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A river and the riverfront: Delhi's Yamuna as an in-between space

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ABSTRACT

This essay examines the presence of Yamuna in the city of Delhi, from two perspectives: (i) understanding riverscapes as simultaneously aquatic and terrestrial and (ii) understanding these as conjoining issues of environment and technology. With events over the course of the last century as its backdrop, the essay focuses on the last few decades of the twentieth century, to examine the relation of land and river in Delhi; the interface of people and projects, especially the issue of slums; and the risks posed to the river on account of waste and pollution. All these featured prominently in the events leading up to the staging of the Commonwealth Games in Delhi in October 2010, which provides the most immediate context for this essay. In conclusion, I propose that the current strategies of rejuvenating the river are limited, often anti-poor and far from sustainable.

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Introduction

Over the last decade and more Delhi aspired to transit from a 'walled city' to a 'world city'.[1] In the process, it attempted, or at least its elite groups endeavoured, to reshape spatial arrangements, community life and eco-scapes to suit the tastes and desires of its more globalized populations. Transnational flows of capital meshed with international design to create new landscapes of culture and consumption (Brosius, 2010), work and habitation (Bhan, 2009; Dupont, 2008), media and technology (Sundaram, 2011) and new circuits of waste and commodities (Gidwani & Reddy, 2011). The arrival of this new state of affairs was most prominently announced in the recently concluded Commonwealth Games, one which the ruling elite of the city self-consciously advertised as the 'coming of the Indian urban age.'[2] India's (and Delhi's) largest spectacle to date, the Commonwealth Games, much like spectacular events elsewhere, was a means to brand the city and to manufacture solidarities around an urban place 'by imbuing it with an affective charge, a structure of feeling that is generated by the scale, compression and celebratory content of the event itself' (Baviskar, 2011b).

The river Yamuna too figured in the making of this global brand, most notably in the construction of the 'village' on the 'floodplains' of the river to house the participating athletes of the commonwealth nations. Popular accounts of the river's present and futures, in print and electronic media, often referenced it via London's Thames, albeit with a difference – just as the Thames was once polluted and dying, so was the Yamuna in our own times; similar to the ways in which the Thames was cleaned up and made tourist friendly not too long ago, so would the Yamuna be cleaned and made attractive in the not so distant future![3] Delhi's present, the argument would suggest, merely mimicked London's past; its future was already contained

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[1] This was the theme of a major campaign run by *The Times of India*, India's leading English language newspaper.

[2] The Commonwealth Games were held in October 2010.

[3] The latest in this series of river boostering news declares that the residents of Delhi would be able to swim in the waters of the Yamuna, and also use it for drinking purposes, no later than by 2017! 'Hope to drink from river by 2017, says JICA's chief representative to India,' *The Times of India*, October 30, 2014.

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in the metropolitan present.[4] However, even before the river could be rejuvenated, and the water made less polluted, its floodplains had begun to attract builders and developers, eager to construct shining new structures – the games village aside, a temple came up on one bank and a station for the passengers of the metro rail, Delhi's latest world class infrastructure, on the other!

Yet 'Dilli', the city of deep history and contemporary migratory flows, of insecure habitations and cramped work spaces, persisted, in its physical form as much as in its social imaginary. Even as the Yamuna riverfront was being manipulated to house high-end residential complexes and the city's largest public bus depot, there were ceaseless disputes and opposition to grand projects. On the one hand, the persistence of these contrarian voices could be indicative of the last gasp of subaltern populations and marginal spaces before the city is even more fully gentrified through its imbrications in the global order; on the other, they may be suggestive of a more complex and contested future, where Capital must negotiate the Ecological and the Political to produce more layered and in-between spaces.

