



Nomad Fishers: A Socially Excluded and Climate Vulnerable Fishing Community in Bangladesh

Sharif Ahmed Sazzad¹, Mahmudul Hasan Mithun², Moniruzzaman¹, Ayrin Ahmed³,
Mohammed Samiullah⁴, Mohammad Abdul Hamid⁵, Raf Ana Rabbi Shawon⁶,
Habib Mohammad Ali^{7*}, Jahedul haque⁸, Atiqur Rahman Sunny^{1*}

¹Pathfinder Research and Consultancy Center, Bangladesh

²Bangladesh Fisheries Research Institute, Floodplain Substation, Santahar, Bogura, Bangladesh

³School of Social Science, Humanities and Languages, Bangladesh Open University, Bangladesh

⁴Center for Climate Change and Environmental Research (c3er), Brac University, Bangladesh

⁵Kasba Government High School, Brahmanbaria, Bangladesh

⁶Laboratory of Wildlife Resources, Gifu University, Japan

⁷Department of Media Studies and Journalism, University of Liberal Arts Bangladesh (ULAB), Bangladesh

⁸Department of Anthropology, University of Chittagong, Bangladesh

*Corresponding Author: atikunny@yahoo.com, habib.mohammad@ulab.edu.bd

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ABSTRACT

This study discussed the sense of belonging, position, livelihood sustainability, and vulnerabilities of the fishery-dependent nomadic community in Bangladesh. Due to technological advancements, infrastructural developments, and progress in medical science, the ancient traditions and culture of this nomadic community are on the verge of extinction. Fishing is identified as the most sustainable livelihood approach for the nomadic community compared to other professions, with an average daily income of up to BDT 700 ± 100 during the fishing season. However, this community faces numerous natural and anthropogenic threats that affect their traditional occupations and livelihoods, making their lives more vulnerable. Natural drivers include climatic catastrophes, storms, winds, cyclones, and tides. Anthropogenic drivers include fishing bans, dependency on a single profession (fishing), lack of effective alternative income-generating options, and social, economic, and cultural exclusion. The government and responsible NGOs should take a holistic approach to design livelihood interventions for nomadic fishers.

INTRODUCTION

In the intricate fabric of Bangladeshi culture, there is a unique and enduring community referred to as the Bede people, who are nomadic fishermen. In academic discourse, they are referred to as "River Gypsies" or "Water Gypsies" due to their itinerant lifestyle on the waterways (Maksud & Rasul, 2006; Islam *et al.*, 2018a). The origins of the term "bede" are subject to historical discussion. Some scholars propose a connection to the ancient Bedouin people, while others argue for a link to the Mangta racial group of Arakan, Myanmar, who came to Bangladesh in the 1630s (Chowdhury, 1998; Moniruzzaman *et al.*, 2023). The Bede people, who are culturally and socially apart from the mainstream Bengali groups, maintain

their own language, which helps to strengthen their cultural connection as they travel over the waterways of Bangladesh. Their means of living are intricately connected to the river since they partake in diverse customary vocations such as fishing, snake enchanting, jewelry and spice commerce, and ceremonial devotion (**Cheung *et al.*, 2009; Das, 2011; Islam *et al.*, 2016**). Although the Bede people play a crucial part in Bengali culture, they experience widespread marginalization and deprivation, with limited access to fundamental necessities such as food, healthcare, education, and housing.

Nomadic fishers, who are socioeconomically marginalized and socially excluded, frequently reside on the outskirts of society and their perspectives are typically disregarded in political discussions (**Rahman *et al.*, 2002; Islam, 2011**). Fishing is not just a source of food for the Bede community, but it also carries significant social and cultural importance. It symbolizes more than simply a way to make a living, but rather a way of life for the community (**Gatewood & McCay, 1988; Onyango, 2011; Islam *et al.*, 2017**). Nevertheless, their conventional livelihoods are progressively marginalized due to the process of modernization, technological progress, and evolving societal attitudes. Nomadic fishermen face challenges including illiteracy, limited family planning, and child marriage due to an average household size of around seven persons residing on a single boat (**Maksud & Rasul, 2006; Das, 2013; Kuddus *et al.*, 2020**). Their ability to move on the waterways of Bangladesh, especially in places like Munshiganj, Shariatpur, Chandpur, Laxmipur, Bhola and Patuakhali, makes them susceptible to natural disasters, piracy, and economic difficulties. They are restless fishing tribes who travel in small boats over wetlands, rivers, and coastal areas (**Drinkwater *et al.*, 2010; Kuddus *et al.*, 2021**). They possess a higher level of technical expertise compared to non-nomadic fishermen. Nomadic fishers are exclusively engaged in fishing as their primary occupation, in contrast to other fishers. As a result, individuals who are involved in fishing operations have no other option for survival and must continue to engage in this occupation despite the challenges they face.

