

Policy Brief

Top Down River Management, Planning and Policy: The case of the Yamuna Riverfront Development in Delhi

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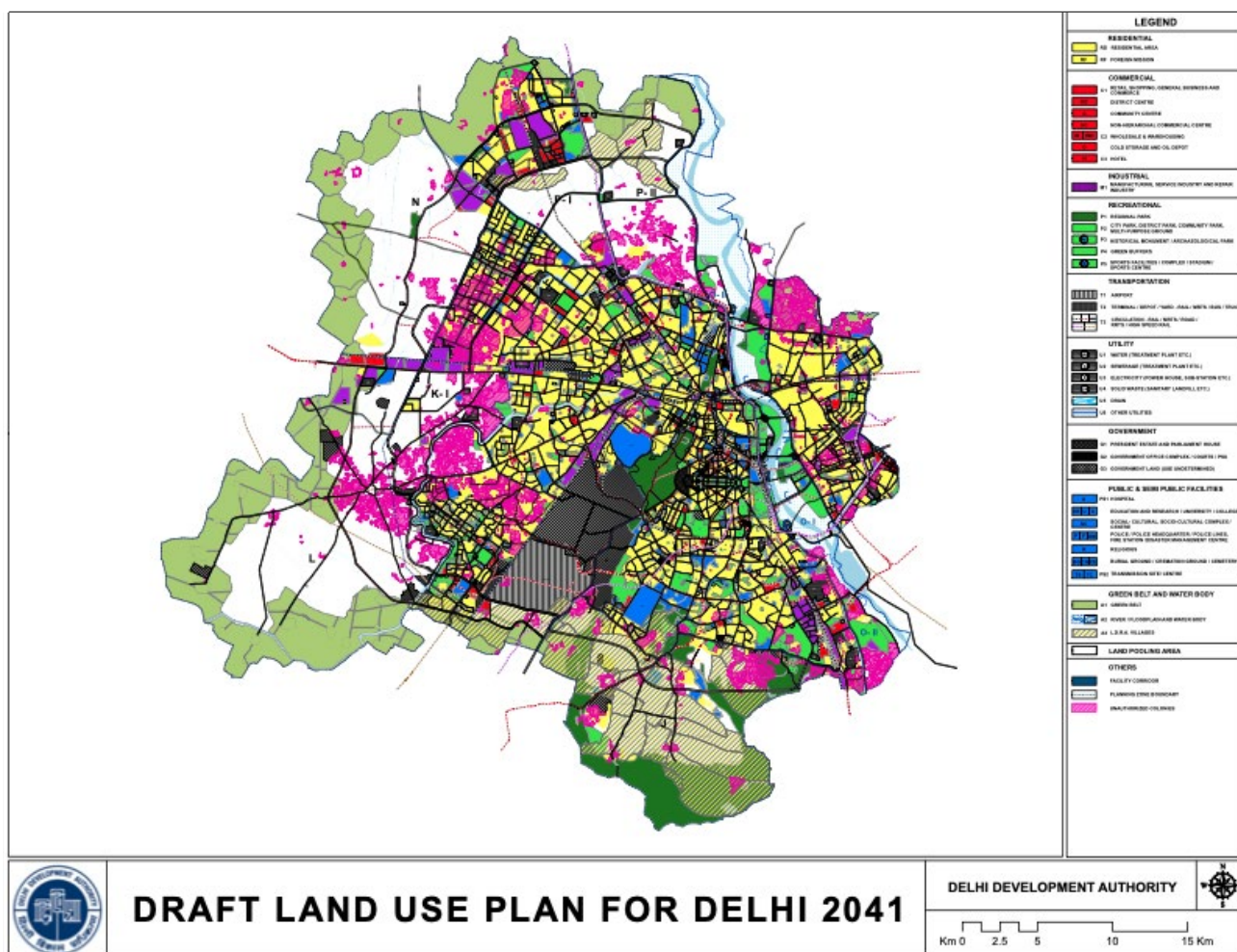
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Introduction

