applied Mathematics and Statistics*. Vol. 5.
- Rinaldi, M., Darby, S. E., (2008). Modelling River-Bank Erosion Processes and Mass Failure Mechanisms: Progress towards Fully Coupled Simulations, In *Gravel-bed Rivers VI: From Process Understanding to River Restoration*, Habersack, H., Piegay, H., Rinaldi, M. (eds), Elsevier, Amsterdam.
- Rogge, J. R. (1991). Individual and institutional response to riverbank erosion hazards. In: KM Elahi KS. KS Ahmed and M Mafizuddin (eds.), *Riverbank Erosion, Flood and Population Displacement in Bangladesh*. Dhaka: REIS, Jahangirnagar University.
- Siddique, A. (2018). Bangladesh may lose 2,270 hectares of land to erosion. *Dhaka Tribune*. Retrieved from <https://www.dhakatribune.com/bangladesh/environment/2018/07/09/bangladesh-may-lose-2-270-hectares-of-land-to-erosion> on 22 September 2018.
- The International Federation of Red Cross and Red Crescent Societies (2016). River erosion – a silent disaster in Bangladesh. Retrieved from <http://www.ifrc.org/en/news-and-media/news-stories/asia-pacific/bangladesh/river-erosion--a-silent-disaster-in-bangladesh--72488/> on 20 September 2018.
- Warner, K. (2015). What the IPCC 5th assessment report has to say about loss and damage. UNU-EHS Working Paper 21. *UNU-EHS*, Bonn.
- Zetter, R. (2012). Forced migration – changing trends, new responses, *Migration Policy Practice*.