Historically, gypsies or nomadic fishers have been engaged in a continual cycle of migration, moving from one site to another without being able to establish any legal claim to the territory of the state. The majority of them do not own property rights, but recently a small number of affluent nomadic fishermen have obtained ownership of land. However, they seldom have the opportunity to employ external workers for fishing, as their family members are actively involved in the process of catching fish. Due to technical breakthroughs, infrastructural expansions, and advancements in medical research, the gap between rural and urban living has significantly decreased. While this transition has been beneficial for the general population, it has resulted in the decline of the nomadic community, endangering their old traditions and culture (**Islam & Chuenpagdee, 2018**). In contemporary times, the majority of individuals no longer have faith in the efficacy of spiritual healing services. Furthermore, due to the proliferation of smartphones and other digital gadgets, people have lost interest in traditional forms of entertainment such as snake charming or monkey performances. Therefore, their conventional occupations have become obsolete in contemporary times, with the exception of fishing. Due to the prevailing poverty, a significant number of nomadic women have resorted to wandering the bustling city streets, seeking assistance from its inhabitants through begging.

Approximately 80,000 nomads reside in Bangladesh, with a majority of them lacking literacy skills (**Islam & Chuenpagdee, 2018**). The cultural and traditional existence of this group is seriously threatened as a result of modernity, social pressures, and ecological changes in their surroundings. Nomadic communities also have numerous challenges as a result of natural calamities, such as the need to suspend fishing activities and the sinking of their boats owing to tidal surges. Due to the limited size of their boats, they are unable to venture into the estuary to harvest the hilsa fish during the monsoon season. Occasionally, river pirates abduct them and request a sum of money as payment (**Alam et al., 2023a**). If individuals desire to borrow money from their relatives or neighbors, they will pledge their valued possessions, such as jewelry and other expensive items, as collateral. Under extremely challenging circumstances, they were pushed to sell their fishing equipment, boat engines, and other possessions. The proceeds from the sale forced them to work as crew members on boats belonging to other nomads (**Islam, 2018**).

In this context, understanding the challenges faced by nomadic fishers is crucial for developing targeted interventions that address their vulnerabilities and promote sustainable livelihoods. This paper explored the social exclusion, economic deprivation, and climate vulnerability of nomadic fishers in Bangladesh, shedding light on their unique struggles and advocating for inclusive policies that safeguard their rights and dignity.

MATERIALS AND METHODS

1. Study area

The study was carried out in the nomadic fishing settlements of Naria Upazila, located in the Shariatpur area of Bangladesh. The Naria Upazila, renowned for its vast network of waterways and abundant aquatic resources, offered an optimal environment for investigating the livelihood dynamics of itinerant fishers. The chosen communities in Naria Upazila consist mainly of professional fishermen who are actively involved in fishing throughout the year. Due to their close association with the waterways and their need on fishing for survival, they were crucial subjects for comprehending the complex socio-economic dynamics of nomadic fishing groups.

2 Data collection

This study delves into the socio-economic landscape of nomad fishers, employing a mixed-method approach to capture the multifaceted dimensions of their livelihoods and vulnerabilities. The collection of quantitative data focused on economic variables that are crucial for ensuring sustainable lives. The data included income levels, spending habits, and contributions to the national GDP using surveys and structured interviews. The use of quantitative analysis allowed for the clear observation of economic trends and patterns that are essential for evaluating the community's financial ability to recover from challenges. In addition to quantitative measures, qualitative approaches were used to clarify the social dynamics inside the Bede community. The study employed participant observation, in-depth interviews, and focus group discussions (FGDs) to investigate the topics of social exclusion,

vulnerabilities, and the likelihood of being excluded. The qualitative findings provided intricate viewpoints on the actual experiences and societal standing of nomadic fishermen, enhancing our comprehension of their socio-economic environment. The interviews centered on different facets pertaining to nomadic fishermen, specifically their social affiliation and status in society, their economic endeavors, and their susceptibility to climate-related risks. Additionally, they analyzed the factors that influence their climate and livelihoods. Furthermore, we instructed participants to identify the elements accountable for ecological changes and suggest potential solutions.

