Reviving Opportunities through Socio-Spatial Parameters for Community Interaction: An Assessment on Neighborhood Ponds of Old Dhaka

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Abstract:

Within urbanized areas, the importance of neighborhood ponds should be assessed and investigated with its socio-spatial parameters (access and linkage, sociability, uses and activities, comfort and image etc) since such water bodies act as retention basin during floods, reservoir for lean period and responsive socializing agent to measure community interaction which are generally been neglected by city government, threatened by developers but taken care by neighborhood people in Old Dhaka. Most of the inner city small neighborhoods ponds have been encroached and filled up upon demand on land as the pond were not integrated in the city planning. The main objective of this research is to assess the significance of such water bodies and revive the spatial relationship of neighborhood ponds with its nearby residents. Therefore a socio-environmental survey (quantitative and qualitative) is held on neglected and threatened small neighborhood ponds of Old Dhaka with direct observation, in-depth interviews of the residents to compare the environmental, ecological and social contexts and explore the opportunities. An integrated assessment for enhancing sustainability and creating opportunities through community participation has been suggested to rejuvenate the ponds with attention for wetland preservation and to integrate into community development programs or planning.

Keywords: Old Dhaka, Neighbourhood Ponds, Socio-Spatial Parameters, Community Interaction

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1. Introduction

Dhaka used to be referred as the “Venice of the East” for its water bodies, which were interconnected and formed a convenient network of communication. Over the last four hundred years of urban development, Dhaka has completely lost its image of ‘Venice of the East or the City of Channels’ as remarked by James Taylor (Dani, 1962) and presently stands as ‘City of concrete’. Studies have proven that more retention areas are needed since “the city has lost hundreds of hectares of wetland in last ten years” (Islam, 2009). Historically Dhaka’s urban life and living was interwoven with the system of rivers, canals, lakes and ponds scattered and crisscrossing the city (Mowla, 2008). However, in the frenzy of urbanization, Dhaka, in the last 30 years or so, has seen a drastic reduction of its water bodies (lakes, ponds and canals) as well as wetlands. It is evident that Dhaka’s citizens forgot about the existence of most of the inner-city waters. In such perspective restoration and conservation of small stagnant ponds are ecologically very important. They provide habitat, sanctuary and food for many species of fish and wildlife and are also a source of process water to a myriad of industries (Dinar et al. 1995). Urbanization of Dhaka during recent times has left a deep scar in the city’s environment. It needs some strategic decisions and quick actions to remain livable. Thus the study attempts to trace present settlement pattern around neighborhood water bodies in Old Dhaka and explore the socio-spatial features to ascertain an appropriate role of such water bodies (ponds, khals, lakes, rivers etc.) in the rejuvenation and integration of the city fabric.

2. Objectives and Methodology

Dhaka has ponds of different sizes spread within its municipal corporation boundary (under institutions like university, Govt. offices, under mosques & temple, under various garden and within neighborhood level) which are used as multiple resources and have great ecological importance in urban environment – from microclimate control to biodiversity. But most of these inner city small neighborhoods ponds are mainly neglected, have been encroached and filled up upon demand on land as the pond were not integrated in the city planning. These small ponds and have undergone human-derived changes that have increased threat of pollution. So therefore the objectives of this study are:
1. To investigate socio-spatial configuration (access & linkage, sociability, uses & activities, comfort & image etc) for communal interface,

2. To provide an integrated transformational basis within present situation to revive and conserve degraded small neighborhood ponds for liveable Dhaka.

![Figure 01 (a): Ponds are locked into densely populated area (Source: The Daily Star, April 09, 2008/Dhaka Tribune, May 23, 2013/Authors)

![Figure 01 (b): Land grabbers continue to fill the pond at Amaligol in Lalbagh in old town of Dhaka (Source: New Age.May 16, 2014/ Dhaka Tribune, May 23, 2017)]

To assess the above objectives, we identified neglected and threatened small stagnant neighborhood ponds of Old Dhaka, observed the spatial relationship of urban neighborhood ponds with its nearby residents and explore the opportunities along with its socio-spatial context for sustainable ecological and socioeconomic development on a neighborhood/community. A socio-environmental survey (quantitative & qualitative) is held on DIT Pukur Paar, Dhupkhola Pushkuni Paar, Sikkatuli Pocha Pukur, Bangshal Pond & Gol Talab of Old Dhaka with direct observation, in-depth interviews of the residents to compare the environmental, ecological and social contexts of the five ponds.

