The Adi Ganga

A Forgotten River in Bengal
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Vol. 51, Issue No. 8, 20 Feb, 2016

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The article sheds light on the Adi Ganga, one of the most significant streams of the Ganges in its lower course, and narrates how the stream (later Tolly’s Canal) which was once the life line of Kolkata transformed into a mere sewer and was ruthlessly slaughtered with the changing politico-economic interests of the state.

Introduction

Cities and civilisations flourished on the banks of rivers, rivulets, canals and creeks—popularly known as “riverine ecology.” The relationship between wo(man) and nature was that of mutual interdependence. This continued till capitalism commodified labour and transformed the sustainable relationship between the social and ecological to “metabolic rift” in Marxist terms (Foster 2000). This economic system ensured that nature was commodified in keeping with the politico-economic interests of the state.

Within this framework, the article studies the Adi Ganga, one of the significant streams of the Hooghly River across historical trajectories since the pre-colonial to the present times. Using a political ecology approach it traces the shift in development perspectives that determined the fate of the stream in colonial and postcolonial Kolkata.

The Present Situation of the Canal

One cannot miss the sight and foul smell of a polluted water tract beneath Alipur bridge on the way to the National Library or while travelling from Naktala to Garia in the southern part of Kolkata. This water tract is none other than the Tolly’s Canal which was part of the old route of the Adi Ganga revived by William Tolly between 1772 and 1777.

The derelict condition of this important water channel can be partly attributed to the fact that Calcutta’s canals were excavated for two reasons—trade-transportation and drainage-sewerage-sanitation.

Though it was properly maintained during the colonial period (due to its important role in riverine ecology), in the post-independence period it turned into a sewer because the water
The canal was neither restored, nor maintained. Huge amount of silt was deposited when the heavy silt laden water of the Hooghly River entered the canal especially during high tides resulting in the increase in the bed level at alarming proportions ranging between 6 and 12 feet (Vasundhara Foundation unpublished report).

A large number of sewerage drains belonging to the Calcutta Municipal Corporation (CMC) and the Calcutta Metropolitan Water and Sanitation Authority (CMWSA) discharged untreated effluent directly into Tolly’s Canal. These networks did not have lock gates to check and regulate the flow of water during high and low tides. The canal carried effluent from the southern part of the city and discharged it in the eastern marshlands (later called the East Kolkata Wetlands). It was also polluted by household garbage from local residents.

Some schemes and plans were discussed to revitalise the canal since the late 1990s such as the Calcutta Environment Management Strategy Action Plan (1996–97) (CEMSAP). However all plans went into disarray when the metro rail was planned between Tollygunge and Garia, the elevated railway tracks going directly over Tolly’s Canal. 300 pillars, each at a distance of 20 m from the other, were dug into the canal bed.

(Source: Survey Report 2008, Metro Railway, Kolkata. Courtesy: Jenia Mukherjee)
The metro rail project was sanctioned in spite of protests, petitions and litigations from different rungs of society and in spite of violation of Environmental Protection Act (EPA) 1986 and Environmental Impact Assessment (EIA) Notification, 1994. The strongest weapon to facilitate the implementation of the project against tremendous socio-ecological cost was the archaic Section 11 of the Railways Act 1989, a leftover of the colonial revised edition of the Act of 1890 that provides the railways to construct, “... upon, across, under or over any land, any rivers, canals, brooks, streams or other waters...”

**Ganga’s Old Stream**

The Adi Ganga, also known as the Gobindapur creek, Surman’s Canal and (presently) Tolly’s Canal, was the main flow of the Hooghly River between the 15th and 17th century that virtually dried up due to natural reasons (Roy 2005).