This essay seeks to mark the presence of Yamuna in the city of Delhi as an in-between space to highlight the different dimensions of the changes mentioned above. Towards this we suggest first the importance of recognizing 'the river' as both land and water, for at issue is not only the future flow of the river itself but also of the status of the floodplains adjacent to the riverbed. This is a matter simultaneously of aesthetics, of the realization of economic value, and of the conservation of nature, all combining in what is an ecological transition zone, between the aquatic and the terrestrial (Lübken, 2012). Second, there is a need to recognize that the river partakes both of nature and culture. It is a humanly impacted artefact but also contains its own properties, such as its propensity to flood during the monsoon rains, which on the one hand limits what may be possible by way of channelizing its flow and on the other is productive of technological transformations such as the building of a series of embankments. In other words, rivers, Yamuna included, are best imagined as envirotechnical systems, with technology and nature completely infused with each other (Pritchard, 2013). Finally, the Yamuna's in-between status as it flows through Delhi is evident in the different valuations of its potentialities – its availability for consumption in the here and now and simultaneously its struggle to survive in the present and into the future. At various points over the last century, the relationship that the Yamuna has borne with the city of Delhi has been subject to material and symbolic transformations, as it has shifted course and been built over. Today, yet again, the river and the riverfront are rather interestingly poised between those who refuse to grant them an integrity of their own – and instead consider these as property like many other, available for 'public purpose' as much as 'private profit' – and those for whom the river has a natural flow and whose links with the city must be muted and sustainable, with the floodplains remaining available for channelizing excess water during the monsoons and for augmenting the city's groundwater resources. The river, the slum dwellers, the urban elite and the public authorities all covet the same parcels of land on either bank, as floodplain, as a fragile site for informal housing, as spaces for constructing monumental buildings, and for building public infrastructure. In the conflicts and negotiations around this multiply situated, in-between space, we may glean the possible futures of the city into the twenty first century.

Yamuna: river and the riverfront

Delhi's Yamuna lost much of her voluminous, playful presence some centuries ago, first to the Western Yamuna Canal built in the 14th century by Firuz Shah Tughlaq, the Sultan of Delhi, to enable irrigation, and thus cultivation, in the largely barren lands surrounding it; yet again in the 1830s when the Eastern Yamuna canal was built for similar purposes by the British; and even more recently by the barrages built at Dakpathar and Hathni Kund/Tajewala, upstream of Delhi, all of this cumulatively resulting in Delhi receiving no more than 10 percent of the water of the river (Haberman, 2006). And yet, the river has also been integral to the city's life for over a century. Towards the closing years of the 19th century, when wells began to fail as sources of drinking water, the river emerged as the chief source of water for domestic purposes.[5] As much of this water that flowed into the city also had to find an outlet somewhere, either on land or in a water body, the Yamuna also served as the city's sink. Little risk attached to this flow of wastewater into the river in the first decades of the twentieth century; on the contrary, there was much debate between officials from Delhi and from the neighbouring United Provinces, about which state had greater claims on the

[4] In his study on domesticating electricity in the late 19th and early 20th century, Graeme Goode makes a distinction between discovering a future and constructing one. Though Goode himself does not dwell on this distinction, I think this is a valuable insight for examining the teleological impulse of infrastructural and developmental projects in the global south, where futures are posited more as discoveries than as autonomous constructions. See, Graeme Goode, *Domesticating Electricity: Technology, Uncertainty and Gender, 1880–1914*, London, Pickering and Chatto, 2008, p. 128.

[5] Delhi State Archives (DSA), *Water Supply Delhi.* Box No. 51/70, W2, Commissioner's Office, 1894.

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wastewater which was potentially a valuable resource for agricultural purposes. If there was an element of risk, it was to human health, on account of villagers along the banks at the tail end of the river consuming the dirty water directly from it without adequate filtration (Sharan, 2014). Concomitantly, the riverside also became available as a new terrestrial resource with land being reclaimed from it to set up a modern power plant, even as the same plant began to pose new threats of water and air pollution (Government of India, 1936).

