

Source: ALRD

Communities face off with a river that swallows lands and homes

A Case Study of River Erosion in Yusuf Matubbarer Dangi Village in North Channel Union of Faridpur District

By Shanjida Khan Ripa Association for Land Reform and Development (ALRD)

Key Messages

- The social and economic impact of climate induced disasters on vulnerable families has been devastating. They have been forced to abandon their ancestral profession and migrate to cities in search of programs of the government, largely because they have no permanent address. Nevertheless, it is the responsibility of the government to fulfill the basic rights of people displaced due to river erosion.
- During the consultation, the residents of Yusuf Matubbarer Dangi Village decried the "massive complications" resulting from displacement from their homes, particularly concerning their livelihoods. They are applying adaptation strategies to boost their livelihood resilience against climate change. However, fragile housing, financial constraints, and lack of their own land are the greatest impediments to the sustainability of their adaptation efforts.
- The community advocates for the distribution of khas lands to enable them to recover from the losses they have suffered as a result of disasters. Access to khas land is expected to increase the adaptability of affected communities to face the risk of climate change, especially if land distribution is accompanied by training and financial assistance in aid of implementing income generating programs.

 There are limited opportunities for members of the community to participate and provide feedback on climate adaptation programming. People do not even feel comfortable providing feedback.
 Community members say many vulnerable people are programs, citing favoritism and mismanagement. n June 2023, heavy rains caused the waters of the Padma River to swell, sending waves smashing violently against the banks of three villages, namely Yusuf Matubbarer Dangi, Shukur Ali Mridhar Dangi, and, Eman Ali Dangi under the North Channel Union of Faridpur Sadar Upazila, in Faridpur District, Central Bangladesh. In 10 days of unremitting river erosion, the homes of 102 families were washed away while some 10 acres (four hectares) of crop land were inundated by the river in Yusuf Matubbarer Dangi village.

This was not the first time that the Faridpur District had suffered devastation wrought by the Padma — the Gangetic delta, one of the major rivers of Bangladesh, along with the Jamuna and Brahmaputra Rivers. Over time, some 500 acres (202 hectares) of land [65 acres (26.3 hectares) in Decreer Char; 176 acres (71.2 hectares) in North Channel; 155 acres (62.7 hectares) in Char Harirampur; and 104 acres (42 hectares)] have reportedly been lost due to river erosion (Ghosh, 2022).

In the past 22 years, the Padma River has eroded 25,290 hectares, and the Jamuna River, 25,665 hectares, or a total of 50,955 hectares of land lost to just these two rivers, according to the Centre for Environment and Geographic Information Service (CEGIS). As a result, CEGIS said that over half a million people became homeless due to erosion of the two rivers in the past 22 years (The Daily Star, 2023).

Between 1988 and 2013, the Padma River eroded 66 villages in Charbhadrasan Upazila, a small subdistrict in Faridpur (Ghosh, 2022). More recently, in 2022, 114 houses and 1,000 acres (404.68 hectares) of crop lands in four villages of Decreer Char Union Parishad were swallowed up by the river.

River erosion in low-lying Bangladesh has emerged as an extreme threat to people living near the riverbanks. The major rivers -- the Jamuna, the Ganges and the Padma — change course naturally and in the process erode thousands of hectares of floodplain land and destroy crops, homesteads, agricultural lands, roads, and other infrastructures.



Figure 1. Erosion and accretion by Padma, Jamuna and the Ganges rivers of Bangladesh (1973 to 2017). (Source: Hasnat, 2018). Source: ALRD

June 26 to July 6, 2023

homeless

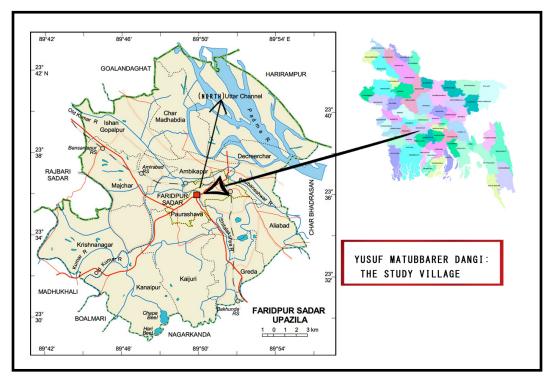
However, climate change is accelerating these natural processes, adding additional complications and increasing the severity of river erosion.