In addition, a comprehensive examination of the current body of literature strengthened the contextual accuracy of our results, guaranteeing consistency with established research and theoretical frameworks. The research approach was guided by a strong focus on ethical considerations, ensuring rigorous compliance with societal norms, confidentiality, and anonymity regulations. By adhering to ethical principles, our aim was to maintain the integrity and legitimacy of our research findings.

3 Data analysis

The data gathered from the surveys were analyzed using MS Excel (Version 2021), utilizing descriptive statistics such as frequencies and percentages. In order to improve understanding, the results were visually shown using graphs and tables, providing visual depictions of the data. In order to verify the findings obtained from the quantitative analysis, a total of nine household interviews (three in each community) and three focus group discussions (FGDs) were carried out within the fishing communities of the study locations. The qualitative encounters provide supplementary insights and context to enhance the quantitative findings. By engaging in an iterative process of analyzing and validating data, we were able to gain a thorough grasp of the socio-economic dynamics and social vulnerability landscape across nomad fisher communities.

RESULTS AND DISCUSSION

1. Belongings and Pposition of nomad fishers and other fishing communities in Bangladesh

Within the riverine terrain of Bangladesh, which is marked by frequent floods and natural disasters, fishing communities play a crucial role in both the economy and the local food security. Within these communities, it is common to find nomadic fishers who traverse the country's waterways, participating in both commercial and small-scale fishing operations alongside their counterparts who mostly operate on land. Although nomadic fishermen depend on fisheries for their livelihoods, they encounter specific difficulties and hold a distinctive position (38.7%) within the fishing industry (Fig.1). Nomad fishermen have established collaborative partnerships with fishermen who operate on land, creating a network of reciprocal assistance and comprehension. Nevertheless, their ability to obtain loans and credit (55.5%) from official financial institutions is restricted because they do not possess land that can be used as collateral for mortgages (Fig. 01). Instead, they frequently rely on local informal lenders, commonly referred to as *dadondar* and *bepari* (65.4%), to fulfill their financial

requirements (Fig. 1). Although informal loans offer immediate assistance, they frequently involve unfavorable conditions, such as reduced pricing for fish delivered to the lenders and high interest rates on borrowed cash, which worsen the economic vulnerability of nomadic fishermen (Sunny *et al.*, 2023).

Curiously, it is worth noting that nomadic fishermen possess their own administrative authority, referred to as the Sarder, who plays a vital role in overseeing internal dynamics and settling disagreements within the community. Clan-based institutions enhance the unity and responsibility among nomadic fishers, making it easier for them to make decisions together and resolve conflicts (76.7%). The Sarder also manages the movement of itinerant fishermen, deciding how long they remain in different communities and arranging group travel plans. During periods of confrontation with sedentary fishers, influential individuals, or governmental authorities, it is common for nomadic fishers to seek sanctuary and assistance from beparis, who offer them refuge and safeguard them during fishing ventures. Nevertheless, nomadic fishers frequently encounter economic difficulties, which compel them to sell fish directly to customers at reduced costs in order to alleviate financial burdens particularly during fishing ban (84.5%). In order to improve the economic resilience and social inclusion of nomadic fishers, it is important to take into account the complex factors at play and utilize the existing social structures and networks to support sustainable livelihoods and well-being within the community (Alam *et al.*, 2023b).