3. Theoretical background

3.1 Definition and Importance of Neighbourhood Pond

A Pond is generally described as a water body of a smaller size, commonly dug (man- made) or developing it from its natural origin (Ray & Majumdar, 2004). Big ponds are called “Dighi” in our country. In the
present study the term neighborhood pond has been used as smaller water body in the urban and peri-urban area. The term pond refers to a relatively shallow body of water, contained in an earthen basin, artificial or natural and can vary in surface area from about one meter squared to a few hectares (Journal of Wetlands Ecology, 2009). The role of the ponds in urban milieu is multifaceted such as social, ecological and economical importance. The major use in our contextual setting is no doubt bathing, cleaning and other requirements. The major productive activity related to these ponds is fish cultivation. Environmentally these small stagnant ponds play role as controllers of microclimate, biodiversity and receptors for rainwater harvesting. In neighborhood scale, these stagnant ponds are also act as a centre of local social and cultural activities. Finally, these ponds bodies act as a source of water for fire fighting in the crowded and over-expanding urban areas.

3.2 Contemporary scenario of ponds of Dhaka

In the past, water bodies were the main transport corridors, streets being secondary and have historically played an important role in the spatial development, life and liveability of Dhaka. There were flights of steps, locally known as Ghats were community spaces as well and provided a hydraulic character to the settlements in the area (Mowla, 2010). These were major community spaces where the daily activities taking place such as bathing, washing or religious or commercial activities. Because of unplanned urban development, Dhaka has become an overpopulated metropolis where wetlands reclaimed and converted into building construction sites. Encroachment upon our water bodies and unscrupulously polluting those canals, creeks and rivers in and around the Dhaka are destroying our ecological balance and making Dhaka less livable and enjoyable as a city. Several studies have documented to determine the loss of wetland in Dhaka over the period 1989-1999 (annual rate of loss of 1.23%) and 1999-2003 (annual rate of loss 5.67%). Study showed that Dhaka is still left with 19.3% of wetland (The Daily Star web edition, 2006). From another study it is found that Dhaka possess 101.12 acres of pond which is served 0.024 acres per 1000 people [table 01]. According to the DAP, at least 21 percent area of the city must be protected as water bodies where no one should be allowed to develop any form of infrastructure. Dhaka is only left with around 19 percent of its original wetlands, which is an alarming figure.
Old Dhaka for an instance is a severely crowded area with compact urban form. Yet the existing small ponds in those areas create an atmosphere to bring serenity into people's lives. Streets and Walkways by the water generate spaces for social gatherings (Bashneen & Karim, 2016). Most of the ponds in new Dhaka are under institution and mosques which have a lower rate of local people accessibility and usability. Residents taking baths, children enjoying jumping and dipping – in a neighborhood pond like Bangshal, Gol Talab ponds etc. and surrounding trees act as reminiscent of rural tranquility among the busy urban life. Ponds also act as a social platform such as fishing festival occurred every year at Nawab Bari Pukur also known as Gol Talab (Figure 01a). Most of the ponds are also in death throes due to negligence of the authorities concerned. Although, according to the Field, Open Space, Park and Natural Water Body Protection Act 2000, filling up of any water body including pond is illegal, it's going on unabated. The negligence of government has been evident through filling the 150 years old neighborhood pond Pushpa Saha Pond with soil (Figure 01b). The Daily Star found 63 Ponds in the maps of undivided Dhaka City Corporation (DCC) in its 28 wards out of 90. But many of the water bodies were filled up before the period and also even after the survey (Alam, H. 2017).

Table 01: Distribution of open spaces in Dhaka City (Bhadra & Shamim, 2001, people report on Bangladesh environment 2002-2003, MoEF-US)
3.3 Socio-Spatial Parameters and Community Interaction

In evaluating thousands of public spaces whether in city scale or neighborhood scale around the world, PPS (Project for Public Spaces) has found that to be successful and interactive they generally share the following four qualities: they are accessible; people are engaged in activities there; the space is comfortable and has a good image; and finally, it is a sociable place: one where people meet each other and take people when they come to visit. PPS developed The Diagram below portray the socio-spatial parameters as a tool to enhance the community interaction around the neighborhood pond. According to PPS, 2000 access & linkages, uses & activities, sociability, and comfort & image are
the four main elements of public space that make the public space (urban green/blue/grey spaces etc) interactive and joyful for people [Source: PPS, 2000, how to turn a place around]. In this paper socio-spatial parameters contain the above mentioned parameters to revive the opportunities along neighborhood ponds of Old Dhaka.