For much of this history, the Yamuna also informed the aesthetics of Delhi's built spaces. Prof. Nararyani Gupta, the city's foremost historian, describes the beauty of the Faiz nahar (Faiz canal) as its waters flowed through the central streets of traditional Delhi (Gupta, 1981). In time, the canal dried up, but the riverfront still excited the urban imagination. A plan for developing the riverfront was first proposed in 1913, around the time of the inaugural of Delhi as the new capital city of India.[6] The scheme of river improvement and water treatment, the plan drawn up for the new capital mentioned, was intended to provide for an improved and healthier river frontage from Wazirabad on the north (near where the river entered Delhi) to a point below Indrapat (where it exited on the south) (Delhi Town Planning Committee, 1913). In addition, the town planning committee believed such a scheme would add considerably to the attraction of the new capital and therefore deserved full support as 'an important step towards the complete eventual development and embellishment of Delhi.' This aesthetic enjoyment was echoed in the mention of the 'wonders' of the new capital by the poet Akbar Allahbadi around the same time:

I too saw Delhi
Whatever I saw, it was nice
Saw the shores of the Yamuna
The clean beautiful ghats (platform/steps leading to a river) of the river
Saw the mightiest of the Lords
The Duke of Connaught himself! (Allahabadi, 2002)

And in the last years of colonial rule, Ahmed Ali, writing his elegy to elite Muslim way of life that was fast disappearing from the city of Delhi, provided more prosaic descriptions, of occasional walks to the river and flying kites in the monsoon weather (Ali, 2007).

These urban imaginations survived the partition of the city and the nation, and the violence that accompanied it, in August 1947 (Pandey, 2001). The Interim General Plan for Delhi, roughly a decade after India's independence, thus suggested the development of the river front for a multitude of recreational activities including playgrounds, swimming pools, fishing areas, bathing *ghats*, and beaches, along lines that were not so much different from the colonial plans for the riverfront as their elaboration (Town Planning Organisation (TPO), 1956). In addition, it drew attention to the possibility of taming the river by building a dam across it, with the lake behind the dam helping to maintain an even level of water throughout the year and also helping to control the river during the monsoon season. Similarly the second Master Plan of the city, drawn up in 1990, spoke of large recreational areas to be developed on the expanses of land near the banks of the Yamuna, to be integrated with other urban developments, thus enabling the river to become an integral part of the city, physically and visually (Delhi Development Authority (DDA), 1990). Things, however, did not span out exactly as the planners had desired. Instead of the materialization of grand structures of leisure and consumption, what was remarkable for much of the twentieth century was the sheer ordinariness of the flow of the river in the city and the life around it. Agriculture was commonplace, most notably the growing of melon in the riverbed during the dry summer months when the river was practically reduced to a languid stream. Floriculture too was practiced, on the flood plains of the river on either side. There was some fishing too, especially at Okhla on the southern edge of the river. And annual flooding of river was commonplace, as land on either bank was available to permit the free flow of the river during the monsoon months. Much of this was to change, however, in the two decades since.

Waste and pollution

The meandering river could not continue unrestrained for long. Neither could city authorities remain sanguine about the extent to which the river was being affected by the ever increasing amount of waste flowing into it. A new phase in the urbanization of the Yamuna had begun in the wake of independence/partition in August 1947, even as the aesthetic imagination, as mentioned above, had remained much the same. Within a month, the river was subject to a massive flood with local newspapers reporting on the marooned people and cattle between the Yamuna and the Hindon rivers on the eastern side, crops damaged and *kutcha* (made of reeds) houses entirely washed away[7] (The Times of India, 1947). Some years later,

[6] Prior to this, Calcutta had served as the capital of British India.

[7] Several floods had been reported prior to this too, especially severe ones being those in 1924 and 1933, and what is remarkable is that on all such occasions the flood waters are reported to have spread over an area of 5–6 miles, impacting a number of villages, in addition to the city of Delhi itself.

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there was yet another massive flood in 1955–56, with the course of the river shifting and bringing the intake point of the drinking water supply close to the point where the wastewater from the city was discharged into the Yamuna. The consequence was a massive outbreak of jaundice in Delhi, making it the 'first instance in the world of a piped municipal water supply being responsible for a large-scale dissemination of the virus' (Government of India, 1956). Engineering works and planning were recommended as steps to ensure that no such mishaps happened in the future, as also ensuring that no haphazard construction was undertaken, especially in low-lying and difficult to drain areas. Massive schemes were announced for the construction of two independent sewage treatment plants in western and northern parts of the city, for more complete provision of underground sewerage and augmentation of the machinery in the municipal pumping stations (The Hindustan Times, 1956). Around the same time, embankments were built on the east bank to prevent future flooding of settlements in that part of the city. The floods could not be stopped easily, however, and the city remained witness to them at fairly regular intervals right through the 1970s, an especially intense one being the flood of 1978 that breached the embankment on the right bank, flooding considerable areas in north Delhi. Nor was the flow of sewage into the river fully contained. And in time, the challenges posed by these developments, and the persistence of failure in this regard, led to the issue of planning and river management becoming matters of concern for the courts, including the Supreme Court of India (hereafter the Court).