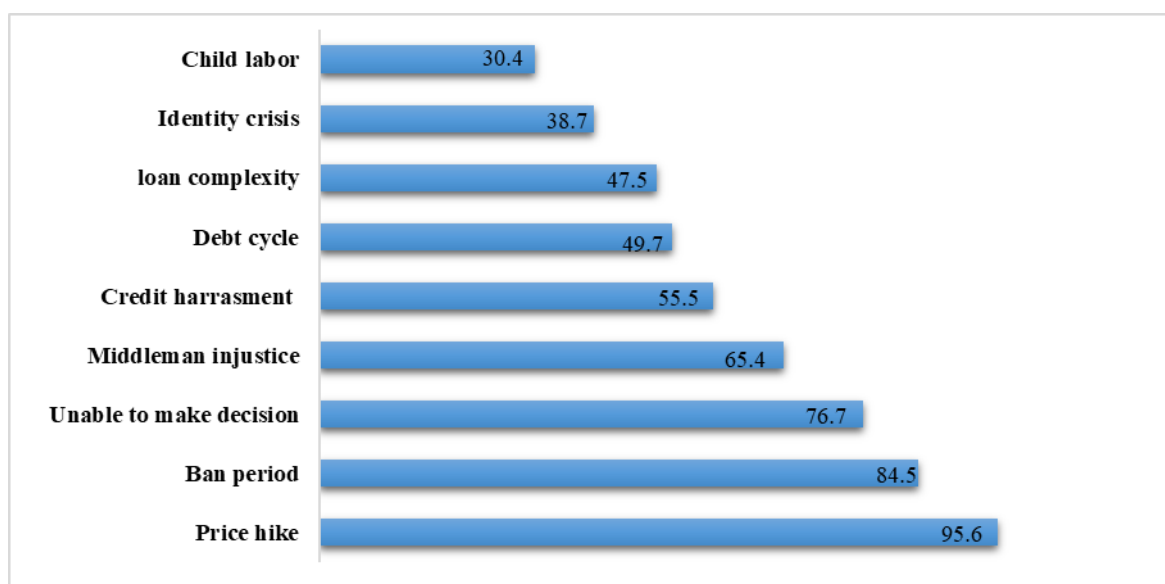


Fig. 1. Factors affecting the position of the nomad fishers

2. Fishing as a sustainable profession for nomads

In Bangladesh, nomadic people make a living from a range of sources, such as snake charmers and conventional medical procedures. Among these, however, fishing stands out as being more sustainable. Success in business (94.5%) brings benefits in terms of relationships and subjectivity in addition to money (Fig. 2). Nomadic fishermen place great emphasis on the ability to move to better fishing spots, especially when faced with challenging conditions like high salinity levels in rivers. Access to freshwater species, which are required for everyday

tasks like cooking and bathing, is ensured by this mobility. Because they dwell near the ocean, they have constant access to fisheries resources (78.5%), which allows them to meet their protein demands and provide food security. Since 80–90% of the protein in their diet comes from the fish they catch, it is obvious that they are dependent on fishing. Depending on fishing technology and season, nomadic fisherman can make between \$80 and \$220 per month. They find fulfilment in their profession. During peak seasons, daily earnings could surpass \$260, particularly when catching in-demand species like the hilsa. With this income, they can save money, repair or purchase fishing boats, renovate their shelters, and even purchase land for longer-term habitations. Nomadic fisherman also creates jobs in the area by hiring people from the land for fishing operations, processing, marketing, and transportation. Their deep ecological knowledge helps them find good fishing areas, which allows them to out fish local non-nomadic fisherman using similar gear. Despite the risks and uncertainty, nomadic fishermen never waver in their commitment to their craft or in their sense of cultural identity. They find comfort and happiness in continuing their family's fishing tradition, which provides them with a sense of purpose and community in addition to financial assistance.