It is estimated that by 2050, the rate of bank erosion along the three main river systems will increase by 13 percent, and by 2100, by 18 percent (Aktar, 2013). As a result, some 15 to 20 million people living in these areas would lose their homes, lands, and area-specific livelihoods (LightCastle, 2022).

Bangladesh in Peril

Bangladesh is the seventh most vulnerable country in the world to climate change (Local Government Division – Ministry of Local Government of Bangladesh, 2023). Its vulnerability stems from its geographical location, topography, high population density, and heavy reliance on agriculture. Flooding, which always results from riverbank erosion, is a serious hazard that directly or indirectly causes the loss of lands and resources as well as untold suffering for millions of people. The Sixth Assessment Report (AR6) of Working Group II (WGII) of the Intergovernmental Panel on Climate Change (IPCC) — published on 28 February 2022 noted the economic and non-economic losses caused by flooding on Bangladesh: around 850,000 households and 250,000 hectares of harvestable lands have been lost due to climate-induced disasters. The loss of agricultural land has also resulted in crop failure, raising the price of rice by 30 percent between 2014 and 2021 (Huq, et al., 2022).

Bangladesh now faces more frequent tropical cyclones, tidal surges, floods, high temperatures, and changes in precipitation patterns. About



Source: ALRD

10,000 square kilometers of the total area of Bangladesh are covered with water, making it very prone to river erosion and soil degradation (LightCastle, 2022).

The Food and Agriculture Organization of the United Nations (FAO) report said that 22 percent of rural households in Bangladesh are already affected by floods and 16 percent suffer from river erosion (FAO et al., 2023).

The Bangladesh Centre for Environmental and Geographic Information Services (CEGIS) notes that every year, Bangladesh loses 32 square kilometers of land due to erosion in rivers. In its recent report, "Prediction on Riverbank Erosion 2022," the CEGIS identified 17 vulnerable locations across 12 districts, including Faridpur, all of which are located on both banks of the Jamuna, the Ganges, and the Padma rivers. If the CEGIS's forecast is correct, these 17 locations are in danger of being completely wiped out by the Padma, Meghna, and Jamuna rivers, including their adjoining rivers. Furthermore, the CEGIS warns that about 1,800 hectares of land, homesteads, roads, dams, educational institutions, bazaars, cemeteries, orphanages, and other infrastructures will no longer be a part of Bangladesh's map.

Similarly, the World Bank (WB) estimates that by 2040, cropland may shrink by 18 percent in Southern Bangladesh — which is home to a rural population numbering 19,907,094, according to the 2022 Population Census. The number of rural poor in Southern Bangladesh is at least 3,981,418 (estimated by the author). As a result, says the WB, one-third of agricultural Gross Domestic Product (GDP) could be lost by 2050 (Rita, 2022).

The social and economic impact on vulnerable families has been devastating. They have been forced to abandon their ancestral profession and migrate to cities in search of alternative livelihoods. They are not covered by social security programs of the government, largely because they have no permanent address. Nevertheless, it is the responsibility of the government to fulfill the basic rights of people displaced due to river erosion, including food, clothing, and shelter. The government can also distribute *khas* land to the landless, destitute poor. This can help to alleviate the severity of climate change impacts on lives, livelihoods, agriculture, and food security.

Faridpur District: Ferocious River and Massive Losses

Faridpur District, located in Central Bangladesh, is an agricultural region that contributes significantly to the annual food production of Bangladesh. Faridpur is highly susceptible to the impacts of climate change due to its low-lying topography and heavy reliance on agriculture. More frequent and intense rainfall events, resulting in increased flooding and river erosion, can displace rural marginalized communities, damage infrastructure, and disrupt agriculture. For instance, between 1988 and 2013, the river Padma eroded 66 villages in Charbhadrasan Upazila, a small sub-district in Faridpur (Ghosh, 2022).