Piecemeal 'environmental' provisions had been in effect in India till the 1970s, but since then comprehensive national laws in the fields of wildlife protection and air and water pollution began to be enacted by the parliament with some regularity (Divan & Rosencranz, 2002). Alongside these legislative enactments, important amendments were also made to the Indian Constitution, most notably with the amplification of the Right to Life to construe the enjoyment of a healthy environment as being in the nature of a fundamental right. In time, the Court moved even further in fleshing out the right to a wholesome environment by integrating into Indian environmental jurisprudence both established and nascent principles of international environmental law including the polluter pays principle, the precautionary principle, the principle of inter-generational equity, the principle of sustainable development and the notion of the state as a trustee of all natural resources (Dam & Tewary, 2005; Rajamani, 2007). Read together with Article 32 that authorized the Court to take necessary action in this regard by issuing directions, orders and writs, there was thus, by the last decades of the twentieth century, a fundamental conceptual transition regarding environmental protection, from nuisance laws of earlier times to one anchored firmly in the domain of fundamental rights now. This transition, in turn, demanded its own activists, interpreters and judicial processes, creating a new space for non-official custodians of 'public' interest and the enunciation of new priorities by the Supreme Court of India. The technological, social and the environmental came together as the city renegotiated its relationship with the river, long the source of its precious water and now the site of its waste, once free to meander but now increasingly calculable through gains and losses of transactions in land and real estate developments.

In response to a public interest litigation (PIL, Sathe, 2002) filed in the Supreme Court of India regarding pollution in Delhi the Court observed in 1994 that 'with the increase of population in Delhi it is of utmost urgency to set up the sewage treatment plants [STPs] within the time bound schedule.'[8] A year later, it observed at length on the state of the Yamuna: 'Apart from air-pollution, the waters of river Yamuna are wholly contaminated. It is a paradox that the Delhiites – despite river Yamuna being the primary source of water supply – are discharging almost totality of untreated sewage into the river […] The water quality of Yamuna, in Delhi stretch, is neither fit for drinking nor for bathing.'[9] And therefore, it suggested, the treatment of sewage was of utmost importance for health and for supply of pure water to the citizens of Delhi. Any delay in this respect would be a health-hazard and therefore could not be tolerated. The project was not only of great public importance, but indeed also of national importance![10] Not all were convinced. The potential dispossessed, those whose lands had been earmarked for being taken over for the construction of the sewage plants, went to the Delhi High Court and obtained a stay order demanding compensation on current prices, only for it to be vacated by the Supreme Court. Villagers of Jasola, Nilothi and Shaffipur Ranola in Keshavpur whose lands were set to be acquired for the purpose of setting up of pumping station/sewage treatment plants pointed to the Court that the land in dispute was shown as agricultural green in the Master Plan and Zonal Development Plan whereas it was being acquired for the purpose of setting up the STP. The acquisition therefore, they argued, was contrary to theses plans. But the Plans could not be an effective deterrent, the Court observing that whatever may have been the use of the land under the Master Plan and the Zonal

[8] Cited in Supreme Court of India (SCI), 1995 Jai Narain and Others versus Union of India, on November 29, 1996 SCC (1) 9.
[9] SCI, 1995 Jai Narain and Others versus Union of India, on November 29, 1996 SCC (1) 9.
[10] SCI, 1995 Jai Narain and Others versus Union of India, on November 29, 1996 SCC (1) 9.