Figure 03: Key qualities of successful public spaces Source: PPS, 2000 (ChitrakarR.2015)

To evaluate the socio-spatial parameters of each of the selected neighbourhood ponds, each pond was assessed according to the established criteria of PPS’s matrix consist of the following (Buckman S.2016):

Access & linkage: the accessibility of a place by its connection to its surroundings, both visual and physical. Community interaction can be enhanced if the public space which is the neighborhood pond in this paper is easy to get to and get through; it is visible both from a distance and up close.

Comfort & image: whether a space is comfortable and has a good image. Comfort includes safety, cleanliness and availability of place to pause or to it etc.

Uses & activities: activities are the basic for any successful and interactive places. Activities attract people to visit the place and continue to return to the space again and again, are also makes a place special and unique.

Sociability: when people see friends, meet and greet their neighbors, and feel comfortable interacting with them, tend to feel a stronger sense of place or attachment to their community.
Figure 04: Activities in and around the ponds

Old Dhaka for example, is an extremely crowded area with compact urban form. Yet the small ponds create an atmosphere which brings calmness into people’s lives. Streets and Walkways by the water create spaces for social gatherings. Public perception of an urban waterway is also highly dependent of its size, where width shows a relevant role, affecting notions such as scale, distance, visual contact, depth, reflection, attractivity, enclosure, among others (Cano, 1985; Moughtin, 1999). Wilkinson (2007) defined three dimensions of social cohesion: the (psychological) sense of community, the attraction and the neighboring. The sense of community refers to a strong attachment that people may experience towards each other (Davidson and Cotter, 1993, quoted by Wilkinson, 2007). It conveys the notion of belonging to a community, the existence of shared values, a common identity (Jenson, 1998), and the involvement in the community organization and in local actions. Neighboring is the sum of actions residents may perform to build a social network within the neighborhood and to support one another, either psychologically or materially (Forrest & Kearns, 2000; Helly et al., 2003; Van Marissing et al., 2005). Gehl (1987) defined two main types of social interactions: active and passive interactions. A contact is considered to be active when people have a conversation (focused interactions) or greet each other (unfocused interactions) (Giddens & Duneier, 2000, quoted by Bin Kang, 2006). A passive contact is considered to be a contact without any talk or greeting; it is rather a physical presence: being among people, looking at or just seeing them, listening to or hearing them (Huang, 2006).

4. Case studies

Five small neighborhood ponds [Figure 04] have been selected (0.77 – 2.04 acres) according to their ownership patterns, access & linkage with the neighborhood, sociability, uses & activities around the ponds and ecological perspectives. These Five ponds are spread over different wards
of Old Dhaka area. They are:

Pond 01: DIT Pukur Paar
Pond 02: Dhupkhola Pushkuni Paar
Pond 03: Sikkatuli Pocha Pukur
Pond 04: Bangshal Pond
Pond 05: Gol Talab (figure 05)

At all the ponds, the number of users for various uses was counted between 8:00 am to 5:00 pm for one day. The maximum duration of each observation was fixed at 15 minutes. A number of users were surveyed through prepared questionnaires at each pond. Besides, other relevant data about the ponds were collected from the users, from the local people, from the principal or the managing organization, if any.

Figure 05: Map showing five selected ponds of Old Dhaka (Source: GIS Map, 2006)

The study revealed the following important information. Landscape features and the surrounding land use within 30m of the pond were recorded along with the degree of visibility, proximity to housing,
footpaths and the amount of public access. A sketch of each pond of old Dhaka was made in order to get a good insight of it and a first impression on the way the space is used through photographs which include the shaping of the space; accessibility to the ponds, spaces for communal interaction (circulation space: the Street & non circulation space: the Pond), tree cover (trees, shrubs, herbaceous plants, grass etc.); the presence of facilities and equipment related to specific activities (ghats, fishing deck, walkways, benches, food stalls, physical barrier etc.); the presence of physical traces of use, evidences of activities (active hours) in the place like negative to pond side, leftovers, erosions; and the state of positiveness (maintenance of the space, lightings, comfort etc.). [Figure 05]

Figure 06: Surrounding areas and spatial organization of five ponds of Old Dhaka

5. Findings and discussion

Influence of circulation (streets) versus non-circulation spaces (pond space) on communal interactions: Access & Linkage

It is evident from above that the surrounding areas and spatial organizations of old Dhaka ponds are mostly organic. All the four ponds are accessed by a continuous street and linked by several narrow lanes except Sikkatuli Pocha Pukur. Among these five ponds Bangshal pond is easily accessible by local users as well as by other neighborhoods. The
aperture of Sikkatuli pond is larger than the others as the main connecting street is parallel to the pond whereas one has to access to the Dhupkhola pond through a linear axis (Fig. 07).

