

# Reconnecting the City to its Riverfront: A Case of Kolkata

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## Abstract

Kolkata, one of the major metropolitan cities in India, owns a great and heroic past, bearing its unique heritage and culture, owes its creation to its strategic location along the east bank of the river Hooghly, a distributary of the river Ganges. The banks of the river, once the lifeline of the people, remained bustling with different activities. They have become deserted areas, dotted with shabby old structures, disconnected with the city, and devoid of erstwhile scenic views. In the recent past, the riverfront has become the backyard of the city, derelict of any desired activity leading to escalating environmental and urban issues. The river-edge precincts and its neighbourhoods have died out in terms of their social association with the river. It is evident that the city has lost the social eminence of its riverfront because of the indifferent behaviour towards its revival. A discussion in response to the social issues of addressing the urban concern for finding a suitable solution or method to revive the lost values of an urban river has been elaborated within the paper. This research paper explored the principles of building a framework of developing tools for redefining the value of an urban riverfront through strengthening its cultural and social bonds with the city.

**Keywords:** Degrading Urban Landscape, Riverfront Development, Social Recognition, Cultural Exposure, Heritage Restoration

## Introduction

Rivers have had great significance in the evolution of many civilisations and their sustenance, becoming an essential element of urban life. They serve as a visual and cultural resource, a life system, and a corridor of endless tales. Along with time, they become a memorandum capturing several impressions along their banks throughout their life, and are a reference for the future of humankind. They are a ground for recreation, an entire biological ecosystem, and an endless resource. The *Atharva Veda* (II, 3.6) says: “May the water bring us well-being!” There are many such references in literature about the quality, use, sanctity, and symbolism of water (Eliade, 1958). In ancient Hindu mythology, water has been described as the foundation of the whole universe, a basis for life and the elixir for immortality. (Singh, 1994).

## Role of an Indian River

Though rivers are basic lifelines for cities in India, they have a bigger role to play as there is also a religious sanctity attached to them. Numerous beliefs and traditions become a part of the bond, whether tangible or intangible, that get enriched with rituals and daily life occurrences happening simultaneously on the river’s edge. “According to the common saying, the Ganga River is the identity of the cultural history of India’s civilisation since at least c. 2000 B.C., recording the history of Aryanisation. As a sacred entity, water is considered at once a purifier, a source of mystery, and a basic substance of life” (Singh, 1990). This importance given to Indian rivers has led to diverse forms of attachment to them in our lives. They take us through historical events, mythological references, and many traditional beliefs. They are socially considered to be ‘holy’, and accepted with faith, devotion, and worshipped. Indian cities evolved around them and nurtured various cultural meanings over time. These natural forms are believed to be embraced with the forms and processes of the cosmos, and mould the ecosystem in which they exist today. As stated by Prof. Rana P.B. Singh (1990), “The sacred bond between person and place is a reciprocal process illustrated in the realm of manifestation, visualisation (architecture and the symbolic meanings imposed upon) and the world of festivities (regulating and reawakening the spirit through rituals). The human relation with nature is realised primarily while narrating the place, understanding the place, and becoming part of the ‘spirit of place’ (genius loci)”. Intangible bonds and emotional attachments pop up to define the spaces along a river, and activities are shaped in a respective manner, to stage a drama of life. People, in the form of the players of the ecosystem, construct societal values for themselves, and act within their own scripted role, giving birth to the cultural context of a place. ‘The symbolic expression of place is the set of symbols that gives the people a cultural orientation in space and time’ (Singh, 2009).

Alongside shaping the cultural dimension of a place, Indian rivers are vital resources with enormous potential for society with social and economic value in daily life. They become the central focus of urban form, especially for the communities living by a river. The bond becomes an emotional attachment for the city as a source of happiness, a resource for recreation, a medium to

serve as the ‘third place’ for the people, alongside a platform for revenue. All components involved within this synergy participate as entities of a single biome, a system of life that exists along with the natural flow. Their various roles function in a rhythmic harmony, where we see a priest purify himself with his ‘holy’ bath in the river water, the elderly stand submerged for ‘Surya-namaskar’ in the early mornings, the kids get a medium for their play, a dhobi washes clothes to earn a livelihood, and fishermen wander in for their daily catch. Ferries ply across the two sides carrying numerous passengers travelling for different purposes. Daily activities to annual performances and further lifetime accomplishments add to the identity of the place. Such public interaction happens in different ways along the river’s stretch, depending on the cosmic atmosphere that surrounds the place.

Varied patterns of programming are constructed, shaping the local lifestyle and its needs. The banks are further determined for extracting resources for desired needs from the river. Despite their importance, the cities have sometimes come into conflict with the urban rivers in an undesired manner. Their existing potential is sometimes over-exploited and even in some cases under-utilised compared to the spaces in the city. However, these places always serve the urban form in a multitude of ways—may be as recreational open space, an attraction for tourists, a catalyst for trade, or an active booster for the local economy.