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Development Plan, the state could always acquire the same for public purpose, and the building of sewage treatment plants was exactly such an urgent public purpose. In any case, the object and purpose of constructing the STPs, it ruled, were to protect the environment, control pollution and in the process maintain and develop the agricultural green.[11] A legal case for acquiring land for building treatment plants (as public purpose) was thus clear, but in time, the measure proved rather limited in its efficacy and the limits of such capital intensive technologies began to surface. In August 2003, the Central Pollution Control Board (CPCB) reported that out of the total of 30 STPs, 20 were running under capacity, 5 STPs were running over capacity, 3 STPs were non functional while only 2 STPs were running to their capacity! By 2006, Delhi had built 17 sewage treatment plants, 10 common effluent plants, repaired 30 km of trunk sewers repairs (out of 130 km) and removed several *jhuggies* (slums) from the riverfront. It had in the process acquired 40% of India's total installed capacity of STPs, but utilization capacity was still suspect with close to a quarter of the plants working at less than 30% capacity. Large parts of the city still lived in illegal settlements, and since on that count their habitations could not be connected to official pipelines, the irony of increasing sewerage load and existing plants that somehow could not connect with sites of waste generation was more than evident (Centre for Science and Environment (CSE), 2006).

Pollution and displacement

Alongside the issue of requisite infrastructure, a different narrative of dirt/waste/pollution of the river and the fate of the people residing adjacent to it began to unfold. Since the building of the first embankments on the Yamuna in 1955/56, several new embankments had been built in Delhi. Equally, the lands between the river and these embankments had gradually become sites for informal housing, consequent upon the massive flows of migrant labour into Delhi, especially in the wake of the construction requirements for the Asian Games of 1982. Little to no formal housing being available for these migrants, it was but natural for them to seek more informal living spaces. As an instance of this, Bhan notes the filling in of the vacant marshy embankment on the eastern bank, considered 'too soft' to be built upon, with leftover sand and brick from construction sites, slowly turning it into a habitable settlement (Bhan, 2009). To no one's surprise, such auto-construction, which had been a characteristic feature of most southern cities, Delhi included, did not merit any sanction of an authorized Plan. To begin with, their presence was tolerated, and only rarely enforced through law, the issue seen as 'more social than legal'.[12] Over the past few decades, however, this 'toleration' began to run thin, even as the numbers of slums and slum dwellers increased.[13] On the other hand, their illegality began to attract greater attention, a feature yet again in common with other countries where neoliberal economic and social agendas have come to the fore (Comaroff & Comaroff, 2006). Thus among the components of the Integrated Plan for the Yamuna as elaborated by the Supreme Court was also the removal/relocation of slums from the Yamuna river banks and the drains of the city.

Signs of this had been around for some time since the mid-1990s, the Court referring to its sense of anguish at Delhi having become one of the most polluted cities in the world.[14] Even more damningly, it had gone on to observe that the establishment of slums appeared to be well organized and a good business, leading to their multiplication by geometrical proportions. Large areas of public land had thus been usurped for private use free of cost. Under the circumstances, the Court reasoned, rewarding an encroacher on public land with free alternate site would be like giving a reward to a pickpocket, thereby setting the scene for a new round of displacements of the urban poor.[15] A couple of years later it was the turn of the Delhi High Court which in March 2003 ordered the different governments in Delhi to clear the banks of the Yamuna, as the issue of encroachment got entangled with the question of pollution. Electroplating units, dye units and dairies, together with the seemingly unending flow of human excrement, came together to present a picture of the 22 slums cluster (the Yamuna Pushta, the largest slum cluster in Delhi) as being the major spoiler of the river (The Hindu, 2004). Activists begged to differ. According to one such study, around 3600 million liters of wastewater generated in Delhi went into the Yamuna every day. Of this, less than one percent of the wastewater was the contribution of the slum dwellers (Hazard Centre, 2004)! Notwithstanding, government authorities remained persistent in their views, the *Recommendations of the Committee of the Ministry of Urban Development for Yamuna Action Plan* continuing to insist on the flow of untreated

[11] SCI, 1995 Jai Narain and Others versus Union of India, on November 29, 1996 SCC (1) 9.