**Figure 07:** Access and Linkage of Pond 03 (Sikkatuli Pukur) and Pond 02 (Dhupkhola Pond)

The frequency of focused activities mostly conversations was relatively high in case of Bangshal pond & Gol Talab but sometimes lower than non circulation spaces (Sikkatuli pond & Dhupkhola pond), particularly the spaces containing facilities, as described previously. Focused activities performed in non-circulation spaces (people met inside the pond) appeared to be sometimes very short and non-spontaneous than in circulation spaces (people met in surround streets); they were mostly long and spontaneous. 80% of communal activities occurred near the entry point of the ponds. Indeed, people used the circulation spaces for their primary function, i.e. to walk through so that they did not stay in the area. In Dhupkhola pond, for example, nobody was observed using the path as a meeting point but inside the pond, people & children met spontaneously, particularly for swimming or bathing. It has been noticed that father is fishing in Sikkatuli Pocha Pukur while child is playing in Sikkatuli Park just opposite the pond. Nevertheless, some spontaneous and long focused activities occurred in the circulation spaces, as in the non circulation spaces. For example, children have been seen improvising cricket match or cycling in the middle of the street of DIT Pushkuni Paar. Both types of interactions in circulation space and non circulation spaces are important in using the ponds. Indeed, if some interactions enable to strengthen already existing relationships, some are opportunities for new interactions to be created.

6. Influence of the presence of facilities in ponds for communal interactions: Sociability through Uses & Activities

The ponds sampled in the survey demonstrate a variety of potential social aspects with amenity values. All were located in close proximity to housing [Figure 08]. Users’ group contain of migrant laborers or poor
local inhabitants, people working in markets, small factories, living in slums or in poor housing conditions as well as middle income people. Most of these ponds are used for bathing and fishing. Various facilities such as ghats, fishing decks, sitting spaces, provision for walkways, tree coverings and vegetable gardens were found in and around the ponds studied. The findings of the observations showed that, in Bangshal pond and Gol Talab containing such facilities was successful in terms of focused interactions and the frequency of focused activities was very high.

**Figure 08:** Various activities around the selected ponds

Bangshal pond and Gol Talab offer opportunities for relaxation and physical activity with various sitting provision as well as community gathering and fishing competition. Newspaper wall at Bangshal pond also create social gathering where both local people and other people share their views with each other. These two ponds support fish, plants, and other aquatic life which are major enhancement to the quality of life in neighborhoods. Every year (June –July) Moulavi KhazaAbdullah Welfare Trust organizes fishing competition at Gol Talab. A series of coconut trees with other tree covering has found on both ponds. Such facilities are not found in Sikkatuli Pocha Pukur of Old Dhaka though the steps of Sikkatuli Pocha Pukur ghat use as relaxation place. The time context influenced the use of these facilities in or around the ponds.
Indeed, the warm afternoons were the ideal time to play with water, as it was the case in Bangshal pond. Clubs and temporary small vegetable markets are seen by the side of DIT Pukur Paar. The frequency of focused activities was not so high at DIT Pushkuni Paar because of the extreme deterioration due to excessive growth of water hyacinth and presence of waste. A majority of physical traces of maximum use is seen on the surround street than inside the pond. Vegetable gardens maintained by nearby residents of DIT pond have also been noticed. Absence of boundary encourages people to pollute water by dropping polythene, garbage etc. In DIT Pukur Paar & Sikkatuli which degrade the water quality of these ponds.

