

Reviving River System and Reimagining City: A Quest for Environmental Justice in Asansol

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'The river that everything drags is known as violent, but nobody calls violent the margins that arrest him.' - Bertolt Brecht

Prelude

In the face of environmental apathy and the impending threat of flooding, our mission in Asansol is clear and transpicuous: to lend a voice to the river, to its florae, to the entire populace, be it biotic or abiotic, that inhabit its banks.

On September 14, 2023, a team of nine individuals, including internal and external experts, gathered to trace the tributaries of the Garui River, close to Banwarilal Bhalotia College, and to comprehend the jeopardies associated with the river flow (Figure 1). Our purpose is to 'river-write' the perils of this river ecology incorporating a hybrid methodology of geo-tagged photo documentation, extensive field notes collection, and interviews with eyewitnesses to the 2021 flood. We listen to the stories of residents and business owners whose livelihoods were washed away in a matter of few hours. We witness the striking contrast between those who built above the street level and those who reside perilously close to these open drains.

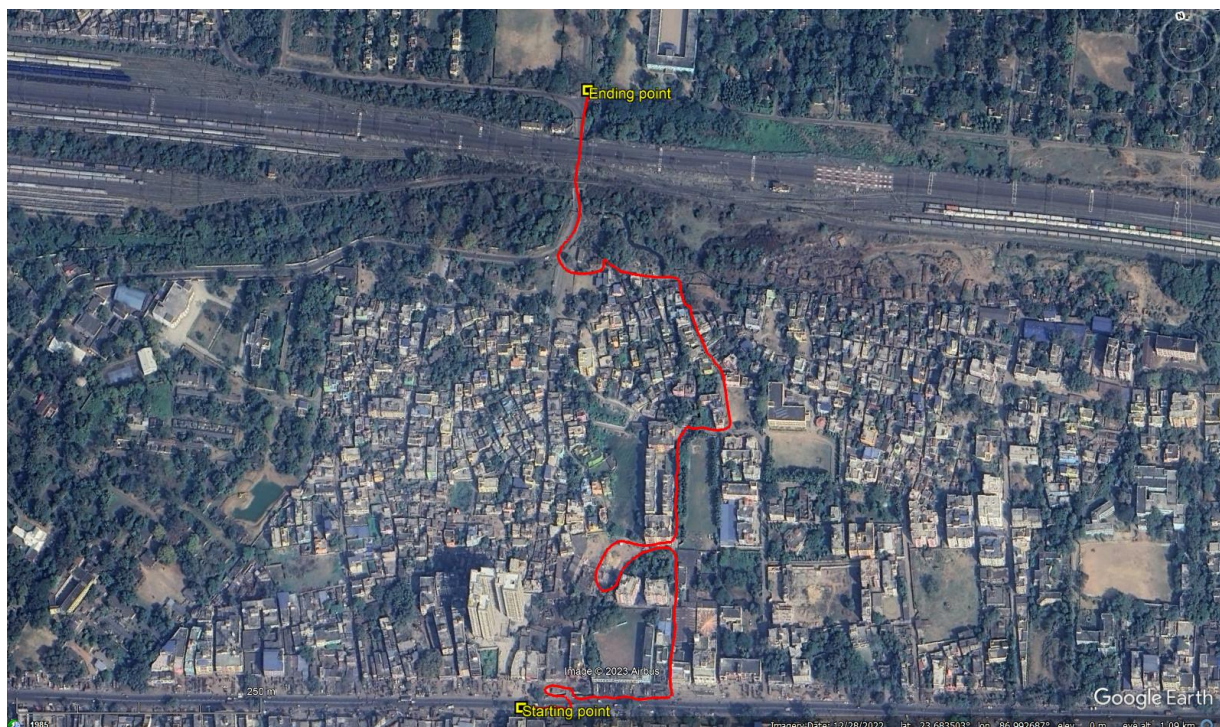


Figure 1: The surveyed path tracked by GPS device (Garmin Etrex 30)