[12] This expression was used by Rajkumari Amrit Kaur, India's first minister for Health, in the context of planning for slums in the 1950s. Clearly slums have been cleared before too, but as Bhan suggests it is the intensity that is new. To this, I also suggest that we consider the extent to which slums have changed from being a social problem (1950s/60s) to a legal one (1990s/2000s).

[13] According to one estimate, by 2004, almost 350,000 poor squatters lived along the Yamuna in Delhi (Baviskar, 2011a).

[14] SCI 1996 Dr. B.L. Wadehra vs Union of India & Ors on 1 March, 1996 SCC (2) 594.

[15] SCI 2000 Almitra Patel versus Union of India and Others, on February 15.

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sewage from the slum clusters as an important contributory factor for the polluted condition of the river (Dupont, 2008). The consequence was that while 51,461 houses had been demolished in Delhi between 1990 and 2003 under 'slum clearance' schemes, as many as 45,000 homes were demolished between 2004 and 2007 alone, while eviction notices were served on at least three other large settlements towards the end of 2007 (Bhan, 2009). And in the place of these displaced settlements came up the Yamuna Expressway, a four lane highway built to speed up traffic at the time of the Commonwealth Games, bringing one more feature of 'world class' Delhi to the Yamuna bank (Baviskar, 2011a). Several other structures, public and private, as mentioned above, also began to find space, including Delhi's largest depot for its public bus service, high-end luxury apartments originally designed to house athletes participating in the Commonwealth Games and metro stations. And in what must rank as a supreme irony, the office of the Delhi Government itself remained housed in the building constructed to accommodate players at the time of the Asian Games in 1982. Follman (2015), drawing upon Roy (2009), rightly notes that much of this has been possible by making 'exceptions' – the informality that is inherent in practices of the state, following a style of 'development' that empowers it to permit some large scale structures (metro and bus depots) while aggressively denying others (slums). Equally, we may add, none of this went uncontested, as those adversely affected – the farmers who were once permitted to cultivate on the floodplains of the river; the slum dwellers who had constructed their homes with much difficulty – joined hands with civic organizations to protest the taking over of their spaces.

The river at risk

As evident from above, by the 1990s it had become clear that not all was well with the river, and its imminent death was much anticipated, affected as it was by practices both local and regional. Pesticide runoffs from fields in the neighbouring state of Haryana, upstream of Delhi, were an issue of contention between the two state governments. In Delhi itself, there was the untreated domestic waste of the residents, living in the formal city or in informal slums that found its outfall into the river. The city's industries, though largely situated away from the river, with the exception of a major power plant, also used the river as a major outfall for their effluents, treated or otherwise. And in addition, the immersion of the idols of Gods and Goddesses, once made of clay and natural colours, but now increasingly using dyes and chemicals, began to pose a new threat to the future of the river. And thus the Yamuna, which for much of human history had been viewed as a nurturing and life-enhancing goddess, increasingly came to be identified as a Goddess of death, the sister of Yama (Haberman, 2006). There were thus both old and new risks, for the river itself, for those who lived alongside it and also for communities downstream who increasingly began to bring their concerns to the protest sites of Delhi. In response, the latest Master Plan of the city conceived of the river front a lot differently, suggestive as its predecessors of the visual integration of the river and the city, but marked by a deeper concern with environmental loss: 'At another level, a strategy for the conservation/ development of the Yamuna river bed area needs to be developed and implemented in a systematic manner. The issue is sensitive both in terms of the environment and public perceptions. Any such strategy will need to take into account the cycle of flood occurrences and flood zones, the groundwater recharge potential and requirements, potential for reclamation derived from the foregoing considerations, designation and delineation of appropriate land uses and aesthetics of the River Front which should be more fully integrated with the city and made more accessible – physically, functionally and visually' (Delhi Development Authority (DDA), 2001).