**Figure 09:** Physical environments around the selected ponds

The existing facilities, like benches, enable long and spontaneous social interactions (people mostly meet at those spots & surrounding streets). Moreover, areas with facilities showed the highest frequency of focused activities (e.g. bathing, swimming & fishing). Circulation spaces seemed to stimulate the occurrence of very short and not spontaneous communal interactions (people mostly meet before using the space), as compared to the non-circulation spaces. The circulation spaces still exhibited a high frequency of focused interactions (Bangshal pond), but not more than non-circulation spaces.
### Table 03: Communal Interaction with presence of facilities of the ponds

| Ponds                  | D.I.T. Paar | Dhupkhola Paar | Sikkatuli Pocha Pukur | Bangshal Pond | Gol Talab |
|------------------------|-------------|----------------|-----------------------|---------------|-----------|
| Communal Interactional space: |             |                |                       |               |           |
| (a) Circulation Space/Street & (b) Non Circulation Space/Pond                | Non Circulation Spaces & Non Circulation Spaces |                   |                   |           |           |
| Activities & Interaction types: (a) Active or Focused Interaction (b) Passive or Unfocused Interaction | Bathing, Washing, Waiting | Bathing, Swimming | Fishing, Waiting, Sleeping, Washing |                   |           |
| Sociability             | Average     | Average        | Poor                  | Very good     | Good      |
| Available facilities at present |             |                |                       |               |           |
| Presence of Ghat        | On North & West side | On North only | On South only | On North & South side | On North-West only |
| Fishing Decks           | Absent      | Absent         | Absent                | Present       | Present   |
| Provision of Sitting    | Absent      | Absent         | Absent Ghat Steps use as sitting | Shaded & Open types | Absent |
| Tree Coverings          | Heavy covering on west side | Tree Covering on the four corner | No covering at all | Heavy covering that surround the pond | Heavy covering that surround the pond |
| Vegetable Garden        | Present     | Absent         | Absent                | Absent        | Absent    |
| Security                | Moderate    | Sometimes unsecured | Moderate          | Secured       | Secured   |
| Presence of Artificial Lightings | Inadequate | Moderate | Inadequate           | Satisfied     | Satisfied |

Bathing, Swimming, Fishing, Making Conversation, Community gathering
Fishing
Swimming, Boating, Relaxing, Waiting,
7. Recommendations

This research aimed at exploring how neighborhood pond, through a particular integrated design approach, could facilitate their use and social cohesion between residents of a neighborhood. The observations showed that some elements of the design of the green spaces could stimulate the occurrence of certain types of social interactions like provision for walkway, fishing decks, sitting etc. To revive and assess the sustainability status of existing ponds without compromising on the social, environmental and economic interests an integrated approach should be introduced through detail survey and findings on existing space planning, use of spaces, pattern of social interaction and direct community participation. Improving the health of Old Dhaka’s ponds with the power of partnership and the spirit of community is inevitable. For different pond with different context the following typology of integrated strategies can be implicated.

| Protective | Defensive |
|------------|-----------|
| Taking preventive actions to preserve, revive well-functioning ponds before they are threatened by change or development: | Implementing actions to defend ponds that are suffering from development pressure: |
| • Identification of Heritage Areas (Gol Talab & Bangshal pond) | • Actions & participations (Govt. org-local org-private org.) |
| • Necessity of Open Spaces: Pond, Khal, Lake, River, Park, Field | • Protection from Adjacent Land Uses |

| Offensive | Opportunistic |
|-----------|--------------|
| Taking remedial or restorative actions to reintroduce functions where they do not currently exist: | Recognizing the potential for ponds to be managed or structured differently to provide specific functions: |
| • Additive Sustainable Functions | • Research & Findings |
| • Ecological Restoration | • Implementation of Existing Ideas |

Table 04: A typology of integrated planning strategies for neighborhood pond
As it is found that both Bangshal pond and Gol Talab have better physical (environmental) as well as social cohesion opportunistic planning strategies should be included recognizing the potentials around these ponds whereas in case of DIT Pushkuni and Sikkatuli pond are needed defensive strategy to implement actions to revive from extinction. Development and alteration of the existing water bodies should consider the natural hydrological conditions so that the changes can cope with the artificial intervention. So sustainable management framework for each ward is required to have better water quality as well as encourage social and economical activities along these ponds. The prescribed recommendations are as followings:

**Figure 10:** Regenerative design opportunities along Gol Talab and Sikkatuli Pocha Pukur to improve communal interactions
(a) Restoration and conservation of degraded small neighborhood ponds

Local people should be encouraged to preserve their ponds for water supply and environmental purposes and discouraged to not fill up the ponds. Their participatory action can create huge impact on restoration and conservation of such ponds that is evident from the Bangshal pond which is exceptionally well maintained by the Bangshal Boro Masjid committee.