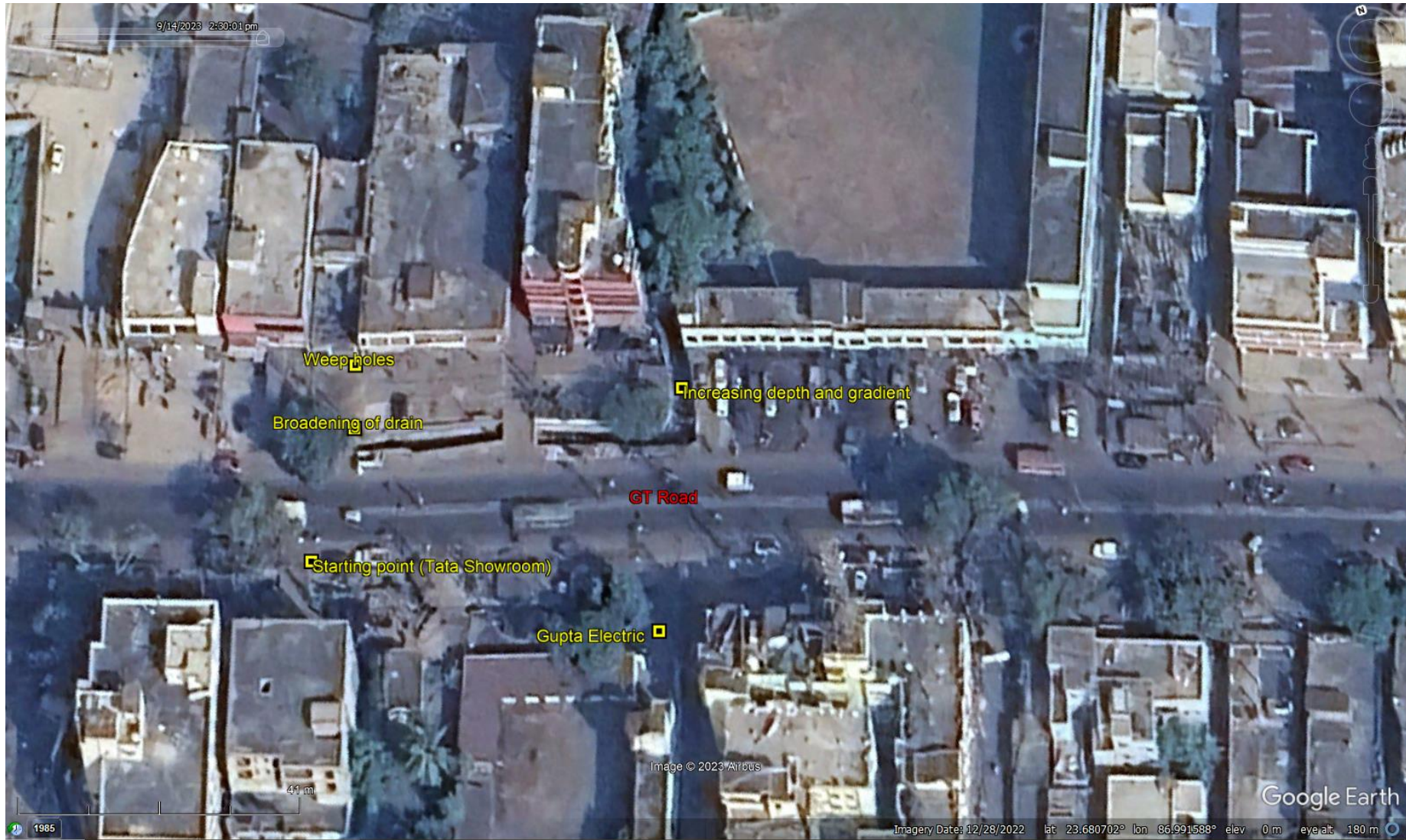


Figure 2: Survey initiation point followed by a respondent survey in an electric showroom (left flank of GT Road); presence of weep holes and drain broadening along with increasing depth and gradient (right flank of GT Road)

Preliminary Findings

The heartbreaking stories of devastation and despair we encountered during our mission are a stark reminder of the urgent need for action. As we listened to the shop owners (Gupta Electric), their voices echoed with a sense of helplessness. One of them shared a chilling account of how, in just two hours, in the dead of night, the entire inventory stored in their godown was engulfed by rising waters, as high as 1.5m, and was left to rot and ruin causing huge economic losses.

The impact of this flooding extended far and wide, with businesses near the four-wheeler car showroom and those along roads leading inward or southward being hit the hardest. Field measurements, using measuring tape (30 m) revealed that the width and the depth of the eastern main drain were around 3.4 m and 2.5m respectively (Figure 2). However, a glimmer of hope emerged from the businesses across the street. Restaurants and motor repair shops, strategically elevated above street level, defied the deluge. Their resilience lay in the natural slope guiding floodwaters northward, shielding them from the worst of the harm. Alongside that, the presence of weep holes aided in pressure pressure-releasing mechanism, thereby leading to reduced damage in this particular segment.