Over the last two decades or so there has thus been a total transformation in the nature of the river which over long stretches is now dead, having ceased to be a perennial river and being extremely polluted. The Courts had gone one way with this 'fact', an aggressive stance against the illegal poor coupled with highly capital intensive, even if largely ineffective, technological solutions. Environmentalists, especially those associated with the Yamuna Jiye Abhiyan (Keep Yamuna Alive Campaign), instead made a plea for understanding the river as an ecosystem, of which riverbeds and floodplains were an integral part (Colopy, 2012). Their arguments were based both on moral and economic grounds. For millions of years, during the monsoons, some suggested, the Yamuna had been bringing sand from the mountains and depositing them on its path, thus forming the flood plains. This sandy layer was both porous and had negligible salt content, making it an ideal water recharge zone and fresh water reservoir. By contrast, rooftop rainwater harvesting had a much lower potential, the costs of undertaking water recycling in the event of the loss of the flood plains was prohibitive, and the expense and risks of bringing water from distant sources productive of even more risks (Soni, 2003).

Thus beginning summer 2007 the Yamuna Jiye Abhiyan, along with several others, decided to launch a *satyagraha*, the Gandhian tactic of moral struggle, resolute but non-violent, against the ongoing encroachments on the river. They took their case to the Prime Minister's Technical Committee on the Yamuna

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River Rejuvenation, before approaching the High Court with the plea that the ongoing constructions for the Commonwealth Games be stopped and the ecology of the river restored.[16] The High Court responded by issuing directions for setting up of a committee to enquire as to whether the Games Village (GV) site complex was situated on the Yamuna 'riverbed' or 'floodplain'. It did not stay the construction, though it did observe that any construction made or third party rights created were at the peril and risk of the organizers/ government. The High Court's orders left the government aggrieved and the activists dissatisfied, and the matter now reached the Supreme Court. Two issues figured in the debate. One was the matter of delay, the time lag between the original proposals to undertake developments on the riverfront (1989), the decision to construct the GV on the present site (2003) and the filing of the Writ Petition in 2007, the Court observing that such delays after much construction had happened was against national interest and contrary to the established principles of law.[17] The second concerned the assessment of potential damage to the riverside environment. Technical assessments regarding this, petitioners submitted, had shown great variance over time, with only the final report permitting construction of the GV complex. They also submitted that inasmuch as the city of Delhi was wholly dependent on the Yamuna river, its riverbed and floodplains had to be protected. They referred too to ecological principles of 'polluter pays' and the 'precautionary principle.' Their arguments, however, failed to convince the Court which pointed instead to the initiation of the Yamuna River Front as a Development Area as early as 1989, followed by a public notice changing the area from 'Agricultural and Water Body' to 'Public and Semi Public Facilities', which was then followed by a notification to the same effect in 1999, after which the Master Plan was suitably modified, and the Yamuna River Development Authority set up in 2007, all this to suggest that 'at every stage, ecological integrity of the river, the concept of 'river bed', 'floodplain' and 'river zone' were duly considered.' Most interestingly, on the discrepancies of various technical reports, the Court went by the argument that while the previous reports had considered the boundaries of the Yamuna river as demarcated by the east bank and west bank bunds, this was no longer the case since 2002 when a new bund had been constructed for the Akshardham temple, such that the area under consideration was no longer a floodplain, leave alone a riverbed.[18] The irony of a court mandated division of areas into floodplains and riverbeds, safe from all natural hazards, however, was evident in Delhi's flooding that very year, including the GV site, permitted by the Court to be built as a permanent structure!

The path not taken

To focus on just what had come to be, while ignoring possible alternatives, would be to understand these transformations as somehow natural or inevitable. Instead one may ask: could the Court have taken another route? The precautionary principle cited by the activists had been formalized in the 1992 Rio Declaration on Environment and Development, among other international conventions: 'In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.' Since then, the statement had been open to differing interpretations, though this did not detract from its increasing citation to justify the implementation of vigorous policies to tackle issues as diverse as river contamination, acid rain, global warming and North Sea pollution, among others. In India too, the Supreme Court had on several occasions observed that the 'precautionary' and 'polluter pays' principles were both a necessary component of ecologically sustainable development and within the ambit of Indian laws. What this implied was that the government and statutory authorities were expected to anticipate and prevent the causes of environmental degradation, especially in cases of serious and irreversible damage, with the onus of proof of no harm being on the developer/builder rather than the persons claiming harm.[19] The weight of irreversibility in environmental law was spelt out at length too, with the Court observing that the precautionary principle was based on the theory that it was better to err on the side of caution to prevent environmental harm which ran the risk of becoming irreversible. Environmental protection moreover, they also observed, should not only aim at protecting health, property and economic interest but also protect the environment for its own sake.[20] In the light of these observations, and in light of the fact that such irreversible damage regarding the Yamuna had been at the centre of the petitioners' concerns, hopes could be entertained that the Court would bypass traditional demands of 'irrefutable' evidence and 'sound' policy. Indeed such had