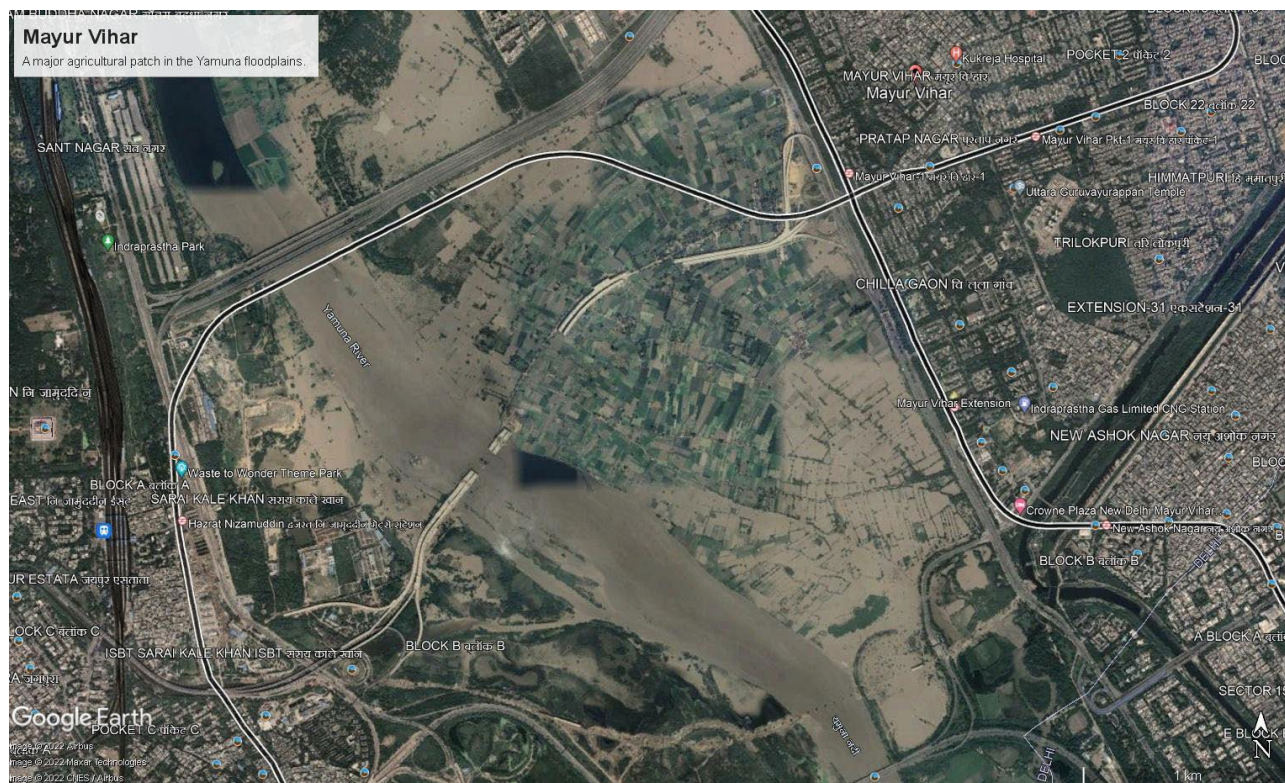


The city of Delhi has been drafting its fourth Master Plan over the last year. In Delhi, this massive undertaking is conducted once every twenty years by the Delhi Development Authority (DDA), the largest land-owning agency in the city, with the primary aim of transforming Delhi into a 'world-class city'.

The subject of this paper's interest is the Yamuna Riverfront Development Project (YRFD), a recurring theme of discussion that has been addressed and developed across Delhi's various Master Plans. YRFD seeks to develop Yamuna's floodplains as a sprawling riverfront worthy of the capital of a global superpower. To this end, the Master Plan classifies the river's floodplains as a specialised zone, the 'Zone O' and a study of the land use plan tells us that most of these floodplains are large empty tracts of land owned by the DDA, parts of which have already been developed under the ambit of the project. But are the floodplains actually empty?