But as we ventured further down the road northward towards Domohony Rail Colony, we discovered a harsh reality. A lane alongside the tributary, originating at the Honda showroom on GT Road, revealed the vulnerability of these communities. We navigated through this path, capturing the unadorned reality through photographs and heartfelt conversations with locals. Respondents stated that during the 2021 flood, the height of the flood waters reached up to a height of 1-1.5 m in no less than three hours. However, they reported that the water receded the very next morning. This could probably be attributed to the natural slope of the region, which recorded a fall of around 5 m. What we found most distressing was that slum localities that relied on the tributary-turned-drain were the hardest-hit victims of the flooding (Figure 3).

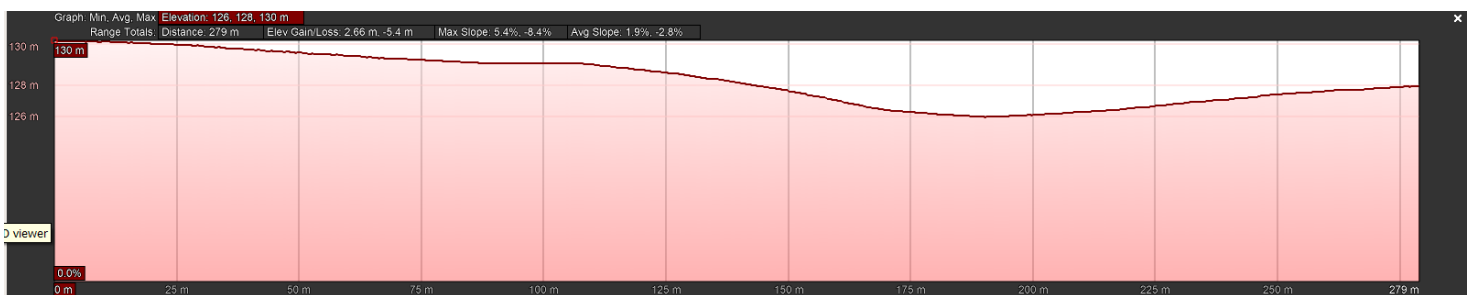


Figure 3: Elevation profile showing the natural gradient of the region and a depressed land leading to increased flood susceptibility



Figure 4: The survey continued where the river meandered across the natural landscape, leading to the culvert connecting old and new Asansol, and ending adjacent to the boundary of Kendriya Vidyalaya, Asansol.

These localities are predominantly inhabited by low-income families in shanties, living on the edge of a precipice (Figure 4). The risk of submersion looms over them, not only during heavy floods but also in everyday life, as the open drains remain unguarded. The lives of the most vulnerable, including innocent children, are hanging by a thread.

This project isn't just about blue or green infrastructure, be it academic or administrative, it's about rekindling the lost connection between locality and nature. In an age marked by ecological decline, we aim to embrace an all-inclusive and holistic approach.

Methodological Rethinking

In the Anthropocene era, where science often reigns supreme, we have the opportunity to reshape the narrative. This project dares to ask: What is the unexplored potential of art in all its forms—painting, photography, short film, illustration, sculpture, performance, music, installation art, and multimedia work? Can a song or a short film become the anthem of progressive action for our rivers? Can a sculpture be the voice that raises public awareness about the fragility of our ecosystems? Can a photograph awaken empathy for the naturescape, be it, animals, plants, and rivers? Can a painting ignite a global environmental movement? Can a theatre performance lead a community to mourn the loss of a local wetland?

Ecological Art and Habitat Restoration-Case from China

In Chengdu, China, the Living Water Garden, envisioned by the visionary American artist Betsy Damon, stands as a testament to what is possible. This 5.9-acre public park, born in 1998, is more than just a park; it's a lifeline.

It breathes life back into the Fu Nan River, purifying 50,000 gallons of contaminated water every day through the magic of constructed wetlands. Damon's creation is not just an oasis; it's a catalyst for environmental revival across China. Its impact is undeniable, having even been replicated in Beijing for the grand stage of the 2008 Olympics.

River Films-Case from the USA

Now, let's journey back in time to the birth of cinema in the early 1900s. The global film industry was finding its wings, yet nature often played second fiddle to the human-built world. Enter "Down the Hudson" (1903), a ground-breaking documentary by Frederick S. Armitage and A. E. Weed. This film, captured from a boat navigating the Hudson River, introduced audiences to the burgeoning world of human infrastructure and technology.

