

ZIBELINE INTERNATIONAL™
PUBLISHING

ISSN: 2682-7964 (Online)

CODEN: SVS0C5

Social Values and Society (SVS)

DOI: <http://doi.org/10.26480/svs.01.2025.53.58>

Social Values & Society | SVS



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RESEARCH ARTICLE

EVALUATING SPATIAL SUITABILITY FOR THE LIVING CHOICES OF FLOATING POPULATIONS IN DHAKA CITY

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ARTICLE DETAILS

Article History:

Received 23 March 2025

Revised 11 April 2025

Accepted 18 May 2025

Available online 25 June 2025

ABSTRACT

This study explores the dynamics of Dhaka's floating population individuals who lack permanent residence and formal identification, leaving them marginalized and voiceless in society. Data were collected through a survey of 70 respondents, supplemented by non-participant observation and informal interviews at three key locations, including Sadarghat, Kamalapur, and the Dhaka University area. Findings reveal that limited formal education among this population restricts access to stable employment, with unemployment being a significant driver of migration to Dhaka. This study investigates the varying dimensions of livability across three key areas. Kamalapur demonstrates strength in providing clean water and sanitation facilities, Sadarghat stands out for its robust physical infrastructure, including markets, religious spaces, and floating accommodations at the launch terminal; while the Dhaka University area stands out for its street cleanliness and ease of access, reflective of its academic setting. Social conditions further shape these urban experiences, with employment opportunities prominent in Kamalapur and Sadarghat, and strong community networks and safety features evident in all three sites. Notably, food security and personal safety are emphasized within the university zone. The research also uncovers income inequalities; Kamalapur faces the highest disparity, Dhaka University the lowest, and Sadarghat occupies a middle ground.

KEYWORDS

Floating people, Suitability, Migration, Economic inequality, Dhaka

1. INTRODUCTION

In the vibrant heart of Dhaka, Bangladesh's sprawling capital, thousands live on the margins of urban life without stable housing. Among them is Rafiq (a pseudonym), a representative of the city's "floating population"—individuals who navigate the city daily in search of shelter and informal work. His mornings begin on a cloth near Kamalapur station, awakened by the hum of arriving trains. Like many, Rafiq migrated from a rural area due to economic hardship or personal tragedy. The term "floating population," in use since the 19th century, refers to people without permanent housing, often engaged in transient urban activities. The Bangladesh Bureau of Statistics defines them as individuals counted in public spaces such as stations, terminals, and open areas on census night (BBS, 1991). Unlike slum dwellers, they lack even semi-permanent residences, often sleeping on pavements, under stalls, or beside construction sites.

1.1 Floating Population In Bangladesh

The floating population in Bangladesh comprises a highly vulnerable group of transient individuals who frequently migrate due to economic hardship, natural disasters, and the absence of permanent shelter. This population primarily consists of rural-to-urban migrants, seasonal laborers, and displaced individuals who settle temporarily in urban centers such as Dhaka and Chattogram. According to the Bangladesh Bureau of Statistics, over 700,000 individuals in Dhaka alone are classified as part of the floating population, living in informal settlements or directly on the streets (BBS, 2022). Rapid urbanization, widening economic disparities, and climate change-induced displacement have significantly contributed to the growth of this group (Rahman et al., 2020). Climate-induced migration is a major driver of the floating population. Coastal regions such as Barisal, Bhola, and Satkhira are among the largest contributors of climate refugees, where rising sea levels and frequent cyclones compel residents to relocate to urban areas (Ahmed et al., 2021).

A study by the International Organization for Migration reported that approximately 13% of urban migrants in Bangladesh have been displaced due to environmental factors (IOM, 2023). Additionally, the informal labor market in cities attracts seasonal workers, many of whom engage in low-wage occupations such as street vending, rickshaw pulling, and day labor (Khan et al., 2021).