The current situation

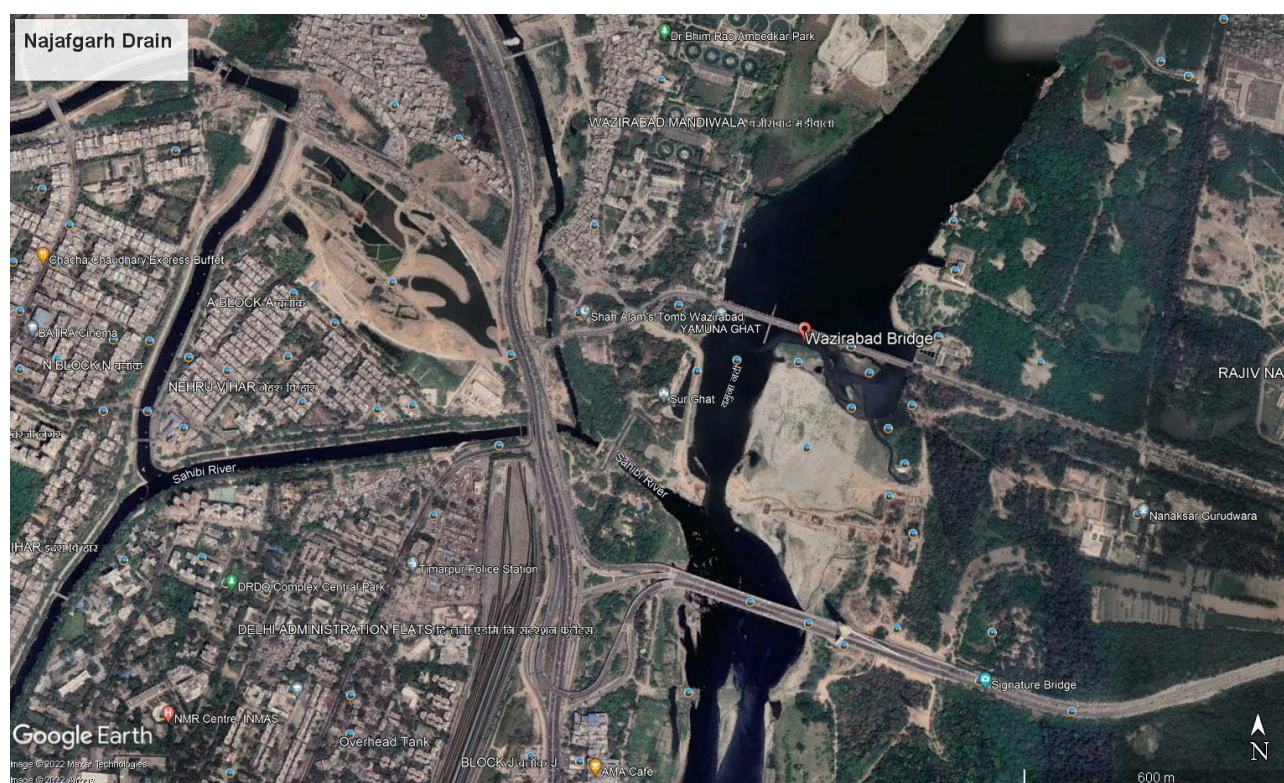
2.1 How are the floodplains currently used?