The innovations of "Down the Hudson" would reverberate through time, shaping the aesthetics of river documentaries in the 20th century. From Peter Hutton's mesmerizing "Study of a River" (1997) to Andrej Zdravic's poetic "Riverglass: A River Ballet in Four Seasons" (1997), the river became a canvas for artistic expression. These films remind us of the profound connection between humans and their environment, showcasing the evolving relationship between art and nature.

Māori People- Case from New Zealand

The Māori people's decades-long struggle for justice bore fruit in 2017 with the Te Awa Tupua, or Whanganui River Claims Settlement. This historic agreement recognizes the Whanganui River as a living entity with legal rights, protected by Indigenous guardians. In declaring the personhood of the Whanganui, the legislation acknowledges the physical and spiritual significance of the river for Māori people.

Perils of Cape Town- Case from South Africa

On the other side of the globe, the city of Cape Town paints a grim picture of what can happen when water's value is reduced to mere megaliters and kiloliters in the capitalist market system. In the pursuit of 'concrete' progress, the rivers that once weaved through the city are buried and made to flow underground, and with this out-of-sight arrangement, the very memory of not only the river but also those who toiled on its shores is forgotten. This urbanization and hard surfacing of the city have devastating consequences, causing flooding in the Cape Flats, where the descendants of the Khoena community reside. Water, trapped by asphalt and concrete, can no longer replenish the groundwater table, threatening an entire way of life.

The city's bulk water supply comes from the Berg and Breede River watersheds far outside of the city, along with several dams in the wider region. This is when Cape Town's springs disappear from the city's asset register. This transformation is a stark reminder that our cities' growth should not come at the cost of the environment.

The relentless march of megacities worldwide has brought about a planetary shift in our relationship with the Earth, marking the advent of the Anthropocene era. The very essence of our existence is intertwined with these sprawling urban landscapes.

In the 'values' statement of the City of Cape Town's Water and Sanitation division, we encounter a declaration that transcends borders: "Our customers are the reason for our existence. The environment is our silent customer, who shall receive an equal share of our services." These words resonate far beyond Cape Town, echoing in laws, statutes, and constitutional amendments around the world.

But here's the question that begs to be asked: When did we reduce citizens and nature to mere "customers"? In this paradigm, nature's value is often measured by its ability to "pay." But what about the parts of nature that can't "pay" in human terms? Are they not deserving of our protection and care?

Moreover, when did the provision of municipal water, a fundamental necessity, become a business with "customers"? Those who can afford to pay for piped water become customers with rights. Yet, communities like Sandvlei along the lower Kuils River in southeast Cape Town, relying on their boreholes, are not labeled as "customers." Their pleas for respite from the sewage effluent discharged into the river from the overwhelmed Zandvliet Waste Water Treatment Works fall on deaf ears.

Is it conceivable that a city can be designed without empathy, without considering the well-being of forest dwellers, farmers, farmlands, and local water sources? Such a city would inevitably be a place of scarcity, hunger, and thirst. We, as citizens, hold a collective responsibility to reshape our cities with compassion, ensuring that no one and nothing is left behind. It's time to reimagine our urban spaces, not just as centers of commerce but as sanctuaries for all life. Our duty to citizenship calls for a transformative redesign to protect our planet and its inhabitants.

And The Case Where It All Starts

In our quest to protect the environment, we must draw wisdom and inspiration from every available source, including the influential world of popular media. The recent web series 'Kalapani' has shaken us to the core with its profound question: to whom does our environment truly belong? Is it the rightful heritage of the communities that call it home, or can the privileged wield their influence to exploit and commodify this precious ecosystem under the guise of generating employment, government revenue, and bringing in 'development'?

In this age of financialized democracy, where the urban citizen's creed seems to be "I pay, therefore I am," we must pause and reflect. We must ask ourselves: can we ever truly repay nature for all the gifts she has bestowed upon us? In the context of our present reality, we are confronted with the urgent need to devise means, measures, methods, and techniques to breathe life back into the local river ecosystem of Asansol.

This project is not just a mere inquiry; it's a call to action. It challenges us to become stewards of our environment, to safeguard it from degradation, and to take responsibility for its protection, conservation, and revival. We can't merely take; we must give back, and in doing so, we will ensure that memory is preserved and protected through the revival of the river system and the creation of a blue archive (among a multitude of academic affairs and

thoughts) and that the legacy we leave for future generations is one of respect, reverence, and gratitude for the gift of nature.