River Erosion: The Case of Yusuf Matubbarer Dangi Village in North Channel Union of Faridpur

The Faridpur Sadar Upazila (or sub-district) of Faridpur district covers an area of 14.60 square kilometers and is home to 57,069 agricultural families (Bangladesh National Portal, n.d.) who make their living from agriculture and fishing. North Channel, one of the unions of Faridpur



Source: ALRD

Sadar sub-district, is located on the banks of the Padma River. This union has thus experienced severe bank erosion. Hydro-meteorological disasters (HMDs) occur regularly and to different degrees in the sub-district, becoming extreme during the monsoon period.

Every year, villages of the North Channel Union are affected by devastating river erosion during the rainy season. The Chartepara village and several parts of the Shukar Ali Mridhar village have disappeared under the Padma River. Houses, crop lands, schools, madrasas, mosques, and paved roads, among others, have been submerged in the river.

The people who have lost their homes and crops have taken shelter in the neighboring villages of Kaimuddin Matubbarer Dangi, Sultan Khan Dangi, and, Usuf Matubbarer Dangi. **Every day, the erosion of the Padma breaks the dreams of people as their fortunes sink.** They are forced to dismantle the house that they have built with their own hands and to move elsewhere.

Last June 2023, the water level of the Padma River began to rise again, triggering bank erosion and threatening the three villages of North Channel Union of Faridpur Sadar sub-district, namely, Yusuf Matubbarer Dangi, Shukur Ali in the Mridhar Dangi, and, Eman Ali Dangi.

Loss and Damage

According to the North Chanel Union Parishad office, of the 1,000 people living in Yusuf Matubbarer Dangi village, five percent are landless. Majority of the members of the village depends on land, engaging in agriculture and fishing as their main source of livelihood. Riverbank erosion in the village impacts hundreds of people as it results in damage to houses and loss of crops, cattle, and, farmland. Additionally, it erodes away public infrastructure and communication systems in the village. A member of the local government of North Chanel Union Parishad reported that 102 families in Yusuf Matubbarer Dangi village have become destitute, and at least 100 acres (40 hectares) of croplands have disappeared under the river in 10 days from 26 June to 6 July 2023 due to river erosion.

Having lost their land due to river erosion, most of the population are "temporarily landless" until they can acquire new land emerging from the river. On one hand, river erosion engulfs land on riverbanks, while simultaneously raising hundreds of acres of land from alluvial accretion in rivers, on the other.

However, people who have lost their land to river erosion cannot automatically occupy this newly created land, which is classified as *khas* land. *Khas* land, which is usually owned by the government, includes land reclaimed from the sea or from changing river courses. The *Khas* Land Management and Settlement Policy, 1997, provides that *khas* land can be distributed to, among others, families who have lost their land due to river erosion. In practice, however, this provision is not automatically nor easily enforced.

Responses by the Community

During a community dialogue organized by the Association for Land Reform and Development (ALRD) with the help of Beneficiaries Friendship Forum (BFF) — the networking partner organization of ALRD in Yusuf Matubbarer Dangi village — the community members reported that they are now living on other people's land, in different villages of the North Chanel Union — including the neighboring villages of Kaimuddin Matubbarer Dangi, Sultan Khar Dangi and Yusuf Matubbarer Dangi -- and paying an annual lease fee. They have no access to *khas* land.

A total of 15 women participated in the dialogue. All are victims of river erosion and have migrated to other areas. Most of them are still engaged in farming as day laborers on different farmlands. Some community members have put farming aside to make a living as rickshaw pullers.

During the consultation, the people decried the "massive complications" resulting from displacement from their homes, particularly concerning their livelihoods. They are applying adaptation strategies to boost their livelihood resilience against climate change. However, fragile housing, financial constraints, and lack of their own land are the greatest impediments to the sustainability of their adaptation efforts (Hossain, Babul, 2022).