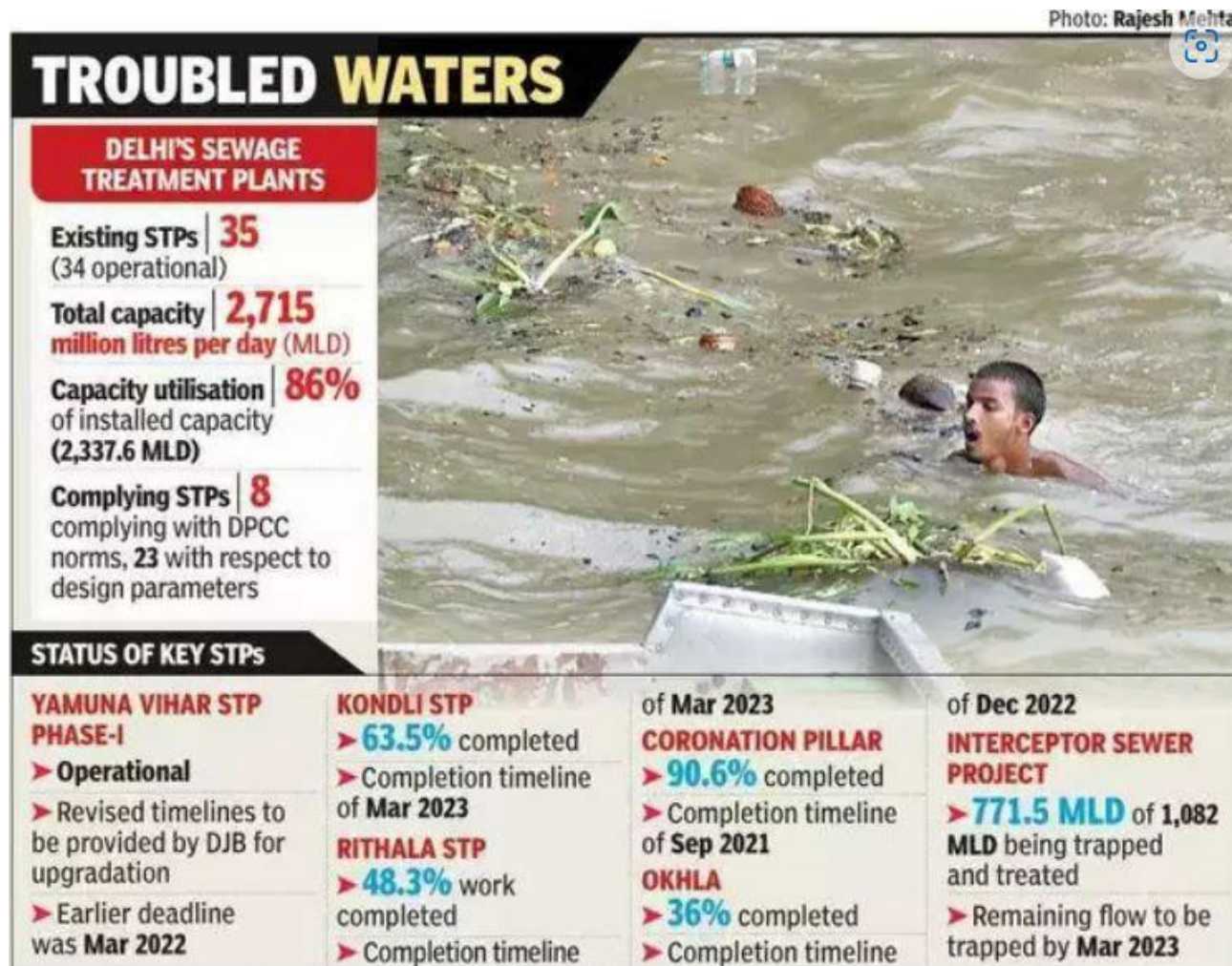
The floodplains are home to many farmlands; significant agricultural use can be noted in the areas of Palla, Burari, Usmanpur, Geeta Colony, Mayur Vihar and Jaitpur. These farms are accompanied by many small informal settlements in the floodplains that are the homes of the farmers who toil on these lands. There is also a small fishing community living in the floodplains, and their settlement is situated around Palla in the northern extremes of the city. The lives and livelihoods of these people are very closely linked to the floodplains. (Rawat, 2022). In addition to the use of the floodplains as agricultural lands, they also have various infrastructural developments like power plants, water treatment plants and various other industrial constructions including a metro depot owned by the Delhi Metro Rail Corporation. These are all heavily concretised constructions, right on the banks of the river, which are very rich and ecologically sensitive lands (Rawat, 2022).