The North Kolkata precincts could be taken as an instance to observe the different layers of evolution of livelihood along with time and space. The Hooghly River passes by the urban edge, setting up a perfect example for exploring the correlation between the evolution of human society and its bond with the river. The riverfront here had been the epicentre of urban growth, ultimately resulting in a metropolis which grew from this very specific river-edge, carrying with it a handful of storylines associated with its growth, especially in the stretch from the Circular Canal till the Burrabazaar region. This urban edge possesses multiple expressions of defining a ‘place’, a mutual platform for different perceptions and activities.

## Historic Background and Context

History records the pattern of growth of a civilisation during the last few centuries along the Hooghly River from a few hamlets to one of the most populous cities in the world. The city started to expand from the three villages of Sutanuti, Kalikata and Govindopore. With the arrival of the Europeans, Calcutta began a period of growth that would transform it into one of India’s greatest cities and second only to London among the most important cities of the British Empire. “When Europeans sailed up the Hooghly for the first time in the early sixteenth century, they found a diverse population of ethnicities and faiths living along its banks” (Ivermee, 2017). Job Charnock, an agent of the East India Company, after several conflicting delegations and challenging confrontations with the then Mughal governor of Bengal, Shaishta Khan, had carefully selected the land near the village of Sutanuti to settle and expand trade. While Govindopore lies towards the south, where the British landed to build their superpower capital centering around Fort William, the major part of the urban growth comprising the native population took place within the northern grounds.

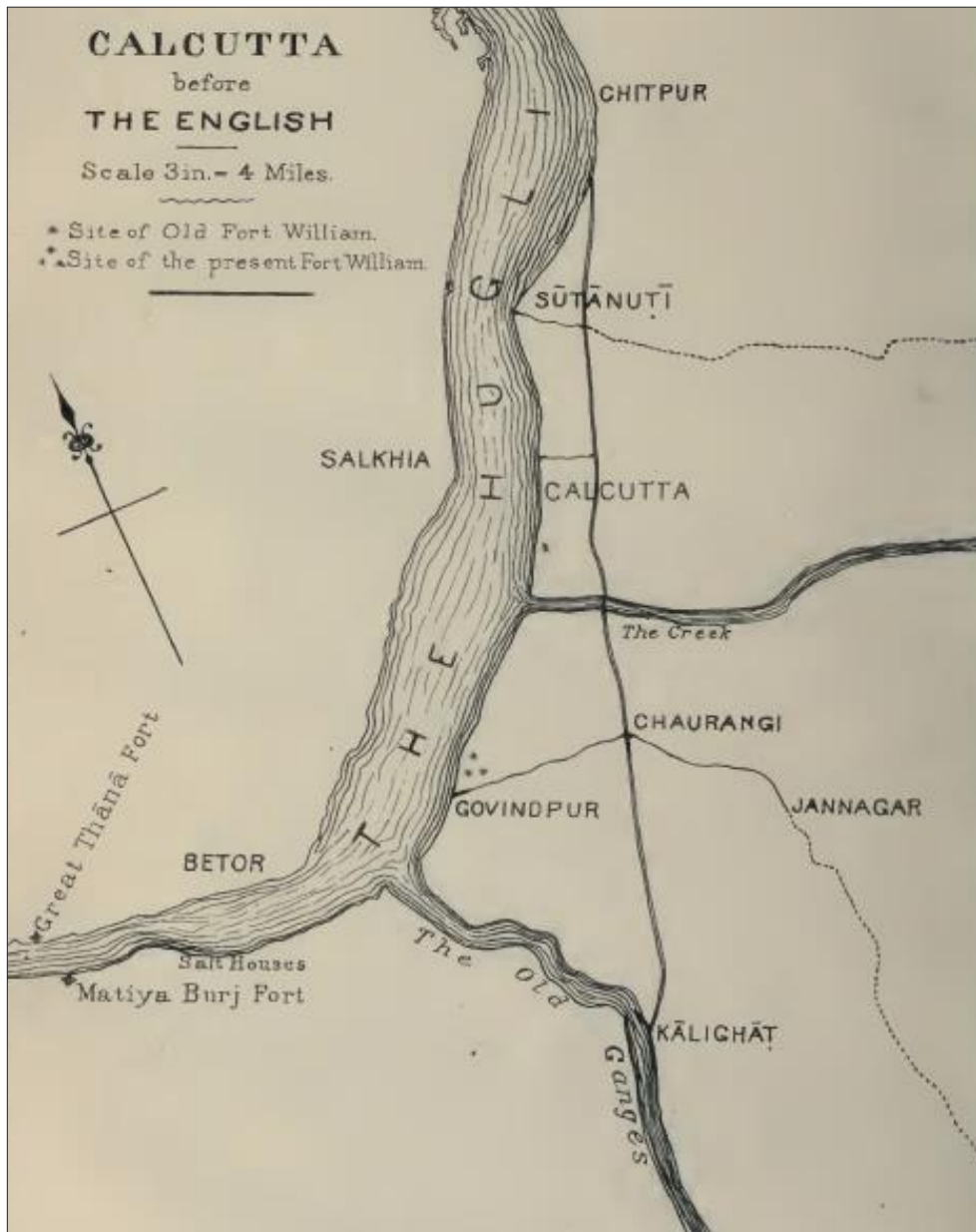
Figure 1: Hooghly River Running by the North Kolkata Region