Several residents of the erosion-affected area in Yusuf Matubbarer Dangi village said that river erosion has been increasing in the last two years. If



Source: ALRD

a permanent dam is not constructed, they fear those other infrastructures, including many houses, will be devoured by the Padma River. They reported that in place of the dam, the Water Development Board is temporarily installing sand-filled geo bags along the banks to stop erosion but this is not going to solve the problem.

The community members advocate for the distribution of *khas* lands to enable them to recover from the losses they have suffered. In Faridpur District, as well as in the rest of the country, access to *khas* land is expected to increase the adaptability of affected communities to face the risk of climate change, especially if land distribution is accompanied by training and financial assistance in aid of implementing income generating programs.

Unfortunately, the community members were not hopeful that they would get access to the char land, citing three reasons. Firstly, river erosion is very common and thus, people are constantly afraid of losing their land in the process. Secondly, influential people are able to grab the agricultural *khas* lands using fake documents. Finally, lack of knowledge on land documents and laws prevents the landless poor from securing land

tenure security. As a result, most of the *khas* lands are controlled by a few affluent farmers, while the larger number of marginal farmers make do with a small number of lands that emerge following a riverbank erosion in the studied area.

Responses by Authorities

Faridpur Sadar sub-district Executive Officer Liton Dhali said that the Faridpur district administration has given out cash to the victims of river erosion, along with a package of roofing materials to rebuild their houses, baby food, and cow feed. Chairpersons of the concerned unions have been asked to provide the list of affected families. If necessary, assistance would be provided to the families on the list. Their plans to build permanent embankments to prevent river erosion are in the proposal stage and have been submitted to the ministry. Dhali also said that "houses are given to the landless under the government's shelter scheme, called "Ashrayan Prokolpo." However, he claimed that people are not willing to live in those houses because there are no livelihood opportunities nearby. Dhali said that in 2022, an initiative was taken to build 25 houses in this union under the shelter scheme, "but it did not work as that land has also been eroded by the river."

North Channel Union Parishad Chairman Mofazzel Hossain said that they have prepared a list of the affected people and that erosion prevention work is ongoing in limited areas. However, they have not been able to keep up with the prevalence and extent of erosion.

The executive engineer of Faridpur Water Development Board, Partha Pratim Saha, said that a total of 13,130 sand filled geo bags have been dumped in two places in the erosion area. He said that after discussions with the authorities, a plan for a permanent dam across the one-kilometer area is underway.

Not Once nor Twice, Fuljan Bibi Displaced Seven Times

Elderly Fuljan Bibi was the proud owner of a large property that stood on the bank of the Padma River in Chartapra village of North Channel Union under Faridpur Sadar Upazila (sub-district) of Faridpur district in Bangladesh.



Source: ALRD

In 2018, the large house she built for her family was devoured by the river Padma, the largest river in Bangladesh that is known for its strong, rough currents. Fuljan and her family became homeless.

Fuljian has lost her home not once, but seven times. Each time, she had built a new house by her own hands. No one, including anyone from the government, had provided any assistance. "People from many NGOs and the Water Development Board visited me to listen to my suffering and to take pictures, then left," said Fuljian.

Fuljian built her seventh home in Yusuf Matubbar Dangi village in 2021. She lives there with her two elder sons and their families. They make their living as day laborers and rickshaw drivers.

Again, she told, "Once I had cows and goats at home, but I sold all. Cows and goats cannot be reared for thieves and robbers. The robbers can easily come and steal the cows by trawlers as my house is near the river. We are in great suffering; no man can bear such suffering."

Recently, staff of the ALRD and its local network partner organization BFF visited Yusuf Matubbarer Dangi village and saw that river erosion had started. They witnessed the Water Development Board deploying geo sand bags to mitigate the erosion temporarily.

On 28 May 2023, the erosion started again, affecting a two-kilometer stretch of land along the riverbank. As a result, 10 acres (four hectares) of crop land were lost.

Fuljan Bibi will be displaced for the eighth time if the river erosion is not arrested.

Every day, the erosion of the Padma River shatters the dreams of people as their fortunes sink. They are forced to dismantle the houses that they built with their own hands and to move elsewhere.