1.2 Floating Population In Dhaka

In Dhaka, members of the floating population are engaged in diverse informal economic activities and contribute significantly to the city's economy while also easing national unemployment pressures (Bishwas, 1995). Despite their contributions, their low income and lack of access to essential services compel them to live in precarious and inhumane conditions, thereby perpetuating cycles of poverty and vulnerability. Their marginal status often places them in conflict with municipal authorities, as their presence is associated with issues such as footpath encroachment, traffic disruption, environmental degradation, and unsanitary living conditions (Rahman et al., 1994). Nevertheless, research highlights the resilience and resourcefulness of Dhaka's floating population. Studies indicate that there has been little improvement in their living conditions over the decades. For instance, observed stagnant income levels since the 1990s and continued reliance on precarious, street-based livelihoods (Begum et al., 2023). Similarly, a study published in the International Journal of Advance Research, Ideas and Innovations in Technology emphasized their limited access to basic necessities such as food, water, and sanitation, highlighting the urgent need for targeted interventions to improve their quality of life (Ijariit, 2017). Also, underscores the broader socio-economic challenges faced by internally displaced populations, including Dhaka's floating population, and calls for the development of inclusive social safety nets and robust policy measures (World Bank,

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10.26480/svs.01.2025.53.58

2018). Migration drivers among this group are diverse. While economic necessity remains the predominant factor, other causes include natural disasters, forced evictions, and social displacement (Islam, 1996). Initiatives aimed at supporting the floating population, such as microfinance programs, have produced mixed outcomes. While microfinance may provide temporary financial relief, its effectiveness in addressing systemic challenges—such as housing insecurity, unstable employment, and social exclusion remains limited (Khatun, 2009).

1.3 Objectives Of The Study

- To identify the suitable factors that attract floating people and encourage them to remain in a specific area
- To analyze the economic conditions of rootless people in three different areas of Dhaka South City Corporation

2. METHODOLOGY

2.1 Selection of the Study Area

This study employed a concurrent mixed-methods approach, combining quantitative surveys with qualitative data collection through semi-structured interviews. The research focused on three major hotspots in Dhaka city: Kamalapur Railway Station (Motijheel Thana), Sadarghat Launch Terminal (Sutrapur Thana), and the Dhaka University area (Shahbagh Thana). These locations were selected based on their identification as key floating population zones, due to their concentration of informal economic activities, temporary shelter options, and social service access (Begum et al., 2022). A pilot study conducted prior to the main survey identified three types of floating individuals in Dhaka: those without any fixed place (e.g., addicts or mentally ill individuals), those who come for work and sleep wherever available, and those with a set sleeping spot. Due to difficulties in collecting reliable data from the first group, only the second and third groups were included in the final study.

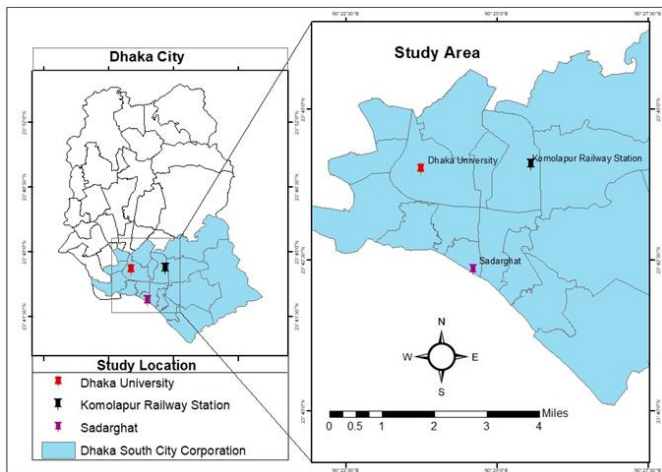


Figure 1: Map of Study Area

2.2 Sampling and Data Collection

Most studies on Dhaka's pavement dwellers implemented non-probabilistic sampling schemes primarily due to the complex nature of the availability of the pavement dwellers (Begum, 1997; Begum, 1999; Ahmed et al., 2011; Huda, 2014; Devereux et al., 2019; Tune et al., 2020). Following the Bangladesh Bureau of Statistics estimate of 9,439 floating individuals was used to determine a statistically valid sample size (BBS, 2022; Dhaka et al., 1977).