2.2 Why are the Yamuna's waters so dirty?

The river originates at the Yamunotri in Uttarakhand, where its waters are pristine, and the river flows down the Himalayas undeterred. The river reaches the Hathnikund Barrage, where a significant portion of the water is diverted to the east and west canals, taking the river's waters into Uttar Pradesh and Haryana, respectively. What remains of the river then flows downstream and enters Delhi at Palla, where the water, although of reduced flow, is still of good quality. It remains so until it hits the Wazirabad barrage, where the city of Delhi sources its drinking water from the river (Agarwal & Krause, 2013).



Beyond this is where the abuse of the river begins. As the Yamuna flows South, Delhi pumps 22 drains into the Yamuna, carrying untreated or inadequately treated water, replete with toxic industrial waste. Two of these, the Najafgarh and Shahdara drains, are responsible for nearly 76% of the Yamuna's pollution. The water let into the Yamuna from these drains is supposed to be clean water that's let out from the Sewage Treatment Plants (STPs), however, this presents a whole other set of problems (Rawat, 2022).



Delhi has 35 STPs, of which only 8 comply with the norms of the Delhi Pollution Control Committee (DPCC). There exists a gap in the amount of drainage produced by the city and the combined treatment capacity of these STPs. Key STPs are being established to bridge the gap. In addition to this, upgradation of the existing STPs is also proposed. However, the respective authorities continually fail to meet the deadlines for these essential works contributing to the perpetually deteriorating state of the Yamuna (Sharma, 2020).

Additionally, many of the authorities like the DMRC and PWD continue to abuse the floodplains by dumping tonnes of construction debris. The DMRC has been concretising the floodplains, illegally and unchecked, in the parts that it occupies, severely damaging the floodplain ecology and riparian systems (Rawat, 2022).

2.3 Evictions of families living and working in the floodplains

The National Green Tribunal, a special tribunal set under the ambit of the central government, has banned all agricultural activities in the Yamuna floodplains in Delhi since 2015, and it remains banned until such a time that the river water quality has been restored. They claim that the vegetables grown here are toxic, given the unhealthy state of the river water, making them unfit for public consumption and a hazard to the health of the citizenry (Thakur, 2019).

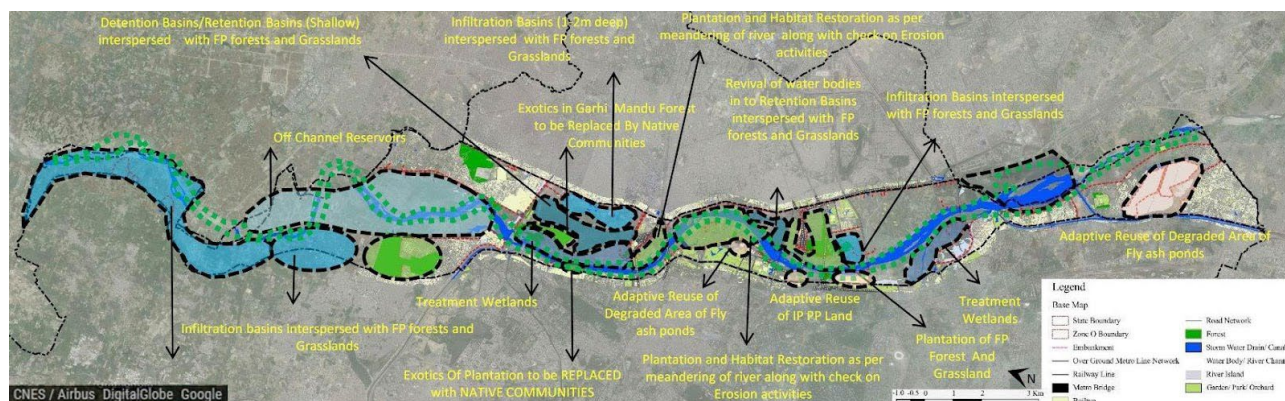
Their claim is supported by the National Environmental Engineering Research Institute (NEERI), whose studies reveal the presence of high levels of lead in the vegetables grown in the Yamuna floodplains (Thakur, 2019). The farmers contest this with reports from the Indian Agricultural Research Institute, often referred to as the 'Pusa Report' locally, whose studies suggest otherwise, further supported by the argument that the farmers here only use groundwater for all their agricultural activities.