Source: Google Earth map sourced on 20.08.2020

The dense morphology of north Kolkata relates back to the times when the city was emerging as a trading capital and an administrative power for the country. People from all over the state and beyond flocked within these areas in hope of a better economic opportunity. Rapid urban growth followed as a result. The British government imposed racist policies within the planning framework of the growing urban centre and the town was divided into three divisions—the black town (north Kolkata), the white town (south Kolkata) and the central business district area (Dalhousie and Chowringhee region).

Figure 2: Old Map Showing the Calcutta Region in 1680 before the British Arrived



Note: There were lot of creeks along the river where the settlements were mainly found. It proves how waterways played a major role of mode of transport. The map also shows the road linking Chitpur to Kalighat formed a major axis for the later urban growth of Kolkata.

Source: puronokolkata.com



## Identity of North Kolkata Region

The native population was pushed towards north Kolkata or the Black Town. The gradual rise in trade and commerce of the city eventually showed a rise in the population index which also showed a similar pattern in the density of the growing urban fabric in an organic pattern. Flocks of migrants began settling in this region. It followed an uncontrolled densification of the neighbourhood without the provision of proper civic facilities. The streets were narrow and dingy, the shops and warehouses mean looking. The lower parts of the houses containing the bazaars, and the upper, the dwelling-houses, crowded with a heterogeneous population; many were half naked, while others were bedizened in tawdry and fantastic garments. Discordant noises of all sorts, and most offensive smells completed the repulsive character of this portion of Calcutta.

**Figure 3: A Bewildering Mass of Billboards at the Corner of Harrison Street (Burrabazaar) and Strand Road**



Source: Penn Libraries, University of Pennsylvania. Photo taken by Clyde Waddell most likely between 1945-1946.

## Planning Framework

Though trade was the most important concern for the British Raj, the uncontrolled littering of the cityscape did not make for good scenery for the English residents. It compelled them to develop a planning framework for the township and establish a municipal body for basic services to the native people

'While E.P. Richards was drawing upon more concrete examples of town planning schemes from the Western world, Patrick Geddes, a Scottish sociologist and town planner, who produced several reports on Indian towns, believed that town planning was actually 'folk planning'. He (Geddes) believed that the plans for a future could only be drawn after unravelling the dominant social pattern of a community. To tackle the decay of urban settlements, Geddes invented a method that he called 'conservative surgery', which proposed minimum demolition and disruption to achieve maximum improvement in the city' (Chakravarty, 2019). The urban blocks comprising

inclusive neighbourhoods evolved in an organic pattern. Wide roads meeting at right angles were developed to demarcate the irregular grid pattern urban blocks. It solved the purpose of better policing, easy layout of services and keep control over the native population.

#### Figure 4: Calcutta in 1792



*Note: The concentration around the Old Fort, the Great Tank and Writer's Building is dense while the town is spreading. In the South, the new Fort William, the Maidan and the new English residential locality of Chowringhee have appeared.*

Source: Map taken from Census of India 1951

The wide streets also served as busy commercial thoroughfares, thus increasing business and commercial activities within the city. Commercial veins proliferated within the native areas. Home-based industries emerged and a rise in mixed-use typologies came into the picture. The steep rise in the influence of trade generated a high demand for infrastructure by the riverside. The surrounding precincts emerged as a central focal point of economic significance for the urban form. The river's trade-oriented functionality gave rise to an expected commercial frontage on the river banks, thus, identified itself as a valuable urban edge and became the most bustling part of the city.

### **Development of the Riverline Cityscape**

The Hooghly River served as the basin for connecting people and goods to different parts of the country and the world, as well, and thus gave rise to an urban centre which was aspiring to be the national economic and administrative capital. "Following the upheavals of the eighteenth century, it is suggested, Bengal entered a period of relative stability and peace under British colonial rule; the East India Company's monopoly on trade between India and Britain was lifted and replaced by free trade, as a result of which Calcutta was integrated into global networks of commercial exchange" (Ivermee, 2017).