[16] SCI 2009 DDA versus Rajendra Singh and Others, on July 30. The details of the proceedings in the different courts are based on this.
[17] SCI 2009 DDA versus Rajendra Singh and Others, on July 30.
[18] SCI 2009 DDA versus Rajendra Singh and Others, on July 30.
[19] SCI 1999 A. P. Pollution Control Board versus Prof. M. V. Nayudu, on January 27; 2 SCC 718.
[20] SCI 1999 A. P. Pollution Control Board versus Prof. M. V. Nayudu, on January 27; 2 SCC 718.

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been the case in the matter of air pollution in Delhi, wherein the Court had marshalled health-based evidence in conjunction with the precautionary principle to insist that all public transport be run on a single clean fuel (Mathur, 2003). In the case of the Yamuna, however, the innovative policy/legal possibility failed to be realized as the Court chose to go by the weight of evidence produced by official experts that assured minimal harm. 'The decision of expert and autonomous bodies,' it observed, 'supported by materials placed by other [expert] bodies, the same cannot be lightly interfered with by the Court without adequate contra materials.'[21] Delhi, and Yamuna, was thus at a crossroad, and has been since then. The Akshardham temple paved the way for the GV and the metro stations, which in turn paved the way for Delhi Metro Corporation's staff quarters, even as the Delhi Urban Arts Commission, Yamuna Jiye Abhiyan and others pointed to the violations of the Master Plan and the continued vulnerability of any construction on the Yamuna riverbed (Ray, 2010).

Conclusion

This essay has examined the historical transformations in and around Yamuna in Delhi, with a particular emphasis on changes that have occurred over the past couple of decades. In this exercise we have tried to examine the different ways in which the river has functioned an in-between space, not just geographically (being situated within the city boundaries) but also conceptually. We have suggested, first, an understanding of the river-in-the-city as simultaneously terrestrial and as aquatic, with the fate on one intimately linked to the other. Thus while on the one hand, the frequency and intensity of evictions has increased as the river has sought to be 'cleaned', on the other, the state's powers to make 'exceptions' has led to developments of megaprojects, even if on the floodplains (Bhan, 2009; Follman, 2015). The essay has also underlined the importance of the river as an envirotechnical system, while referencing the long history of technological developments in the form of bunds and sewage treatment plants, through which the morphology of river flow and quality of the river water have been impacted in Delhi. Notwithstanding the continued faith in these technological processes, as evident in various rulings of the Court for instance, we have suggested that capital intensive infrastructure projects have been far from effective, necessitating alternative approaches, more sensitive to community needs and local participation (Centre for Science and Environment (CSE), 2006). The essay has also drawn attention to a new line of reasoning, anchored in the precautionary principle which, anticipating serious and irreversible damage to the river, sought to put a moratorium on any new constructions on the Yamuna flood plains. In the ensuing Court argument, this line of reasoning failed to prevail, though we suggest that its deployment in other issues of environmental concern in Delhi (air pollution) offers a new resource for intervention. Finally, we argue that long-term sustainability of rivers in India requires that they be imagined as rivers-in-flow, with river restoration projects yielding to river rejuvenation projects (Dandekar & Thakkar, 2012; Misra, 2013). It is only by evoking a new imaginary for Delhi as an in-between space between the hills, where the river originates and where it is increasingly being damned to provide water for cities, and downstream where residents of other cities suffer on account of the waste and pollution caused by Delhi, that we may begin to chart an alternative path, both for the Yamuna and for the city of Delhi.

[21] SCI 1999 A. P. Pollution Control Board versus Prof. M. V. Nayudu, on January 27; 2 SCC 718.

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