Equitable Distribution of Khas Land: Vital to Community Adaptation and Resilience to Climate Change

Bangladesh was characterized by significant land inequality and tenure insecurity during the British colonial rule. After gaining independence in 1971, land reforms were implemented to address this issue. However, the effectiveness of these reforms has been complex and challenging due to various factors, including poor implementation, corruption, high population density, socio-economic disparities and resistance by powerful landowners. Land tenure systems in Bangladesh have evolved over time and can be broadly classified into three main categories: ownership-based tenure, sharecropping, and *khas* land.

Khas land refers to government-owned land that is distributed to landless and marginalized individuals or communities. In rural areas, 89 percent of landholders own less than one hectare, and 39 percent have less than 0.2 hectare (LANDac, 2019). A large proportion of the rural population in Bangladesh are landless, relying on agricultural wage labor for their income; have only a small plot of land; or are tenants or sharecroppers.

The major sources of *khas* land include land reclaimed from the sea or from changing river courses, land held in excess of the landholding ceiling, and land acquired due to cancellation of ownership, among

others. *Khas* land is usually government-owned land managed by the Ministry of Land.

According to the *Khas* Land Management and Settlement Policy, 1997, as well as according to the spirit of the Constitution of Bangladesh, access to *khas* land is the right of the landless marginalized poor people. Moreover, the Land Reforms Ordinance, 1984, section 7, talks about making *khas* land available for a homestead. Section 7(1) states that

"[l]n the rural areas if any Khas land fit for being used as a homestead is available, the government shall, in setting such land, give preference to landless farmers and laborers."

Under the *Khas* Land Settlement Policy, agricultural *khas* land can be distributed for a 99-year lease period. Under the policy, landless families (defined as those who own less than 0.10 acre or 0.04 hectare) who work in agriculture should be the main beneficiaries with priority going to poor families of freedom fighters, families who have lost their land due to river erosion, landless families without a homestead, and families who have lost land due to government expropriation.

Recent officially published statistics on *khas* land are not available. However, it is estimated that in the last 20 years, the amount of *khas* land has ranged from 1.69 million acres (683,919 hectares) to five million acres (2,023,428 hectares).

According to government sources, not all *khas* land is worthy of distribution and that of the total *khas* land an estimated 17.3 percent is non-distributable (Barkat et al., 2020).

There is no available data on how much *khas* land has been distributed to landless and other poor families. However, only 11.5 percent of the agricultural *khas* land is reportedly held by people who rightfully deserve it and that the remaining 88.5 percent of agricultural *khas* land is under the control of powerful people, who are not eligible under any criteria of the *Khas* Land Settlement Policy (Barkat et al., 2022).

Key Issues Related to Land Tenure and Climate Change

 There is no authentic information about the number of river-eroded displaced people of the Faridpur Sadar Upazila. In order to find out the actual number of displaced people, apart from official survey or research, the displaced people should be brought into the monitoring process by involving the local government. Besides, it is essential to create a database of landless marginalized communities under the supervision of the local government. The list should be updated every year. With such a database, the corruption that takes place in the preparation of the list of landless people at the local level can be reduced.

- There are limited opportunities for members of the community to participate and provide feedback on climate adaptation programming.
 People do not even feel comfortable providing feedback.
- Adaptation programs are deemed unfair. Community members say many vulnerable people are left out, citing favoritism and mismanagement.
- The rural population affected by river erosion are skilled and have practical indigenous knowledge. Farmers who are skilled in agricultural production have the ability to produce large amounts of crops on a small amount of land. If they are given their own land, they can contribute to the development of the country. Therefore, government land should be systematically distributed to the landless. Employment should be created through special projects. Apart from assistance provided through social security programs, people who are forced to migrate as a result of land loss should be assisted in undertaking their new livelihoods.
- Local governments are not adequately capacitated nor engaged in the planning process of climate action. They have no actual data or information about the number of climate migrants, nor even regarding government support and further action to protect the climate vulnerable community.
- Land ownership of the poor and destitute is very low. The landless in rural areas are economically and politically powerless. They are also deprived of higher education and cannot get out of the vicious cycle of hereditary poverty. These people are the most vulnerable to climate change impacts. Although they receive some benefits from the government's social security program, it is not enough to lift them out of poverty and marginalization.
- There are several mega projects planned in Bangladesh that are likely to take over *khas* lands. These projects are expected to displace thousands of people from their homes and livelihoods, many of whom are already struggling to cope with the impacts of climate change.