$$n = \frac{z^2 \cdot p(1-p)}{e^2}$$

At a 90% confidence level and a 10% margin of error, the minimum sample size was calculated to be 67. A total of 70 respondents were randomly selected for interviews—28 from Sadarghat, 22 from the Dhaka University area, and 20 from Kamalapur—based on their presence at the sites on the day of the survey. These areas were chosen for their high population density and the diverse socioeconomic characteristics of the floating population present.

3. RESULTS AND FINDINGS

3.1 Demographic conditions of the Respondents

The floating population in Dhaka is predominantly young, with most respondents aged 15–25 and declining representation in older groups.

Males constitute 84% and females 16%, reflecting the 2022 census reveals 76% male, 24% female. Women face heightened risks of abuse and often rely on family, communal housing, or NGOs for shelter, while informal job opportunities favor men.

Nearly half of the respondents were married, though 79% of those aged 15–25 were single. Widowed individuals appeared especially vulnerable due to limited economic and social support. Educational attainment was low overall, restricting access to formal employment, and even those with higher education faced economic instability.

3.2 Migration Pattern of the Floating Population

This study, based on 70 respondents from Kamalapur, Dhaka University, and Sadarghat, reveals that most floating migrants originated from the Dhaka division (23), followed by Barisal (14), particularly in Sadarghat due to waterway access. Moderate inflows came from Khulna, Chattogram, Rajshahi, and Rangpur, while Mymensingh and Sylhet had the fewest migrants (3 each). Economic hardship was the main driver, with over 32% citing unemployment, alongside landlessness, low wages, and seasonal job scarcity. Social causes, such as eviction or being born on the streets, were less common.

Notably, 62.9% of respondents migrated alone, suggesting that relocation to Dhaka often begins as an individual survival strategy. However, 32.9% migrated with family, indicating varied migration approaches based on personal and economic conditions.

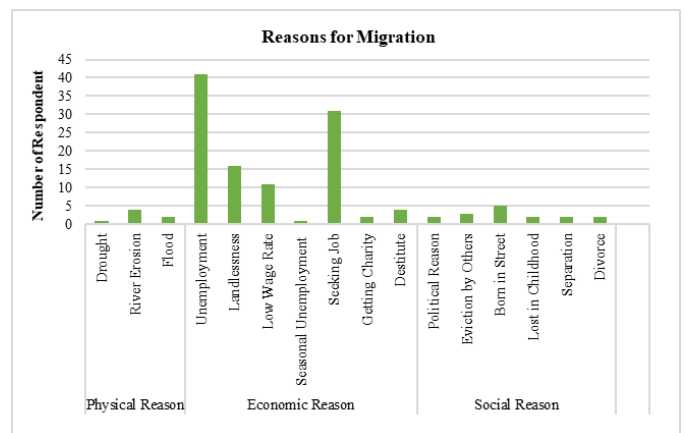


Figure 2: Reasons for Migration of floating population

3.3 Locational Factors Attracting the Floating Population

3.3.1 Availability of Vital Resources

3.3.1.1 Access to Drinking Water and Sanitation Facilities

Access to drinking water among the floating population varies by location. In Kamalapur, 80% rely on water sources at railway station platforms, indicating a heavy dependence on limited infrastructure. In Sadarghat, 59.09% obtain drinking water from paid sources such as hotels. In contrast, Dhaka University offers more diversified and accessible water sources, including campus facilities and the TSC, reflecting the benefits of public infrastructure.

Sanitation facilities also show significant variation. In Kamalapur and Sadarghat, 31% of respondents rely on paid public toilets, with a fee of 10 BDT per use—an expense many cannot afford. As a result, individuals, especially women, often avoid using these facilities due to both cost and limited accessibility. While religious institutions offer free toilets, social stigma restricts women's access. In Sadarghat, 24% use launch toilets, also paid, and a small number in Kamalapur (5%) use train toilets. Dhaka University provides more accessible and mostly free sanitation facilities, making it a preferred area for many in the floating population.