The cityscape evolved from these activities, leading to the colonial built-up edge, with docking ports and ghat structures by the river banks. The Port Trust initiated large-scale infrastructural development in the 1870s. The exponential rise in trade between the 1850s and 1880s, trade in jute, cotton and tea led to a demand in more storage space within the port areas of Calcutta. The city was also the main centre for imports of cotton piece goods which were distributed throughout the hinterland comprising the provinces of Assam, Bengal, parts of northern India and central India. A tea warehouse on Strand Bank Road was constructed in the 1870s, to accommodate this increased volume of trade. Other warehouses were soon proposed along with need. "The trading activities at the port kept increasing, especially during World War I and its aftermath. The need for warehouse space was acutely felt in these years. More jetties and warehouses were ordered, and the port commissioners continuously put pressure on the government for adequate funds. In 1895, the average daily imported goods weighed around 1000 tons of which 300 tons were stored at the warehouses, the rest being carted away to other parts. In times of pressure, this amount doubled. In fact, a decade later, in 1906, the Secretary of the Bengal Chamber of Commerce mentioned that due to the increase of trade there was hardly any space at the jetties for the imported goods that were coming in; new jetties and a modern crane system were being constructed at the port but those were not enough; new warehouses were needed" (Sengupta, 2017). Responding to the need, a new dockyard at Garden Reach was constructed to reduce the pressure over the existing ones.



A proper channel of transport facilities to move goods to and from the dock area was another challenging development that occurred by the riverfront. The railways played a crucial role in connecting Calcutta with other parts of the province and country. Calcutta was served by the East India Railway, the Bengal-Nagpur Railways, and the Eastern Bengal Railways. The development of the railways was crucial in facilitating the activities of the port. Major items like rice, coal and jute were transported to other parts of the subcontinent from the port via the railways. But in the immediate vicinity of the port proper roads and carriers were not suitable to handle the large bulk of cargo. For this, the Port Trust started constructing the Strand Road and the Bank as well as a tramway. The development of the tramways was directly linked to the massive increase in the net cargo handling in the port. It solved the problems created by the gradual extension of port activities by establishing crucial links between the docks and the city, and in turn with the hinterland. A bridge was built above the Circular Canal to connect the tramways to the Chitpore railyard, which opened the movement of cargo and goods to the rest of the country through the Eastern Bengal Railways.

### Hooghly River as a Boon for the City

*"Commerce plays an important role in modern history. It is one half of politics, for in the first place the importance of a nation greatly depends on commerce. A desire to expand commerce, rather than a merely scientific curiosity, has been the mainspring of adventures in quest of new lands" (Deb, 1905).*

As stated above, the Hooghly River, a tributary of the holy river Ganga, played an eminent role for the growth of the metropolis of Calcutta. The geostrategic location of the urban centre by the side of the flowing river towards the Bay of Bengal, and thus, to international waters, gave the growing city the advantage of attracting foreign trade and commerce. It also played a vital role as an arterial link to other parts of the country, especially the Gangetic plains. The regional periphery from the delta of the Bay of Bengal attracted foreign communities to settle and reign over native society in this region. The British settled mostly by the marshy lands of the east bank of the river. The French settled more upstream on the west bank of the river at Chandernagore and Chinsurah areas, and the Danish in Serampore, while the Portuguese settled more upstream in the Bandel region. These settlements of the European powers reverberated with its growing importance as a regional hydrological network acting as a basic source for new opportunities to expand trade in the province of Bengal. It also attracted the local people of the region to migrate into growing urban centres for better employment and lifestyle opportunities.

Figure 5: Regional Map Showing European Settlements along the Hooghly River



Source: Map taken from "Genesis of the Metropolis" by Munsif (2020)

The river edges along the north Calcutta region faced a boom because of their ecological value, while the marshy lands of the Salt Lakes became the grounds for sewerage and drainage of the city, and the western urban edge facing the river became the most important urban profile, ultimately representing the face of the city. The area facing the river, comprising the bustling commercial centre of the city, stretching from the Dalhousie area and Burrabazaar markets till the railyards of Chitpore certainly, gave an image of a booming colonial city. Urban infrastructure planning and developmental goals followed. Parcels of religious and public buildings peeped out in front of the native residential colonies upon the river line, adding a flavour of intangible connections with humankind, along with value of commercial benefits. Thus the river-lining cityscape of colonial Calcutta gave the impression of being one of the most important cities in the world, second only to London.