The Hindu legend of the Ganges in Bengal will provide a background on the importance of the river to the lives of people. The king of Oudh, Sagar, who was the 13th ancestor of Lord Rama and the 7th incarnation of Vishnu, performed the **Aswamedha Yajna** (horse sacrifice) 99 times. He was desperate to perform the yajna one more time, but Lord Indra, the king of heaven, who had already performed it 100 times and earned the title “Satamanna,” was jealous of being displaced by Sagar. He subsequently stole Sagar’s horse and concealed it in a subterraneous cell, where the sage Kapilmuni was meditating. The 60,000 sons of Sagar started searching the horse and ultimately they were able to trace it. They assaulted Kapilmuni as they suspected that he was the thief. Beside himself with anger, the sage cursed them and they were burnt to ashes. A grandson of Sagar came to Kapilmuni and begged him to redeem the souls of the dead. That was only possible if the waters of Ganga (the aqueous form of Vishnu and Lakshmi) could be sprinkled to the ashes. Bhagirath prayed before Brahma, the creator, to send Ganga to earth. Bhagirath led the way as far as Hathiagarh in the 24 Parganas, but was unable to show her the way beyond that. Ganga, in order to make sure of reaching the desired place, divided herself into numerous channels, and thus formed the delta. One of the channels reached the cell, washed the ashes, purified the souls which then could reach the heaven.

Ganga thus became the sacred stream; the sea took its name “Sagar” (Hunter 1998); this point of junction of the river and the sea (known as Ganga Sagar where an annual festival is held) is considered a holy place by Hindu pilgrims.

The earlier course of the lower Ganges as it flowed through the Bhagirathi channel was somewhat different from what it is today. At Tribeni, near Bandel, the Ganges branched into three streams (Majumdar 2005). The Saraswati flowed in a south-westerly direction, past Saptagram. The Jamuna (not the same river as in North India or many streams of that name in eastern Bengal) flowed in a south-easterly direction. The Hooghly flowed in the middle; it glided down to Kolkata and then flowed through the Adi Ganga, past Kalighat, Baruipur and
Magra to the sea.

So far as the old route of the Adi Ganga is concerned, the original channel was quite identical to present day Tolly’s Canal from Khidderpore to Garia and further on to the sea. According to old records, the Adi Ganga emerged out of the Sundarbans at Kakdwip, from where it passed along the Baratala River (Muriganga) and then "found a passage along a creek between Dhoblat and Monosardip, and proceeded first in a westerly and then in a southerly direction until it fell into the Bay of Bengal at Ganga Sagar" (O’Malley 1998).

During the second half of the 19th century, the colonial official WW Hunter reflects, “The old channel is still traceable as far as Hathiagarh Fiscal Division, where it loses itself. This channel long ago dried up, and the bed now consists of a series of tanks. Many large Hindu villages are situated on the banks of the old stream, which is called the Adi, or original Ganga. The Hindus still consider the route of the channel sacred, and burn their dead on the sides of the tanks dug in its bed (Hunter 1998: 14–15).”

The Adi Ganga was also known as the Gobindapur creek as it marked the southern boundary of the Gobindapur villages. The virtual drying up of the river is often connected to it being artificially linked to the lower channel of the Saraswati, whereby that became the main channel for oceangoing ships and the Adi Ganga became derelict.

**Excavating Tolly’s Canal**

Calcutta’s colonial urban planning and development is loaded with the history of excavation of canals and reclamation of marshes. In 1690, Job Charnock, along with his council and a contingent of 30 troops, landed on a narrow strip of land on the bank of the Hooghly River, surrounded by swampy jungles and brackish lagoons on all sides. From several colonial reports, letters, and other secondary sources it is evident that this place was uninhabitable.

In spite of such disadvantages why did the British still select this marshy tract of land as the colonial capital? This was because Calcutta was “ecologically subsidized” (Ghosh 1997) with the Hooghly in the west, Bidyadhari in the east and the numerous tributaries, distributaries, channels and creeks in between as also the saline marshes and swamps to the extreme east that provided unique opportunities to the mercantile British colonisers.

Interestingly, the nomenclature “Calcutta” is a reflection of its hydraulic topography. Calcutta lay in the centre with Sutanuti to the north and Gobindapur to the south. The middle portion of the landmass was marked by indentation in the coastline because of creeks and inlets. To denote this, a Bengali word was used—“kol-kata,” “kol” meaning shore, coast and “kata” meaning cut open. The two words together imply a coast or shore cut open by creeks and inlets (Biswas 1992: 18).