3.3.1.2 Convenience of Location Selection During Extreme Weather

The floating population commonly seeks shelter near key landmarks such as the launch terminal in Sadarghat, the railway station in Kamalapur, and the metro station in the Dhaka University area. Abandoned buildings and overpasses are also frequently used. Each area, however, shows unique preferences based on local resources. In Sadarghat, launches and religious institutions are popular shelter options. Near Dhaka University, some individuals find temporary refuge around DU halls, benefiting from the

area’s public infrastructure.

3.3.1.3 Access to Healthcare Facilities

Access to healthcare remains severely limited for the floating population, with 65% reporting no access to medical services. Barriers include financial constraints, distance, and social exclusion. In Sadarghat, most rely on Mitford Hospital, along with limited support from local providers and NGOs. In Kamalapur, healthcare access is even more restricted. Dhaka

Medical College (DMC) is the primary facility used, cited by 10 respondents, while other options like pharmacies or Mitford Hospital are

minimally represented.

3.4 Area-Specific Attractiveness For Floating Population: Physical Components

Table 1: Physical components contribute to the area-specific attractiveness for floating populations

Component	Level of Consideration	Dhaka University Area (% of Respondent)	Sadarghat Area(% of Respondent)	Kamalapur Area (%of Respondent)
Fanning / comparatively colder area	Least considered (1)	28.6%	0.0%	15.8%
	Moderately considered (2)	52.4%	25.9%	31.6%
	Highly considered (3)	19.09%	74.1%	52.6%
Cleanliness and tidiness of the streets	Least considered (1)	9.5%	7.1%	0.0%
	Moderately considered (2)	19%	35.7%	33.3%
	Highly considered (3)	71.4%	57.1%	29.5%
Dust-free air Quality	Least considered (1)	93.3%	37%	40%
	Moderately considered (2)	6.7%	44.4%	25%
	Highly considered (3)	0%	18.5%	35%
Access to clean water and sanitation facilities	Least considered (1)	57.1%	37%	0%
	Moderately considered (2)	23.8%	37%	35%
	Highly considered (3)	19%	26%	65%
Any Physical Structure (like a Bazar, park, or Mazar)	Least considered (1)	5%	21.1%	50%
	Moderately considered (2)	10%	10.5%	40%
	Highly considered (3)	0%	68.4%	10%

In the Dhaka University (DU) area, access to basic amenities such as water, sanitation, and open spaces contributes to its appeal. Although street cleanliness and air quality are moderate, the presence of students and visitors creates informal economic opportunities. Free but intermittent access to sanitation services limits its overall suitability for long-term settlement.

Kamalapur, as a major transport hub, offers reliable access to water and sanitation. Station platforms also provide partial shelter from adverse weather. Despite lower cleanliness levels, the constant flow of commuters creates economic opportunities, making it a practical location for the floating population.

Sadarghat emerges as the most attractive area due to its favorable microclimate and environmental conditions. Its riverside location ensures cooler temperatures and cleaner air. Combined with better access to water, sanitation, and marketplaces, Sadarghat provides a more supportive environment for floating communities.

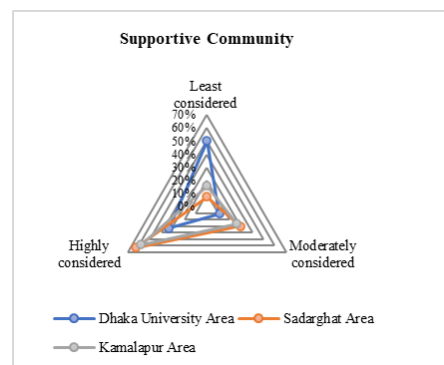
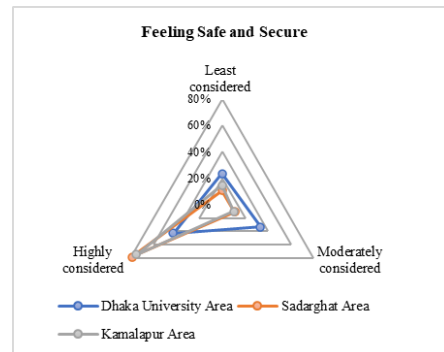
3.5 Area-Specific Attractiveness For Floating Population: Social Components