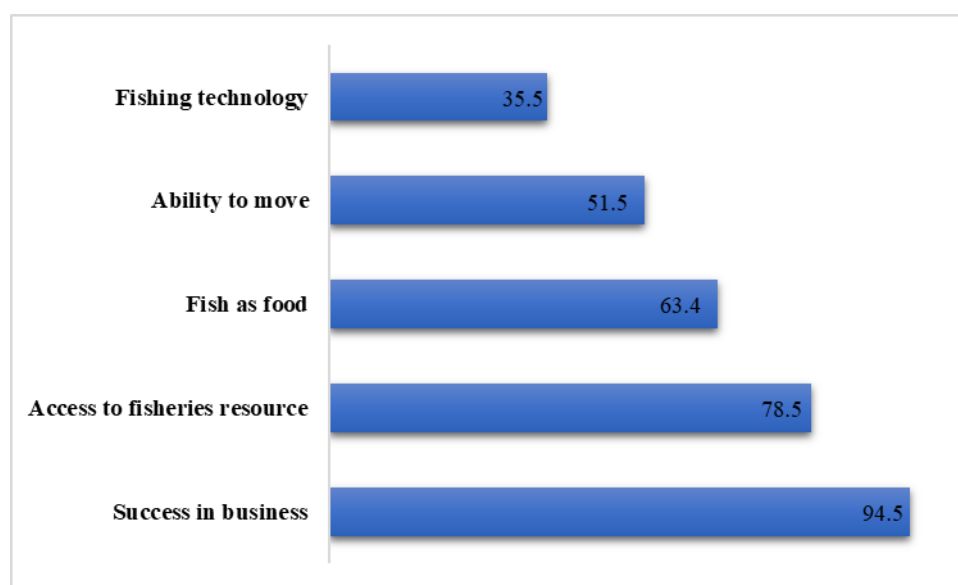


Fig. 2. Factors inducing fishing as a sustainable profession

3 Social exclusion and vulnerability

Nomadic fishers are gradually being reticulated in every stage of our society and are the most neglected marginalized community. Regularly they pass through tremendous economic, social and cultural exclusion just because of their lower position in society (Fig. 3). But through so many things, it is to be hoped that the nomads gain their rights to vote in 2009. It's such a great achievement for them to get initial recognition from the state throughout voting on the national election. Bangladesh is a conservative Muslim patriarchic society (Hossain *et al.*, 2023a). Here, wage earners and family-owned men and mainstream societies try to avoid direct entry of nomadic communities. Despite strictly practicing religious affairs here, nomadic women get enormous liberty, self-employment and individual mobility to work freely (Fig. 4). Generally, the term "fisher" refers to men who catch, collect, and sell fish in the market, but this scenario

is quite different in nomadic fishing communities. In these communities, women play a significant role in fishing-related activities alongside men. In contrast, in non-nomadic fishing societies, women's primary responsibilities often involve household chores and childcare. However, in nomadic communities, women actively engage in fishing alongside their husbands and families. Typically, men are involved in catching fish and trading them locally to earn money, while women take on the remaining tasks, such as steering boats, recasting equipment, and drying nets at the riverside. They also sometimes sell fish door-to-door to neighbors. During the development of patriarchal small-scale fishing societies, all money and assets were reserved for men, and women's participation was often seen as that of family members or, in many cases, voluntary. Additionally, women are responsible for all other family duties (**Hussain et al., 2023b**). As a result, they are deprived of breaks, even during pregnancy, as they must work hard to ensure their family's survival. Conversely, in non-fishing nomadic families where women are the primary earners, they often appear older than their actual age, while men contribute by helping to care for the family.