It is difficult to decipher the truth, however, this tussle has been enough to align the public opinion against the interest of the farmers, and this ambiguous public sentiment coupled with the NGT's ruling has given the DDA a free hand to conduct evictions in the floodplains to further its interests surrounding the Yamuna Riverfront Development Project.



DDA's proposal and intent

3.1 What is the DDA's vision?



Under the Yamuna Riverfront Development Project, the DDA proposes to develop the entire 22 km stretch of the Yamuna for 'recreational' activities, public facilities, and biodiversity parks. In all, 10 projects are being developed under the Yamuna Riverfront Development, namely, Asita East, Kalindi Aviral, Kalindi Biodiversity Park, Asita West, Amrut Biodiversity Park, Ghat area, Yamuna Vanasthali, Mayur Nature Park, Eco-tourism area and Hindon Sarovar (Rawat, 2022).

Ecosystem Restoration	Minimising Adverse Impact of Anthropogenic Activities	Connect the River to the People in a Sustainable Manner
<ul style="list-style-type: none"> •Ensuring Flood Control •Biodiversity Conservation •Ground Water Recharge •Maintaining Ecological flow •Water Quality Enhancement 	<ul style="list-style-type: none"> •Waste Water Treatment •Water Demand Management •Water Augmentation •Sustainable Development Practices •Storm water Management •Pollution Abatement •Solid Waste Management •Regulating Silviculture & Floriculture 	<ul style="list-style-type: none"> •Enhancing Socio Cultural Development In River Zone •Public Awareness/ Inducing a Sense of Belongingness

The DDA in its project website, which is hosted on a private server and does not show up in an ordinary Google search, outlines that the main objective of the project is to 'protect and conserve River Yamuna through ecosystem restoration, minimising adverse impacts of anthropogenic activities and connect the river to the people of Delhi in a sustainable manner'. The proposal also aims to control flooding by constructing a series of retention ponds across the floodplains, which will be interspersed with floodplain forests and grasslands, defining the 'form and fabric of the landscape' (Yamuna Riverfront Development, n.d.).

3.2 The case of the Golden Jubilee Park

The Golden Jubilee Park, developed in 2013-14 as part of the first phase of the project, is amongst the very few completed stretches of the development. The park is situated on the western banks of the river, right behind the Red Fort Area. The closest metro station linking the park to the city's public mobility infrastructure is the Chandni Chowk station, situated on the Yellow line, which is three kilometres away from the park's main entrance. First-hand mapping revealed that most last-mile service providers, which include pedal and electric rickshaw-wallas, are unaware of the existence of such a park or are unwilling to travel to the location. The author had to bear a cost of Rs. 60 to reach the park on a pedal rickshaw, which can at most seat three people at a time and isn't very affordable for most people.

The entrance to the park is situated along a service road, tucked behind a significantly elevated highway. One would never visit the park if one didn't already know about it, it is completely cut off from the public line of sight. Upon entering the park, a visitor is greeted by cascading lawns with perfectly trimmed grass. One can easily spot the retention pond to the east of the entrance. An interview with some of the park's security personnel reveals that the DDA employs over 40 people who work at the park every day towards its cleaning, maintenance and upkeep.