Social factors such as safety, community support, and food accessibility significantly influence the settlement choices of the floating population.

Kamalapur presents moderate levels of safety, including street lighting, police presence, and limited community oversight. While not the most secure, it offers a balanced environment suitable for individuals seeking general security.

Sadarghat ranks highest in all safety indicators—well-lit streets, strong police visibility, and active community watch—making it the most secure and socially supportive area. Its comprehensive access to food and economic opportunities further enhances its appeal.

In contrast, the Dhaka University area, despite strong lighting infrastructure, lacks adequate police presence and community monitoring. Lower food accessibility and limited community support reduce its attractiveness compared to other locations.



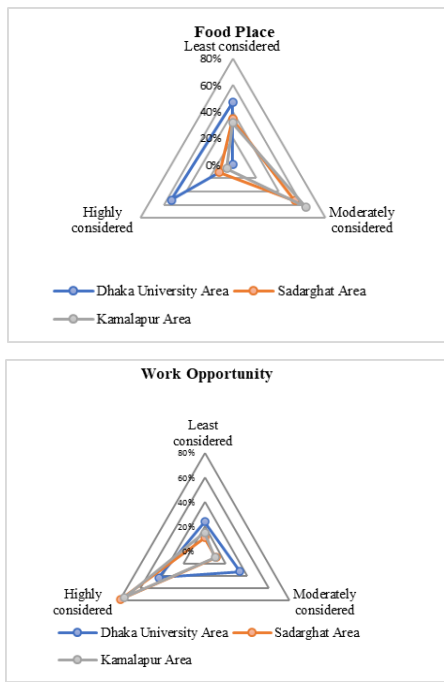


Figure 3: Social components contribute to the area-specific attractiveness for floating populations

3.6 Area-Specific Attractiveness For Floating Population: Economic Components

Economic considerations significantly influence the settlement patterns of the floating population in Dhaka. Variations in employment opportunities, proximity to workplaces, and access to affordable goods and services shape the relative attractiveness of specific urban areas.

Kamalapur provides moderate access to flexible, short-term employment, particularly night jobs associated with its function as a major transportation hub. However, the availability of low-cost food options is limited, reducing its overall economic viability for low-income transient populations.

In contrast, the Dhaka University area benefits from its proximity to a dense concentration of educational institutions and administrative offices, offering increased access to informal employment within walking distance. The area also provides relatively affordable food, which is essential for individuals with limited income. Although tourism-related employment is minimal, the combination of low living costs and proximity to work enhances the area's economic appeal.

Sadarghat, characterized by its function as a river port and transportation node, exhibits strong potential for night-time and short-term employment. The area supports a range of informal jobs linked to port operations, wholesale markets, and rickshaw services. Despite limited tourism-related employment, its dynamic commercial environment makes Sadarghat an attractive option for those seeking flexible, transit-oriented livelihoods.

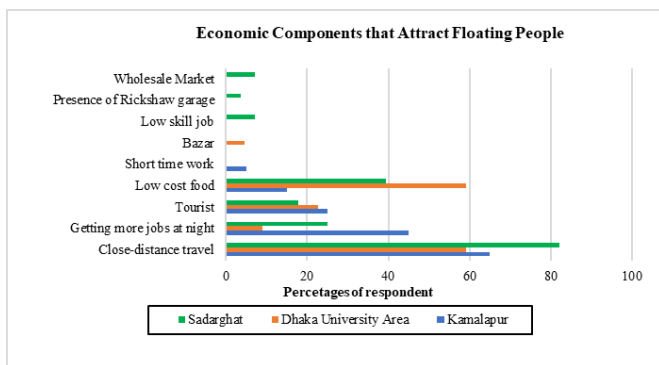


Figure 4: Economic components contribute to the area-specific attractiveness for floating populations

3.7 Economic Scenario Of Rootless People

3.7.1 Occupation before considered as floating population

Before joining the floating population, many individuals were primarily

engaged in physical labor or agriculture, with laboring and farming being the most common prior occupations.