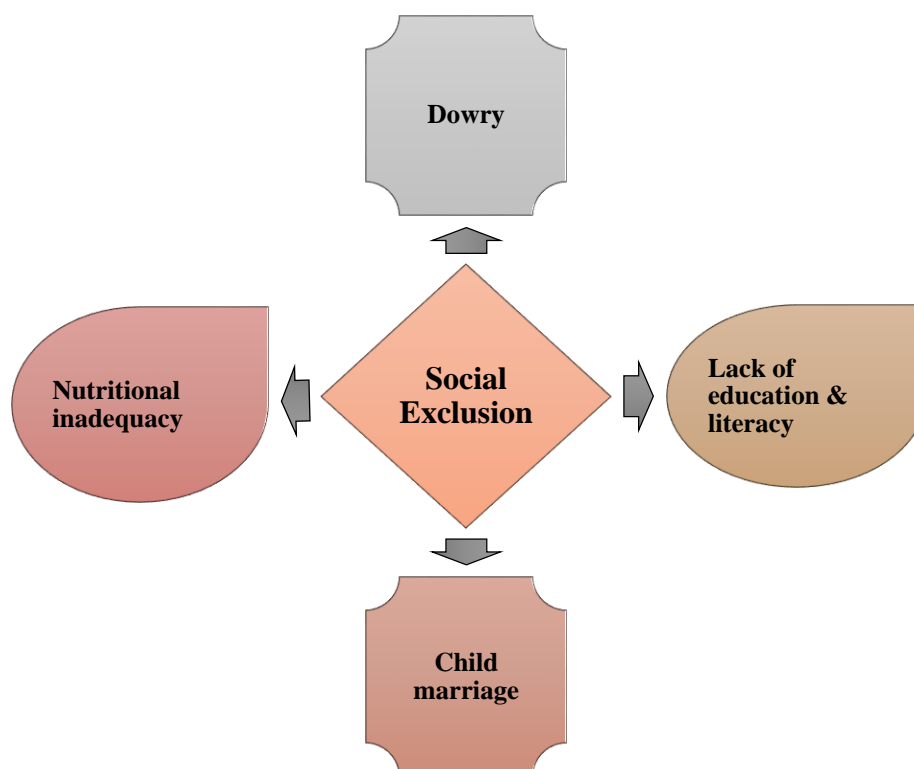


Fig. 3. Social exclusion factors for nomad fishers

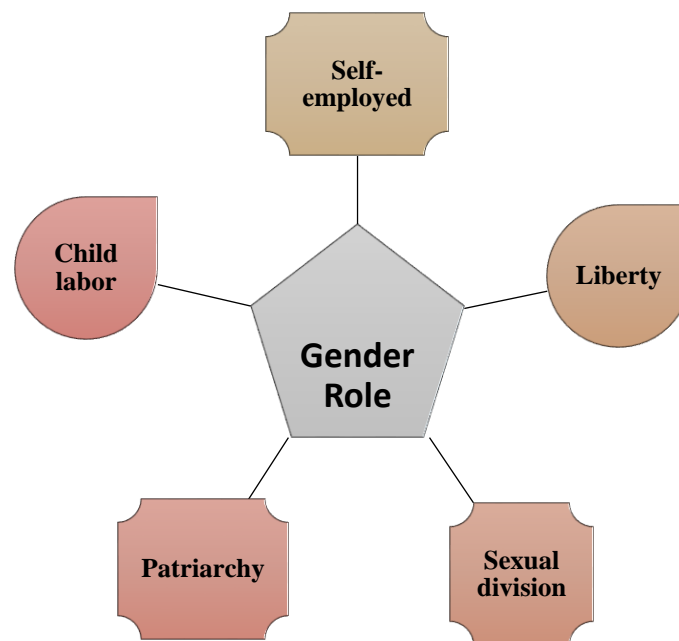


Fig. 4. Gender role in nomad community

Nomadic fishers are born and raised by the riverside, developing a dynamic ecological understanding and a keen awareness of their resources, fish sanctuaries, and the surrounding environment. They face various climatic catastrophes, including storms, winds, cyclones, and tides (**Islam *et al.*, 2018b; Chakma *et al.*, 2022**). During adverse conditions, women are particularly vulnerable, facing crises related to access to clean drinking water, poor sanitation, and health issues. Polygamy, dowry, child marriage, patriarchy, and adolescent labor are prevalent practices among the majority of nomadic fishers (**Kuddus *et al.*, 2022; Bari *et al.*, 2023; Rana *et al.*, 2023**). Undoubtedly, the most affected individuals are nomadic women, who suffer significant impacts on their reproductive health and mental well-being (**Islam & Chuenpagdee, 2017**). Some of the major vulnerabilities faced by nomadic fishers are illustrated in Fig. (5).