### Cultural Identity

“The Hooghly was venerated as the Ganges’s original and most sacred route. Its alternative name—the Bhagirathi—evokes its divine origin and the earthly ruler responsible for its descent. From prehistoric times, the Hooghly attracted people for secular as well as sacred reasons” (Ivermee, 2017). Europeans arriving along the Hooghly were fascinated by the position that the river occupied in local life, and in particular its significance in Hindu religious practices and beliefs. Explanations of the growth of Calcutta usually focus on the forces of capitalism. The influence of trade also led the local sub-dominion powers to showcase their capabilities by building local infrastructure and structures within the city and along the riverfront. Zamindars and eminent personalities of the time took such initiatives with a desire to serve civil society. Several ghats built in different eras by different local heads still stand tall today. These places were among the first to connect society with local culture and traditions. Religious practices and ritual performances took place within these places and gave a new identity to the river’s edge. The ambient atmosphere developed within these spatial modules, which connected civic society intangibly with traditional beliefs. Eventually such activities acquired more and more of a significance connected to the sacredness of the water along the ghats. Mandirs and associated built forms sprawled around the surrounding areas. The social attachment of these elements with the city people gave a cultural dimension to the riverfront. These cultural ties have remained along with the deterioration of these structures and passed on from generation to generation. The riverfront still attracts the city people and binds them to itself with these intangible connections even today.

**Figure 6: Hooghly Riverfront during the Colonial Period**



*Note: The Hooghly River was lined with bathing ghats and temples, along with ports and dockyards with commercial built frontage comprising warehouses during the colonial period,*

*Source: Taken from monovisions.com*

### ***Issues of the Degrading Landscape***

In the present day, there is a discernible rhythmic flow of activities along the nodes of the north Kolkata riverfront. The atmosphere changes from one junction to another, along with the urban character and forms of livelihood. Diverse characteristics are reflected in the lifestyle and activities of different communities living next to each other. But the riverfront, which was once a thriving junction for trade, no longer reflects the exalted position it once held.. It is now ridden with dilapidated forms of heritage structures that have little connection or importance for the city people.

The river banks of Bagbazaar only reflect specific daily activities, with very little footfall. Empty spaces between active zones have created gaps that have given rise to unsocial activities and uncontrolled littering of the river edge. A narrow riverside road lined with temporary built stalls leading to the ferry jetty is a common sight within the place. The rest of the area has become a dumping ground by the river. The festive seasons bring life to the place with a heavy footfall but are of little concern to people vis-à-vis their ecological relevance.

**Figure 7: Degrading Landscape of the Hooghly Riverfront from Sovabazaar in the Present Context**



Source: Author, photo taken on 02/02/2021



The sloping ghats along the Sovabazaar to Ahiritola stretch, mainly developed for daily local activities, is the only riverside precinct available in north Kolkata that can become an open space in the city and a recreational destination for visitors even though there is no attraction at present to boost the area into a city level tourist destination spot. The neighbouring ghats of Nimalah get a high footfall of visitors from the city for their specific role of ritual activities performed after death with respect to their location beside the Nimalah crematorium.

**Figure 8: Intangible Bonds with the Hooghly River**



*Note: Intangible bonds with the Hooghly river persist but without any concern for the health of the river.*

*Source: Author, Photo taken on 29/01/2021*

Such concentric active zones within their own perimeter have created different expressions of the riverfront in secluded form. The riverfront is adopted by users for very specific uses and not looked upon from a holistic perspective. These node-based landmarks could be the reason for partial enlightenment of the potential of the river, and not as a wholesome entity.

The Burrabazaar precincts showcase total negligence towards the river edge. The large warehouse facilities which were directly connected to their prior location beside the river edge have no more purpose for being there. The pattern of movement of goods has changed. The Howrah Bridge has enhanced connectivity across the river to Howrah Railway Station. Porters carry over the goods to the Howrah Station now across the bridge. Trucks line up along the Strand Bank Road beside the warehouses for the transportation of goods and the waterways are no more used for movement of goods and commodities. Thus, the value of the river has diminished. The Hooghly River which once held prominence has become a mere background to the built forms. Scenic views of dilapidated structures and a garbage dumpyard have come into existence by the river over the years.



**Figure 9: Degraded Landscape Frontier Near the Warehouses of Burrabazaar**



*Source: Author, photo taken on 29/01/2021*

A fall in visitor attraction is also evident. The local ecosystem of commerce and economics is thus affected hugely and the standard of living of the inhabitants has been showing no positive symptoms within the analytics of the recent past. The landscape of the city riverfront has become a regular scene of “dilapidated ruined structures lining a river edge with polluted ghats and unattended garbage dumping grounds”. The river edge, which is supposed to be the face of the city, is no more what it used to be.

**Figure 10: Approach to the Riverfront through a Commercial Burrabazaar Node**



*Source: Author, photo taken on 29/01/2021*

## Need Analysis and Suggestions

Revival strategies of the riverside precincts into a newly transformed riverfront development need to be formulated. Such strategies could help to reconnect the landscape of the riverfront with the city socially and culturally better, and enhance the structure of livelihoods within the local associated built forms with new programmes. Eventually the precincts could thrive to become a city magnet, further boosting socio-economic development of the place, especially the neighbourhoods along the river edge.