The colonial understanding of the significance of this site in terms of both defensibility and serviceability led them to intervene with and tame the natural ecology (channels and
marshes) into waterscapes involving the use of labour and capital in the production of nature (Baviskar 2007). This was the best way to ensure a riverine transport system and simultaneously find solutions to drainage, sewerage and sanitation for the emerging urban site with revenue generation motive at its core.

The excavation of the Tolly’s Canal by reviving part of the old route called Adi Ganga was the first revolutionary step taken by the colonisers to avoid the existing route which was not only circuitous but also impractical for the movement of the country boats especially during monsoons (O’Malley 1998). On 6 July 1775, Major William Tolly applied for permission to excavate a canal between the Hooghly and the salt lakes (to the east of Kolkata) at his own expense. He initially suggested two alignments—one to the north and the other to the south of Calcutta. The latter received the government’s approval. Tolly received a temporary land grant from the government for a term of 12 years and the right to levy tolls at 1% on the price of all goods carried by country boats that would take up this route using the canal.

In 1776, the old bed of the Ganges was excavated from its confluence at Hastings, south-eastwards to Garia, a distance of 13 km. Then the canal was excavated till the point it met the Bidyadhari River at Samukpota, a distance of 15 km. Thus, it could provide access to an
inner route which led eastwards from Canning (towards the south of Kolkata near the mouth of the Bay of Bengal).

The 27 km long canal (named Tolly’s Canal after William Tolly) was opened for navigation in 1777 to accommodate boats of 400 maunds. After the death of Major Tolly, Mrs Tolly was given the right to levy tolls and it was taken over by the government in 1804. Apart from playing a huge role in trade and transportation, the canal acted as an outlet for waste water of the city.

From various official reports and letters we find that the colonisers invested in timely maintenance of the canal (Inglis 1909). This was imperative as the functioning of the water route accomplished colonial capitalist intentions promising huge returns over investment. There are records that reveal boat traffic and goods carried through Tolly’s Canal during the 19th century (Table 1). It is interesting to note that the water-borne traffic (including Tolly’s Canal and other canals) to Calcutta was seven times more than what was carried by the Eastern Bengal State Railway during the 19th and early 20th century (O’Malley 1998).

Table 1: Boat Traffic and Goods Carried Through Tolly's Canal (1868-69)

<table>
<thead>
<tr>
<th>Articles</th>
<th>Name of Chowkey</th>
<th>Number of Boats</th>
<th><strong>Mundage by Canal Measurement</strong></th>
<th><strong>Mundage of Cargo by Estimate</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>Samookpota Russah Kidderpore</td>
<td>203</td>
<td>2,12,000</td>
<td>1,23,550</td>
</tr>
<tr>
<td>Imported Fabrics</td>
<td>Do</td>
<td>4</td>
<td>900</td>
<td>300</td>
</tr>
<tr>
<td>Rice</td>
<td>Do</td>
<td>3,623</td>
<td>13,63,300</td>
<td>6,40,975</td>
</tr>
<tr>
<td>Jute</td>
<td>Do</td>
<td>14</td>
<td>3,3,050</td>
<td>15,700</td>
</tr>
<tr>
<td>Indigo</td>
<td>Do</td>
<td>5</td>
<td>1,150</td>
<td>1023</td>
</tr>
<tr>
<td>Salt</td>
<td>Do</td>
<td>967</td>
<td>5,39,100</td>
<td>2,77,900</td>
</tr>
<tr>
<td>Castor Oil</td>
<td>Do</td>
<td>2</td>
<td>1,025</td>
<td>475</td>
</tr>
</tbody>
</table>

From Canal to a Sewer

After independence, Tolly’s Canal has neither been restored, nor maintained. This has several socio-ecological implications. Water logging in the city’s roads and neighbourhoods is a common occurrence every monsoon. This is largely due to the failure of our age old sewerage system that has been neglected by the government. The situation is aggravated by the unregulated and unsustainable urban growth of Kolkata to her eastern side at the cost of her canals and wetlands. Several pumps are pressed into service after every spell of heavy rains but they fail to drain out water as the canals remain heavily silted resulting into tremendous water logging in several parts of the city.