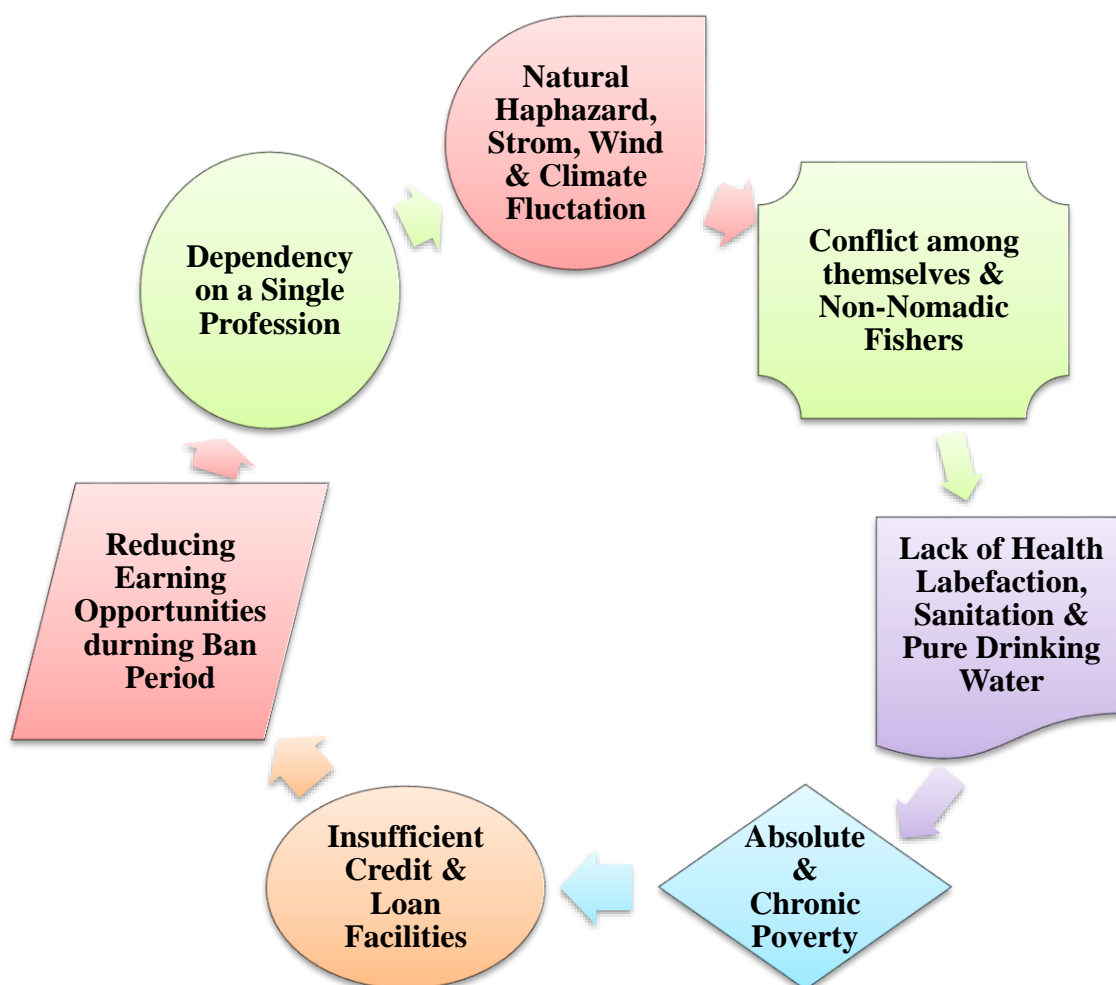


Fig. 5. Vulnerability of nomadic fishers

CONCLUSION

In summary, while nomads with fishing gear and access to fishing grounds may achieve better incomes, they face significant gaps in essential well-being criteria such as literacy, health, and nutrition. Their livelihoods are unsustainable without addressing these needs, and interventions are crucial to improve their living conditions. The isolation of houseboat living further heightens their vulnerability and risk of exclusion. To enhance their situation, policymakers must prioritize land access for nomadic communities, as many link their livelihood sustainability to stable, land-based housing. Securing land rights will improve their sanitation and education services. The development of new islands (Chars) in the river could provide suitable rehabilitation areas. Most nomadic fishers desire permanent land residency, with few willing to abandon fishing. Ensuring access to sustainable fishing practices is vital for their material success. Education is also essential for upward mobility, reducing child labor and dropout rates. Support during fishing bans is necessary to prevent food insecurity and loss of income. Furthermore, it is important to create alternative income opportunities to reduce dependency on unstable fisheries. Engaging communities in the design of livelihood

interventions will ensure they are relevant and effective, adopting a holistic approach that encompasses all aspects of the value chain.

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