Figure 11: Holistic Approach for the Development of the Hooghly Riverfront



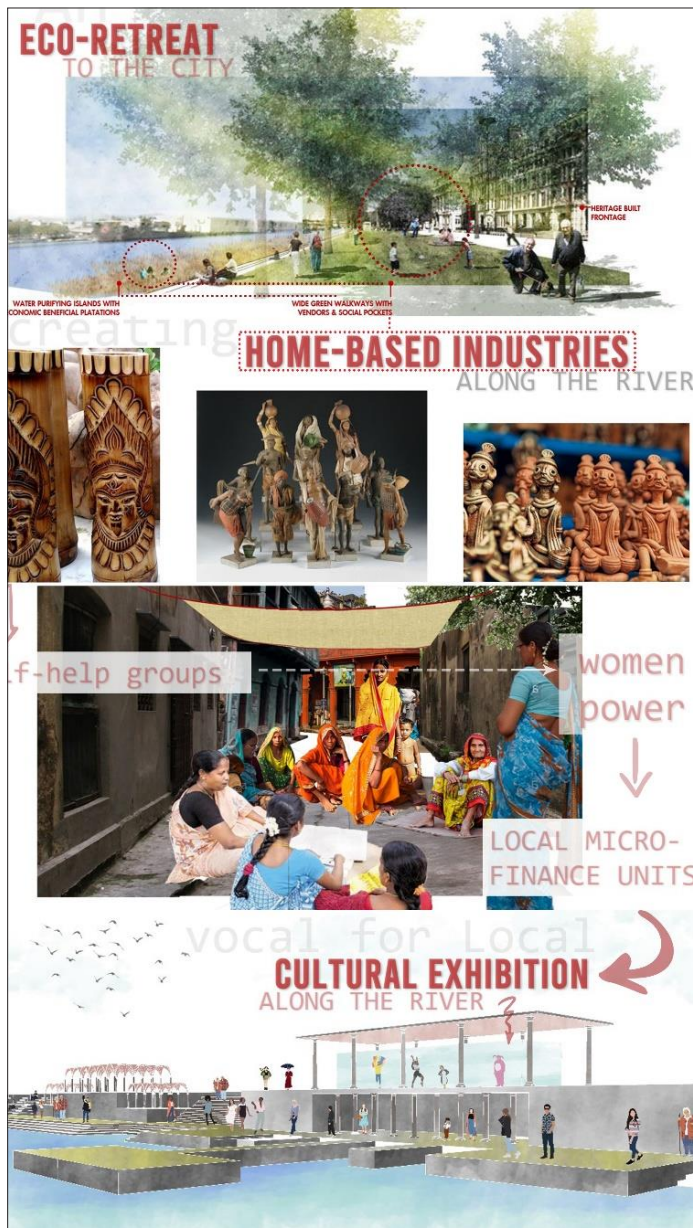
Source: Authors

## Preserving the Culture

Creating a magnificent atmosphere along the river for a city recreational space should also be kept in mind. The paradigm of 'live-work-play' would give a beneficial thrust to the various lanes of improvisation when looking at the riverfront, and unleashing the potential that it can express.

Hosagrahar (2017) dissects the concept for considering the cultural context as the basics for shaping a community. She says, "Culture is who we are, and what shapes our identity. Placing culture at the heart of development policies is the only way to ensure a human-centred, inclusive and equitable development." She also demonstrates how 'culture' has a crucial role to play that makes cities and human settlements inclusive, safe, resilient, and sustainable (SDG-11 of United Nations). "Urban areas rich in cultural heritage and with a vibrant creative sector are more attractive for businesses. Promoting inclusive and sustainable economic growth through employment in culture and creativity encourages decent work. The economies of some cities draw significantly on intangible heritage such as crafts, music, dance, visual arts, traditional cuisine and theatre that are often an integral aspect of historic urban areas" (Hosagrahar, 2017).

Figure 12: Strategies to Enhance Livelihood



Note: Strategies to Enhance the Structure of Livelihood Within the Local Associated Lifestyle with a New Programme to Enhance Social and Cultural Bonds

Source: Authors



Looking back at the importance of the Hooghly River that had once been a part of the glorious past of the city, the present state underestimates its heritage value and also its social association with the city people. A better outlook could be achieved through a social upliftment of the riverfront precincts through engaging them into regularised industry or commerce which is strongly culturally associated or becomes a promotional asset for the local cultural context; hence socially strengthening the intangible bonds of the river with the city will in turn impact in the revival of the health of such an urban river.

**Figure 13: Developing a Cultural Hub**



*Note: A Cultural Hub with Associated Local Cultural Activities by Conserving the Heritage Warehouse Structures by the River Edge will help in retrieving the socio-cultural bonds with the river.*

*Source: Authors*

Improvised spatial management along with conservation of the heritage features of the ghats and other related structures including the colonial built-forms that contribute to their value need to be highlighted through careful description of their history. Narration of the storyline of the place and its background would create an immense impression in the minds of viewers. Built forms become potential assets for screening such an activity. They eventually reflect the need for exploring potential methods of improving their condition, and rejuvenate the atmosphere with an efficient and synergetic ecosystem that results in creating beautiful places and a public realm. Along with heritage conservation methods, strategies for utilising the heritage value for tourist attraction would deliver a much stronger sense of urban rejuvenation of the place. The old

warehouses could be converted into museums, cultural workshops and exhibition centres which may be used to display the lost identity of the place.