These mega projects are often developed without adequate consultation with the communities that will be affected, and without proper consideration of the projects' social and environmental impacts. This lack of community engagement and participation can lead to conflicts and tensions between project developers and affected communities, which can further exacerbate the vulnerability of the latter to climate change impacts.

Call to Action

- Tenure security, in a variety of forms, should be provided to improve land access for the poor, and to strengthen their negotiating position.
- All new accretion of char lands should be brought under government control/supervision. District wise number and total amount of char lands need to be updated each year.
- The Diara survey of char land should be done quickly, with the participation of civil society and local farmers.
- Efforts must be made to involve the communities that are most vulnerable to climate change in all environmental programs, including those that are funded by the Bangladesh Climate Change Trust (BCCT).
- Every climate project should assess the need for coordination with other ministries, agencies, or organizations during the planning stage.
- Data related to climate projects should be gathered with accuracy and transparency, and made available to the public.
- To measure the impact of climate projects at different stages, it is important to collect baseline data on the potential beneficiaries.
- The traditional culture of Bengal pertaining to shelter -- owning a house on a small piece of land, growing plants and vegetables, rearing cows and goats, among others -- should be nurtured and developed by the government to replace the barrack-based shelter project culture. Houses are being built on *khas* land for the landless under the government shelter scheme. But because of the small amount of available *khas* land, there is no opportunity to implement any income-generating activities using that land. ■

References:

- Ahmed, M., Kabir, Md. R., and Billah, Md. A. (2019). Impact of Riverbank Erosion on Population Displacement & Socio-economic Condition: A Case Study on River Bank of Padma, Faridpur, Bangladesh. International Academic Research Journal of Business and Management, Volume 1(6):17-24. https://www.researchgate.net/publication/335970364_Impact_of_Riverbank_Erosion_on_Population_Displacement_Socioeconomic_Condition_A_Case_Study_on_River_Bank_of_Padma_Faridpur_Bangladesh
- Aktar, N. (2013). Impact of Climate Change on Riverbank Erosion. International Journal of Sciences: Basic and Applied Research (IJSBAR), Volume 7(1):36-42. https://www.researchgate.net/publication/ 281607164_Impact_of_Climate_Change_on_Riverbank_Erosion
- Bangladesh National Portal. (n.d.). *At a Glance*. http://dae.sadar.faridpur.gov.bd/en/site/page/ %E0%A6%8F%E0%A6%95-%E0%A6%A8%E0%A6%9C%E0%A6%B0%E0%A7%87
- Barkat, A., Suhrawardy, G.M., Shawaly, H.H., Hasan, M.M., and Rahman, M.I. (2020). *Follow-up Study on Status of Agricultural Khas Land, Government Policy on Khas Land Distribution, Its Implementation and Impact*. HDRC and ALRD.
- Bangladesh Bureau of Statistics (BBS). (2022). Bangladesh Labour Force Survey. BBS-Ministry of Planning.
- Bangladesh Bureau of Statistics (BBS). (2022). *Population and Housing Census 2022 Preliminary Report;* Bangladesh BBS-Ministry of Planning. https://sid.portal.gov.bd/sites/default/files/files/sid.portal.gov.bd/ publications/01ad1ffe_cfef_4811_af97_594b6c64d7c3/PHC_Preliminary_Report_(English)_August_2022.pdf
- FAO, IFAD, UNICEF, WFP and WHO. (2023). The State of Food Security and Nutrition in the World 2023: Urbanization, agrifood systems transformation and healthy diets across the rural–urban continuum. FAO. https://doi.org/10.4060/cc3017en
- Ghosh, K. M. (2022). An empirical study of riverbank erosion in Charbhadrasan Upazila of Faridpur District, Bangladesh. https:// www.tandfonline.com/doi/full/10.1080/21650020.2022.2123034
- Hasnat, M. A. (2018, October 12). Over 160,000 hectares lost to Padma, Jamuna in four decades. In *Dhaka Tribune*. https://www.dhakatribune.com/bangladesh/nation/158001/over-160-000-hectares-lost-to-padma-jamuna-in