It is difficult to orient oneself and decipher if one can see the river from the park. The paths are not suggestive of any such opportunity and seem to merge into one another. Some of the evicted families have rebuilt their jhuggis inside the premises of the park, closer to the banks of the river, which are not easily accessible by the general public. Security personnel patrol the park heavily and signboards carrying a list of regulations are laid across the park. The regulations include the prohibition of playing any games such as cricket, football, hockey and such. This seems to defeat the purpose of a park.

During the monsoons, parts of the park flood up entirely. The retention pond proves to be insufficient in holding the river and the park is rendered completely inaccessible during these months. One out of the 22 drains runs right through the park and has been heavily barricaded to avoid public access. It can only be accessed from closer to the bank, where the drain meets the river and a visit to this point reveals a very compromised and hazardous local landscape, filled with solid waste and mucky stagnant water.

Finding a commute back to the metro station is even more challenging than the journey made to the park. To find a rickshaw, one would have to walk to the highway abutting the Red Fort,

which is around 500 mts away from the park. This does not make for a very safe walk during the evening, as the street leading one to the highway is underlit and fairly secluded. Once on the highway, one can only find auto rickshaws, and no e-rickshaws or pedal rickshaws, which are significantly cheaper than auto rickshaws.

Other ways to and from the park would include catching a bus to the Vijay Ghat ByPass bus stop, which is a 200 mts walk from the park and is situated down northwards to the entrance of the park, on the service road, which is also severely underlit at night.

What has been missed out?

4.1 Studying existing patterns of use

The DDA seems to interpret the floodplains as a tabula rasa. Many of the project sites are situated in parcels of land that have significant human habitation, which would cause their eventual forced eviction and lead to a significant loss of home and livelihood. The project outlines how it plans to conserve biodiversity in the region, and supports this with pictures of birds and butterflies. This is an essential concern, and a critical part of riparian ecosystems, but it is haunting to realise that in the DDA's eyes, flora and fauna seem to have more value than some human lives.

The DDA is right when it says that there's very little river-people connect between Yamuna and Delhi. However, the citizenry does interact with the river in many ways. Ghats like the Nigambodh Ghat and the Chatt Puja Ghat, and the smaller local markets that surround them, see a lot of daily footfall from people. However these patterns and forms of use and river-people connect do not seem to have been identified or integrated into the imagination of the project.

The National Institute of Urban Affairs (NIUA), in its report 'Mainstreaming Urban River Management into Master Plans Strategic Guidelines for River Towns', cites the example of the 'River South Greenway Master Plan' in Denver, USA as a prodigious one. The key tenet of this project is the generation of maps that give insight into the current situation and an understanding of the opportunities on which the master plan can be realised.

These are the factors that have been assessed to understand the current situation (National Institute of Urban Affairs & Namami Gange, n.d.) -

01. General Types of Property Ownership
02. Generalised Existing Land Use
03. Existing Zoning
04. Flood Hazard Areas
05. Blueprint Denver

- 06. Neighbourhood Features
- 07. Mobility
- 08. Recreation Features
- 09. Existing In-River Recreation Features
- 10. Aquatic Habitats
- 11. Vegetation Habitat 1
- 12. Sanitary Sewer Infrastructure
- 13. Storm Sewer Infrastructure
- 14. Notable Channel Features
- 15. Barriers
- 16. Landfills

A rich undertaking of such a nature allows the planning and development agencies to make more informed and well-thought-out choices when it comes to riverfront development. In the case of Delhi, there have been similar studies undertaken by various citizen advocacy groups, all the DDA would need to do is acknowledge such studies and positively inculcate them in their conceptualisation of the YRFD.