Rickshaw/van pulling and small businesses were also significant, indicating diverse work backgrounds within the group. Other occupations, such as domestic work, masonry, watchman, excavation, and selling chocolates, were less frequently represented. Notably, a small number of respondents identified as students, suggesting that some individuals had an educational background prior to migration. Occupations like ticket blacker, shrimp business, and excavation were the least represented, indicating highly specialized roles that may not easily translate into Dhaka's urban labor market.

3.7.2 Current Occupations of Floating Respondents

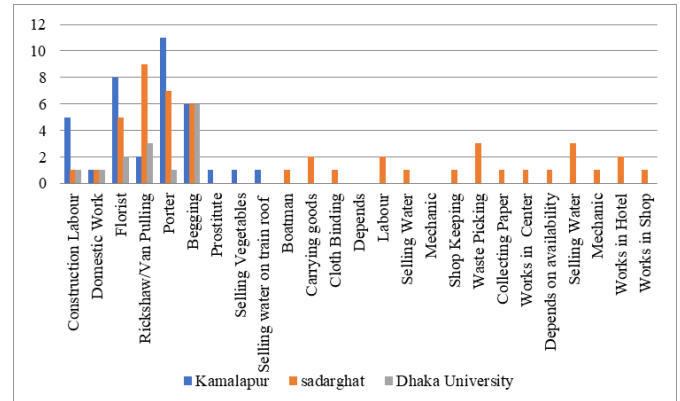


Figure 5: Current Occupations of Floating Population

Kamalapur, a major transportation hub, has a high concentration of porters and rickshaw/van pullers, reflecting demand for transportation services. Begging is also common, along with construction labor and waste picking, indicating unskilled labor opportunities. Roles like mechanic, shopkeeping, and selling goods are less frequent.

The Dhaka University Area shows a wider range of occupations, including mechanics and shopkeepers, serving students and visitors. Unlike Kamalapur, begging and porter work are less common. Other roles include florists and domestic workers, reflecting the area's diverse informal economy.

Sadarghat, a bustling waterfront, has a high number of rickshaw/van pullers and beggars, similar to Kamalapur. It also features boatmen, highlighting reliance on waterways. Waste picking is common, and selling goods (e.g., vegetables and water) is prevalent, driven by heavy commuter traffic. The area also supports other roles like hotel work and shop work.

3.8 Changes Of Income Range Of Floating Population

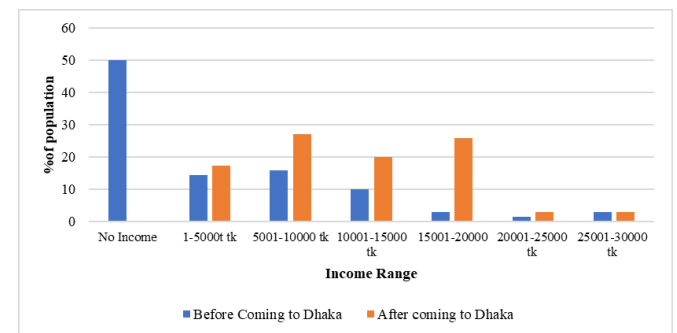


Figure 6: Comparative Scenario of Income Level

A majority of the floating population experienced increased income after moving to Dhaka, with a significant shift from "no income" to low- and middle-income groups in figure 6. Over 50% had no income before coming to Dhaka, but this dropped to nearly 0% after migration. About 20% entered the low-income bracket, and 15% moved into the middle-income (10,000-20,000) range, up from 5% before. A small percentage reached higher income levels (2%), indicating limited upward mobility. While Dhaka offers economic opportunities, challenges remain in achieving higher income levels, possibly due to competition, living costs, or job types. This data shows improved financial conditions for many but limited economic mobility for others. Most individuals have regular work, but some still rely on irregular income sources.