(b) Guidelines for transformation of existing ponds to sustainable ponds

- Water aeration which will increase the oxygen saturation of water.
- Introduce Fish cultivation for economical sustainability
- Enhance the community garden with small market facilities
- Overabundance of aquatic vegetation such as algae, water hyacinth should be controlled.
- To combat this deadly loss of dissolved oxygen, pond owners often turn to aeration.
- Moderate plant (algae, moss or water grass, water lily, smart weed, arrowhead etc.) growth is essential to water bodies for oxygen, food and cover for fish and other aquatic organisms.
- Boiling Potassium-Di-Chromate should imply for reducing COD level up to zero.
Figure 12: Sustainable Urban ponds unites ecological, economical and physical aspects

(c) The effective pond landscape includes the pond and its immediate catchment

- Enhance the community gathering by promoting walkway, cycle paths, sitting
- Create a place for people for watching bird and wildlife, for fishing, and other outdoor activities, such as swimming, if the pond is large enough, it can be explored by boating also (Figure 12).
- Implement sustainable landscape management strategies is an effective way to reduce the number of potential pollutants found on a landscape site by removing animal waste from, controlling these inputs at the source, soil testing for intelligent fertilizer use, using phosphorus-free detergents to keep nearby ponds healthy.
(d) Evaluation of carrying capacity of old Dhaka ponds

- Biological carrying capacity: the capability of ponds to sustain certain activities before the degradation of water quality or impacts to aquatic life occurs.
- Social carrying capacity: the maximum combinations and intensities of human uses without unacceptable diminishment of people’s enjoyment of the lake due to the presence and activities of other users.
- Physical carrying capacity: the maximum intensity of human use that a pond can accommodate.

(e) Implementation of regularity framework & policies

- National Water Management Plan, 2004
- Bangladesh Water Development Board Act 2000
- Urban Water Body Protection Law 2001.
- Irrigation Water Rate Ordinance 1983
- National Water Policy, 1999
- Bangladesh Environment Protection Act 1995
- Water Resources Planning Act 1992
- Playground, Open Space, Park and Natural Water Resoirver Conservation Act 2000

‘Natural wetland’ means- the place declared as the flood flowing land as River, canal, beel, pond, stream, fountain indicated in master plan by the government gazette or government and flowing water and the land which conserve the rain water should be included here. Filling up of any water body including ponds is a recognizable offence regarding Playground, Open Space, Park and Natural Water Body Protection Act 2000. According to the law, an accused can be sentenced to either five years of imprisonment or a fine of Tk50,000, or both, if found guilty of grabbing any water body.

(f) Progressive evolution of Dhaka’s landscape through City development program

Dhaka North City Corporation (DNCC) has taken ‘Modernization, Development and Greening of Open Places’ project at a cost of Tk. 280 crore and started work on 26 parks and playgrounds whereas Dhaka South
City Corporation (DSCC) is also developing 31 parks and fields under the ‘Jol Sobuje Dhaka’ at a cost of around Tk. 200 crore for healthy development and refreshment of city dwellers, particularly for young. For maintenance, they are preparing to make a co-management system comprising local people and DSCC staff and adding plan to make ponds beside the parks which would make the area more beautiful and thereby take a step closer to make Dhaka city covered with water and green. 63 ponds are found in the maps of undivided Dhaka City Corporation (DCC) in its 28 wards out of 90. Therefore it is important to bring neglected water bodies under such initiative by creating relation between infrastructure, landscape and settlements to enrich the physical environment of an area in the need of the residents to enjoy the water by designing a system which will include urban agriculture, productive park as well as reinforcing community participation among local users and transforming these stagnant small ponds as an area of business, culture and leisure.

8. CONCLUSION

Water Bodies in Dhaka need to be revived and integrated with city fabric to make city sustainable and liveable. Implementation of laws and proposed planning decisions are also urgently needed to save the city. The co-ordination between assigned government authorities for these ponds and private organizations should be addressed to overcome this alarming situation which will help to enhance the sustainability of the existing ponds throughout Dhaka. Moreover, the coordination of local people with the improvement projects and empowerment of local bodies are also urged. Greater environmental as well as socio-economic success or advantages from these neighborhood ponds can be achieved through Regenerative design opportunities and ecological understanding (habitat patterns) with cultural archetypes. If they are not assessed, revived and managed properly, they can turn into a liability.

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