4.2 Integration of the Riverfront with other river rejuvenation initiative

There seems to be a lack of dialogue across various public bodies like the DDA, DPCC and DJB, all of whom play an integral part in the management of the Yamuna. The STP upgrade works undertaken by the DPCC find no mention on DDA's YRFD project website, even though the status of these STP works is critical to it.

The various public bodies involved in river management activities need to come up with joint systems of accountability and monitoring to ensure a more concentrated and productive approach towards river water and floodplain restoration works. There also seems to be no watchdog body monitoring the overall state of the river. For example, a Supreme Court ruling in 1999 mandated that at least 360 cusecs of water should be maintained downstream of Hathnikund barrage, but this was never implemented and there's no agency monitoring this (Agarwal & Krause, 2013).

4.3 Integrating the parks with existing public transport infrastructure

No matter how beautifully designed, if the riverfront is not easily accessible by people, it is going to be heavily underutilised and neglected over time. Golden Jubilee Park does not seem to have the kind of footfall it should. The locations of key YRFD undertakings should be in close proximity to public transit points, and the DDA should ensure better and safer last-mile connectivity between the transit points and the parks/gardens. The experience of the riverfront is not limited to what happens after one enters the premises but also includes the experience of accessing the premises to begin with.

4.4 Public Participation in the planning and design process

Who is the riverfront being designed for? What would people like to be able to do at the riverfront? What are their expectations? Currently, there seems to be a very top-down and almost secretive approach undertaken by the DDA towards the conceptualisation of the project. The project website is hosted on a private server and even there, not a lot of information has been divulged. If the citizens do not feel involved in the conceptualisation of the project, if not involved at least informed, then it is unlikely that they would claim ownership of the project. The DDA is slated to spend a massive Rs. 1200 crore on this project, it would be a shame if the park is underutilised because of a lack of public engagement during the initial stages.

The Sabarmati Riverfront Development Project (SRFDP), albeit a debatable case study in its design, execution and understanding of riparian systems, is still popular in the city of Ahmedabad; everybody has an opinion on it. During the conception stages, the stakeholders involved would hold various 'janta courts', where the project was discussed and suggestions were inculcated. For example, the Ravivari or Sunday Market was an age-old market that happened every Sunday on the banks of the Sabarmati. Today, the riverfront has a designed stretch to accommodate the Ravivari and this is a product of effective mapping of existing patterns of use and public participation during the design process. It must be noted that the riverfront is also used very actively by the people and is safely accessible all throughout the day (G. Bharat, personal communication, March 2022).

4.5 The people of Yamuna

These floodplains are homes to thousands of farmers, whose vegetable produce feeds millions across the city. At such a time when global cities such as Denver and Havana have been productively introducing urban farming policies to address matters of food security, livelihood and urban landscape, we are looking to get rid of such beautiful patterns of use that already exist in Delhi. The riverfront parks can be imagined as something that is integrated with the farms of the floodplains, and the farmers can be positioned as stewards of these lands, responsible for the conservation of the river and its floodplains. The riverfront can be imagined as a means to promote agro-tourism.

And yet if the DDA chooses to evict the farmers, it should offer reasonable rehabilitation of home and livelihood. The SRFDP, in its project proposal, outlined very novel rehabilitation-related inclusions for the people who would have had to be evicted for the development of the project. It offered resettlement within a 5 km radius, across three proposed housing sites which were to be situated on the riverfront road. However, it must be noted that the execution of such an inclusion has been extremely mired and Land Conflict Watch reports that by 2017, up to 25 of the 10500 displaced/resettled people had committed suicide, and many continue to be stuck in transit camps.

Conclusion

It is almost as though the eviction of the poor is seen as an integral part of the cleansing of the Yamuna. The DDA's modus operandi reveals a very bourgeois understanding of environmentalism and most of its urban development is aimed at catering to the middle-class citizens of Delhi. The DDA needs to investigate opportunities of how it can foster and promote more equitable and just forms of urban development, that don't necessarily have to come at the cost of the homes, lives and livelihoods of its more marginalised citizens.



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