3.8.1 Measuring Income Inequality of Floating Population in Three Areas

Income inequality remains a persistent challenge, highlighting disparities in economic opportunities, wages, and access to resources. The Lorenz curve and the Gini coefficient are among the most commonly used measures of income inequality. The Gini coefficient is calculated as follows:

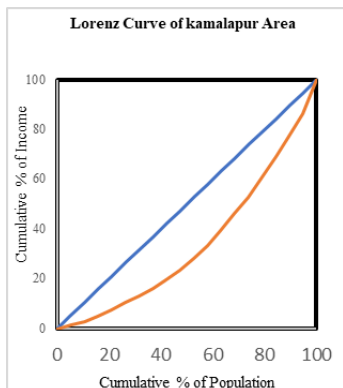
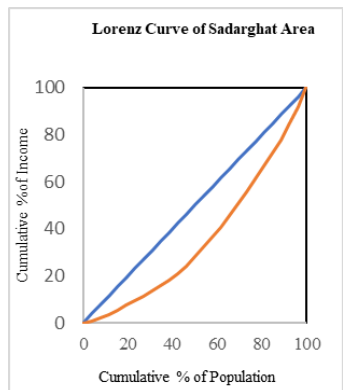
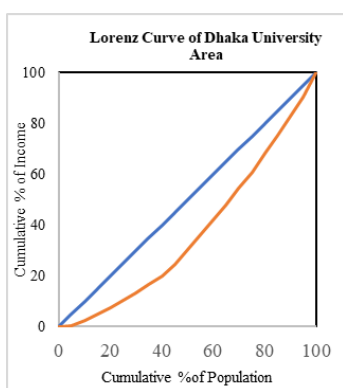
$$G = \frac{A}{A+B}$$

Where:

A = The area between the Lorenz curve and the line of perfect equality

B = The remaining area under the line of perfect equality

The Gini coefficient highlights significant variations in income inequality among the three study areas. Kamalapur shows the highest inequality (Gini index: 0.322458), with its Lorenz curve deviating sharply from the line of equality, reflecting economic disparity driven by its role as a transport and business hub. In contrast, the Dhaka University area has the lowest inequality (Gini index: 0.261275), with a Lorenz curve closest to the equality line, likely due to its academic setting and relatively homogenous socioeconomic activities. Sadarghat presents moderate inequality (Gini index: 0.286491), shaped by a mix of low-income laborers and small-scale traders.



4. CONCLUSION

An assessment of locational suitability for floating communities in Dhaka—across Sadarghat, Dhaka University, and Kamalapur—reveals distinct advantages in each area. Sadarghat, a commerce-driven zone, supports flexible, short-term employment tied to transportation and

seasonal labor. The Dhaka University area offers relative stability, affordable food, and access to essential services, appealing to those seeking consistent daytime work and better living conditions. Kamalapur, with its transport links and temporary shelters, serves night workers and those needing refuge during extreme weather. Despite their contributions to the urban economy, floating populations face systemic exclusion, lacking legal recognition and access to basic rights. Floating people are citizens of this country, but most of them do not even have the identity card of that citizenship. They cannot raise any demands, because they have no leader. Even they don't know any proper way to celebrate their joy.

“At Kamalapur Railway Station in Dhaka, boys aged 15 to 17 engage in a game they refer to as Hassan-Husyn. The objective of the game is simple: each player uses a blade, and the one who successfully makes a cut on the other is declared the winner.” Turning around, they proudly display the scabs on their backs as marks of previous rounds. The game of Hassan-Husyn might reflect the limited options for recreation available to them, and it might also embody the harsh realities faced by children living in urban poverty. Inclusive policies are essential to integrate them into the urban fabric and ensure dignity, rights, and opportunities.