Along with ecological costs, the social costs of the degradation of the Tolly’s Canal have been severe. Once the Adi Ganga was revitalised by William Tolly, a number of ghats grew up on the banks of the canal including Balaram Basu’s Ghat, Mukherjee’s Ghat, Hindu Mission Ghat, Kalighat, Ghatak Ghat, Prasannamayi’s Ghat, Rashbarir Ghat, Tarpan Ghat, Kudghat, Rathtala Ghat, etc. In 1862, Prankrishna Halder’s (influential elite of 19th century Bengal) mother established the burning ghat of Keoratala on its bank. The tract was a lively route and the locals are still nostalgic about how Bhatiali (boatman songs) was sung under the full moon sky providing an intense satiety to people living on its banks. But gradually since the 1960s the water route lost its vigour though it still continued to be a discharging outlet for the southern part of the city. The once navigable canal transformed into a mere nullah (drain) due to lack of restoration and maintenance.

Over a period of time, several “illegal” settlements grew up on both banks of the entire stretch of the Tolly’s Canal. The settlers were mostly from different areas of rural West Bengal who migrated to Kolkata thinking of the opportunities of work that the city would have provided. For 40 years the canal bank was occupied with people who were already victims of development from the countryside facing landlessness, alienation of land, poverty and flood (Seabrook 2002).

An eviction drive was carried on by the state to displace the population to make way for the metro rail project. The five-hour operation on 22 September 2001 cleared and evicted settlers from 2.5 km stretch along the canal. Around 700 policemen along with the Calcutta Metropolitan Development Authority and other agencies carried out the demolition drive. Around 400 hutments were demolished and 2000 people displaced (TOI 2001). During the second phase of the eviction on 25 February 2002, another 2.5 km from Kudghat was cleared in three to four days, followed by a third demolition drive of the remaining 6.5 km stretch (TOI 2002).

<table>
<thead>
<tr>
<th>Area</th>
<th>Families</th>
<th>Number of People</th>
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There were protests and demonstrations and even appeals before the judiciary for the preservation of the canal. Protests were of different kinds, forms and by different groups of people (urban middle class, environmental activists and grassroots’ organisations mobilising the victims) with similar yet different priorities. While for some the preservation of the Adi Ganga was the burning issue (the cause of ecology superseding over people), for others displacement without proper rehabilitation of the poor people residing across the canal banks was the key issue (the cause of people superseding over ecology). However none of the agendas met with success—pillars were dug into the bed of the heritage river for extension of Kolkata’s metro railway.

**Ecologically Subsidised--For How Long?**

Time and again there had been plans promises to turn Kolkata into Venice by reviving her inland water transport. But till date there is no such initiative. The Asian Development Bank (ADB) sponsored Kolkata Environment Improvement Project (KEIP) sought to restore Kolkata’s canal system and wetlands since it was launched in 2002 (KEIP 2006). However very little seemed to have happened on the ground.

Kolkata may be an “ecologically subsidized” city (Ghosh 1997); but the way we have ignored our ecosystems, especially water bodies, is making the “delta city” more vulnerable to environmental changes. The slaughter of Tolly’s Canal proves that in spite of pluralities in urban environmentalism(s), authoritative environmentalism perpetuated by the state often (though not always) gains support from the bourgeoisie transforming it into “bourgeoisie environmentalism” (Baviskar 2003; Bose 2013) In the neoliberal context (Brand and Thomas 2005) this turns out to be the dominant form of environmentalism driven by the logic of capital and with utter neglect to the functioning of ecosystems and social lives surrounding those. The small narrative on the transforming tale of the Adi Ganga, quite a forgotten entity by now, is but a tiny component of the bigger canvas of shifting development needs and interests within changing temporal contexts.

**References**