Even the ghats could become a platform for newly introduced activities. Local associations and unions could be involved to organise such programmes, thus introducing the riverfront to the city with a new and fresh energy. This could also form a strategic way of attracting visitors and increasing the commercial activities of the region. Local neighbourhoods could benefit with the positive socio-economic upliftment.

### **Ecological Restoration**

The ecological value of the Hooghly River could be brought back to life through public engagement and its social awareness among the local people of the region. The Swachh Ganga - Swachh Kashi Initiative is a role model for public engagement in the process of cleaning an urban river and maintaining it. Awareness campaigns on the need to clean the river Ganga and save its ecosystem by ensuring free flow of water, have been already successfully carried out in other Indian cities like Varanasi, Haridwar, Allahabad and Patna.

**Figure 14: Local People Participating in the Maintenance of the Riverfront**



*Source: Author, photo taken on 02/02/2021*

A better public understanding of the means of ecological restoration and the necessity for it through public engagement and awareness programmes can become an effective tool to control polluting agents and regulate the health of the free-flowing river.



### **Engaging the Local Community**

Local communities could get engaged to extract their means of livelihood from the river and associate and exhibit their skills in the form of promoting their folk culture through new means within the riverfront precincts in a transformed public realm. Thus, the value of the Hooghly River can be enhanced and better connected with the ethos of the city people by portraying the local cultural context and heritage background which is recognisable. It will help in retaining its societal value for nearby communities in a more sustainable manner, thus getting the interest of citizens in ensuring a cleaner environment along the urban river through strengthened bonds with city life.

**Figure 15: Encouraging Local Association**



*Note: Local people could be encouraged to associate themselves with available ecological resources by the riverfront and protect it in favour of their daily means*

*Source: Authors*

### **Better Developmental Approach**

Development based on a node-based approach could further be adapted as a tool whereby people would be equally distributed along the riverfront. The major nodes that form the approach to the riverfront distinguish this fragmented character of development. These fragments of the stretch could then better respond to the present physical needs and the potential to deal with these needs from the adjacent neighbourhood, making the riverfront an economic resource platform and promotional ground for the locals. Communities could be exposed to the eco-friendly sustainable

industries where the adjacent neighbourhoods get an opportunity to extract their needs from the natural resources of the riverfront. Furthermore, cottage industries can be based upon the regional Bengali folk cultural handicrafts, such as clay idol making from Krishnanagar, baked earth or terracotta items from Bishnupur, and bamboo and cane artefacts from Cooch Behar. They would represent and help in promoting the local Bengali folk culture. These would help in the economic upgradation of the local livelihoods. As a basic resource ground for the locals the riverfront is expected to be maintained by them as well. This inclusive nature of inter-dependency of the locals with the riverfront would enhance the social integrity of the place and help to revive the social value of the river in the relevant nodes.

### ***A Breathing Space for the City***

The river also offers potential for being a recreational ground for the city. Spaces that serve this purpose in the present scenario are not well maintained or are utilising their utmost potential. Segregated ghats which form the major nodes of attraction and activities, give rise to ground for creation of unmonitored pockets along the river edge. These spaces attract unsocial behaviour or become solid waste disposal grounds, giving a negative impression of the place. Rather, a seamless corridor with varied activities might create a more interesting city space, with a better scope of management of the social issues, and create more space for adding value to the riverfront.

### **Potential for Future Development**

The northernmost fragment of the stretch comprising the Bagbazaar region could be developed as an eco-retreat corridor for the city. The natural embankment of the river edge can serve as a resource platform for selective wood-based handicrafts industries. The natural embankment can also act as a platform to extract silt from the river for making clay items. These could serve the potters' colony in the precincts as a means of livelihood.

**Figure 16: Developing Green Corridors**



*Note: Running Green Corridors to Act as a City Recreational Zone by the River Edges.*

*Source: Author, photo taken on 30/01/2021*

The Sovabazaar-Ahiritola region could become a city recreational space with multi-dimensional utility of the spaces along the landscape. The present form of unplanned ghats could be unified. Spatial configurations could be made, along with planned segregation of activities according to the zoning of the unified stretch within the development of these ghats, which would then help in better management and policing of the riverfront.