- Hossain, B., Shi, G., Ajiang, C., Sarker, Md. N. I., Sohel, Md. S., Sun, Z., and Yang, Q. (2022). Climate change induced human displacement in Bangladesh: Implications on the livelihood of displaced riverine island dwellers and their adaptation strategies. *Front. Psychol.Sec. Environmental Psychology*, Volume 13 2022. https://www.frontiersin.org/articles/10.3389/fpsyg.2022.964648/full
- Huq, S., Bodrud-Doza, Md., Tahsin, K. T., and Khan, M. R. (2022, March 20). What does the IPCC say about Bangladesh in its Sixth Assessment Report of Working Group II? In *The Business Standard*. https://www.tbsnews.net/thoughts/what-does-ipcc-say-about-bangladesh-its-sixth-assessment-report-working-group-ii-387822
- Jabbar, Md. A. (1978). *The Land Tenure System in Bangladesh:*Background paper III. Ministry of Agricultural, Government of the People's Republic of Bangladesh.
- LANDac. (2019). Food Security and Land Governance Factsheet:

 Bangladesh. https://www.landgovernance.org/wp-content/uploads/
 2019/09/20160608-Factsheet-Bangladesh.pdf
- LightCastle. (2022). The Impact of Climate Change on Bangladesh (Part I: Land). https://www.lightcastlebd.com/insights/2022/04/the-impact-of-climate-change-on-bangladesh-part-i-land/
- Local Government Division Ministry of Local Government of Bangladesh. (2023). *Climate Vulnerability Index (CVI)*. UNDP. https://www.undp.org/bangladesh/publications/climate-vulnerability-index-draft
- Naser, N. (2020). River and River Basin Diversity of Deltic Bangladesh A Review on the Country's Rivers and River Basin. Nature Study Society of Bangladesh.
- Rahman, T. (2019). Land Law in Bangladesh Rules & Regulations & Everything you need to know. https://tahmidurrahman.com/land-law-in-bangladesh-rules-regulations-everything-you-need-to-know
- Rita, S. (2022, November 1). World Bank: Bangladesh to lose one-third of agricultural GDP by 2050. In *Dhaka Tribune*. https://www.dhakatribune.com/bangladesh/297147/world-bank-bangladesh-to-lose-one-third-of
- Roy, P. (2023). Erosion taking toll on millions. In *The Daily Star.* https://www.thedailystar.net/news/bangladesh/news/erosion-taking-toll-millions-3391891
- Suhrawardy, G.M. and Tanchangya, K.K. (2021). Family Farming in Bangladesh: Progress, Challenges and Opportunities. ALRD and AFA.

- Suhrawardy, G.M., Ripa, S. K. et al. (2022). Report on the Community Dialogues in Bangladesh, Identification of legal and policy gaps regarding women's access to land rights, social norms and behavioral practices among different communities. ALRD and Landesa.
- World Bank. (2022). Country Climate and Development Report- South Asia Bangladesh. The World Bank Group. Washington. https://openknowledge.worldbank.org/server/api/core/bitstreams/6d66e133-e49d-5ad9-b056-7b1a6c6206ed/content

Citation:

Ripa, S. K. (2023). Bangladesh: Communities face off with a river that swallows lands and homes: A Case Study of River Erosion in Yusuf Matubbarer Dangi Village in North Channel Union of Faridpur District. Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC). [Paper prepared by the Association for Land Reform and Development (ALRD) for the pilot phase of the Collective Action on Mainstreaming Land Rights of the Rural Poor in the Climate Discourse in Asia Pacific, zooming in on Bangladesh]. This collective action is supported by the Global Forum on Agricultural Research and Innovation (GFAR/GFAiR) and the European Union (EU)].