REFERENCES

- Afrin, M., & Islam, M., 2023. Sustainable livelihood strategies among the floating population in Dhaka: A social and environmental analysis. *Sustainable Livelihood Studies*, 15(3), Pp. 145–167.
- Ahmed, R., Hossain, T., & Khan, M., 2021. Climate-Induced Migration and Urban Challenges in Bangladesh. *Environmental Research Journal*, 35(2), Pp. 112-130.
- Bangladesh Bureau of Statistics., 2022. Population and housing census 2022 - Preliminary report. BBS.
- Begum, A., 1997. Pavement dwellers in Dhaka: A socio-economic analysis. Dhaka University Press.
- Begum, A., & Hossain, K. Z., 2023. The untenable reality of the pavement dwellers of Dhaka: Evidence from three decades. *Journal of Urban Studies*, 34(2), Pp. 201–220.
- Bishwas, M., 1995. Dhaka Shahoror Vasoman Jonogostir Abstan Abong Doti Stane (Kamalapur Railway Station o Sadarghat Launch Terminal) Aie Jonogostir Artho-Samajic Abastan: Akti Bhaugolik Samikkha (Unpublished MSc thesis). Department of Geography, University of Dhaka, Dhaka.
- BRAC Research and Evaluation Division., 2018. Healthcare challenges of the floating population in Dhaka. BRAC.
- Cook, S., 2010. Floating lives: Vulnerability and resilience of mobile populations in Bangladesh. Routledge.
- International Journal of Advanced Research and Innovative Ideas in Education., 2017. Living conditions of floating families in Dhaka: An urgent call for intervention. *IJARIIIT*, 3(1), Pp. 79–85.
- International Organization for Migration (IOM), 2023. Bangladesh Migration Report. Geneva: IOM.
- Islam, N., 1996. Seasonal demography and socio-economic characteristics of the floating population in Dhaka. *Demography Journal*, 28(4), Pp. 102–119.
- Khan, M., & Alam, Z., 2021. Economic Livelihoods of Floating Populations: A Case Study of Dhaka. *Development Perspectives*, 22(3), Pp. 89-102.
- Khatun, S., 2009. The impact of microfinance on livelihoods of the floating population in Dhaka. *Bangladesh Microfinance Review*, 12(2), Pp. 56–73.
- Mariyam, T., & Ullah, M. M., 2015. Measure for measure: The essence of incorporating rating scale in assessing writing at tertiary level. ResearchGate. Retrieved from https://www.researchgate.net/publication/335977857_Measure_For_Measure_The_Essence_Of_Incorporating_Rating_Scale_In_Assessing_Writing_At_Tertiary_Level/citations

Rahman, A. A. (Ed) & Haider, R. (Ed.), 1994. Environment & development in Bangladesh (Vol. 1, in a 2-volume set). Intl Specialized Book Services.

Rahman, M., & Hossain, S., 2020. Urbanization, Economic Inequality, and Climate Displacement in Bangladesh: Challenges and Policy Responses. *Journal of Urban Development*, 15(3), Pp. 56-78.

Siddiqui, T., 2003. Informal labour markets and the floating population in Bangladesh: Issues of wage exploitation and job security. *Labour and Society*, 9(1), Pp. 45-60.

The World Bank, 2018. The social and economic challenges of internal displacement in Bangladesh. The World Bank.

The Daily Star., 2024. BBS, BMET data shows stark contrast. The Daily Star. Retrieved from <https://www.thedailystar.net/business/news/bbs-bmet-data-shows-stark-contrast-3481341>

The Business Standard., 2024. Population census: Collecting floating population data challenging, officials say. The Business Standard. Retrieved from <https://www.tbsnews.net/bangladesh/population-census-collecting-floating-population-data-challenging-officials-say-440494>