**Figure 17: Better Planning of River Ghats**



*Note: The development of the ghats could be better planned with associated activities by the riverfront and portraying local architectural elements.*

*Source: Author, photo taken on 30/01/2021*

Different platforms for various activities within a fusion of each overlapping with each other would enhance the vitality of the place to become a vibrant environment for pedestrian activities along with recreational grounds, thus making it a tourist magnet. These places could be adapted to foster a huge amount of visitor footfall. Different tales of act is also expected at different times of the day as each space could be developed for multi-dimensional use. The different spatial configurations could give space for carrying out daily activities including rituals, evening aarti performances, weekly crafts bazaar, exhibition ground for local small industries and folk handicrafts all if which will eventually get reflected in the economic status of the adjacent neighbourhoods. The city's heritage style depicted in the existing built character with the unique Bengali style of architectural elements would even promote the local cultural context.

The fragment of the stretch leading from Ahiritola to Nimtalah could be envisaged as a place for city people to interact with the Hooghly River. Water-oriented activities such as viewing decks, boating facilities, bathing facilities and water sports activities are proposed here, making it a vibrant and active zone during the festive season. This could also act as an extension of the activities on the ghats and merge with the built character towards the south. The activities in Nimtalah, a landmark of the city, being a major city crematorium ground, could be authentically retained.

The warehouses along the riverbanks of Burrabazaar area could be rejuvenated and adapted for better use. The present warehouse activities can be relocated within the adjacent urban blocks. These heritage warehouse built forms could be conserved and retrofitted with features that

express a city cultural hub, and be a venue for activities oriented to the research and promotion of Bengali culture. These heritage buildings could also house exhibition spaces, museums, cultural workshops and tutorial classes, cultural clubs, and theatre spaces. The re-adaptive use of these built forms could help them become a city magnet and nurture an appropriate cultural ethos in the surrounding areas. They would also serve to increase visitor footfall within the region. Broader pedestrian streets alongside the Strand Bank Road with large gathering spaces, performance areas, and open exhibition facilities would allow the cultural activities to unfold into extended public spaces, forming an open and permeable environment. The general public would also be visually exposed to the activities of the cultural hub. There would be spaces for open street performances and open galleries too. It would become a culturally determined city space with the heritage background of the riverfront.

**Figure 18: Exhibition Grounds in the River Promenade**



*Note: Development of Exhibition Grounds for Promoting Local Cottage Industries*

*Source: Authors*

## **The Local Neighbourhoods**

The local neighbourhoods could be encouraged to create new trade associations for promoting sustainable forms of agro-based industries and creating self-help groups for women, which would involve them in small-scale folk handicraft industries. Furthermore, exposure and promotion through community walks and dedicated theme streets, within a framework of a more attractive and commercially beneficial street network through the neighbourhoods would bring more interest within the whole region, to be explored by visitors. Local economic beneficiary strategies will open the economic potential of the area to outsiders.



**Figure 19: Visitor-Oriented Community Walks Promoting Local Cottage Industries**



*Source: Author, photo taken on 19/01/2021*

## Conclusion

The idea of revival strategies for improving the ecological health of an Indian river needs understanding of the existing ecosystem for a sustainable model of redevelopment. A connection between the urban form and the natural body could be established after determining the social engagement of the living communities, their traditional beliefs and associated bonds with the river. Other local influential factors such as capitalist ideologies of development through the past and present, need to be given prior consideration for determining the necessities of different stages of development required within the vicinity. The physical outlook and social recognition of the ecological body are the key features expressing urban concern for its health.

In the case of reconnecting the Hooghly River with Kolkata, the socio-cultural ties between the river and city could be used as a tool for creating an adaptive model to enhance the social integration of the local community with the river. The riverfront could become a place of attraction at local as well as at regional level that values its heritage through a better use and social recognition of the place. It could then be blended with the neighbouring functionalities. Hence, the river could get the prior importance it deserves, and be treated with better care and maintenance if the surrounding place could be revived and upgraded in the image of the city. Increase in the influx of visitors would eventually cause an uplift in the livelihoods of the locals who should be solely responsible for taking care of the river in their own interest. The social upgradation of the Hooghly riverfront in north Kolkata could be strengthened through a better connection between the river and the human settlements alongside it within a sustainable framework of livelihood and cultural background. The strategies discussed involve an exaggerated engagement of the local communities living by the river. Such public interventions are socially sensitive and induce equal interest between the local community and the administrative authorities. Proper awareness and education of the locals through various forms of public engagement programmes needs to be held along with insights of experts in the whole process. The local version of concerned problems along



with exchange of views in regard to a better solution for uplifting the local status will enhance the policy framework with more effective developmental strategies. Despite a controversial debate resulting in a discourse from the long-term vision, alternative urban design solutions and amendment of policy guidelines and bye-laws need to be adopted by administrative authorities. An integrated framework of institutions starting from the grass-roots level to the union level needs to be functional in uniformity. Their respective scope of actions needs to be put forward in an effective and sustainable administrative framework.

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## Conflict of Interest

Authors has no conflict of interest to declare.

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