Photo Gallery of the Survey





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Asansol
West Bengal
India

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Arya Kanya School Road, Ushagram, Asansol, West Bengal 713303, India

Asansol
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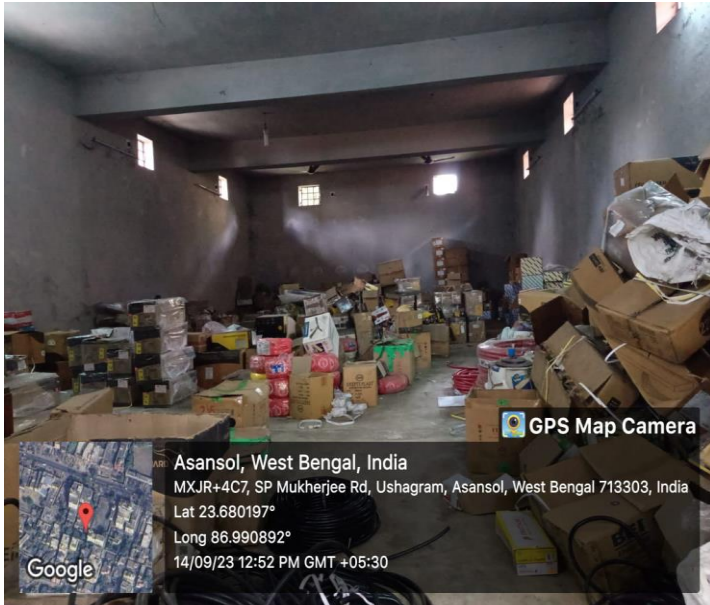
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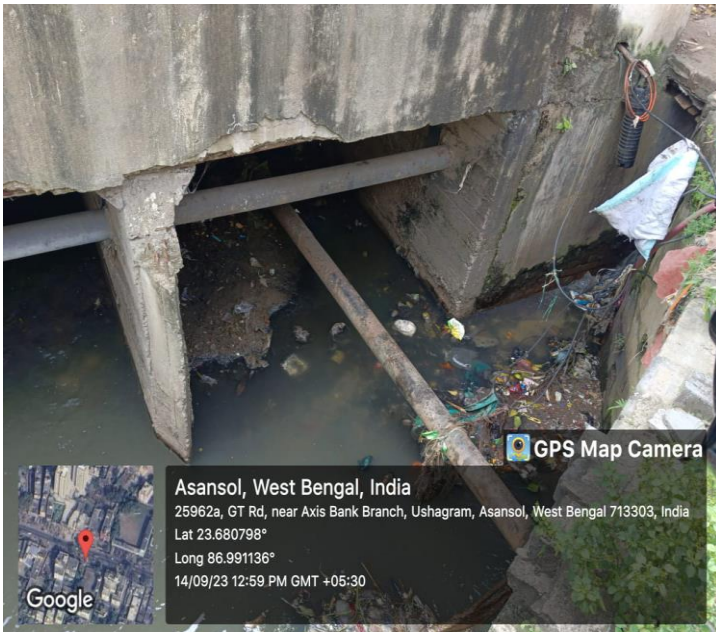
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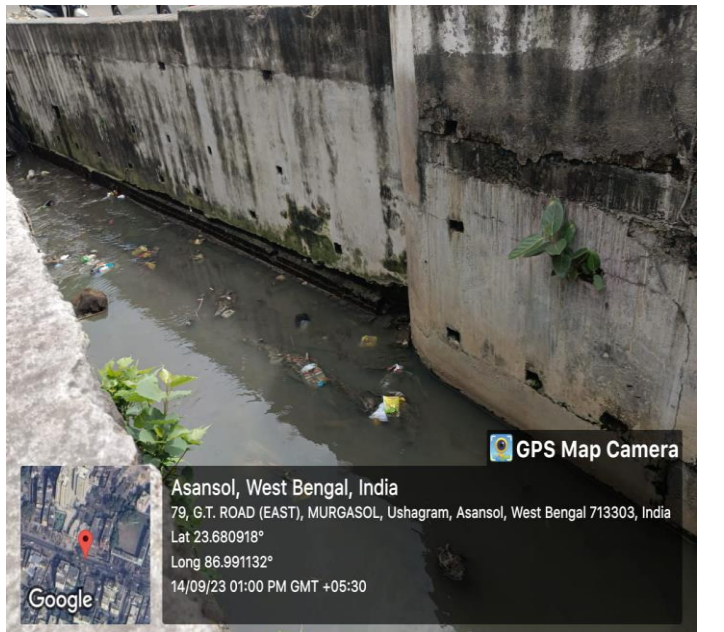
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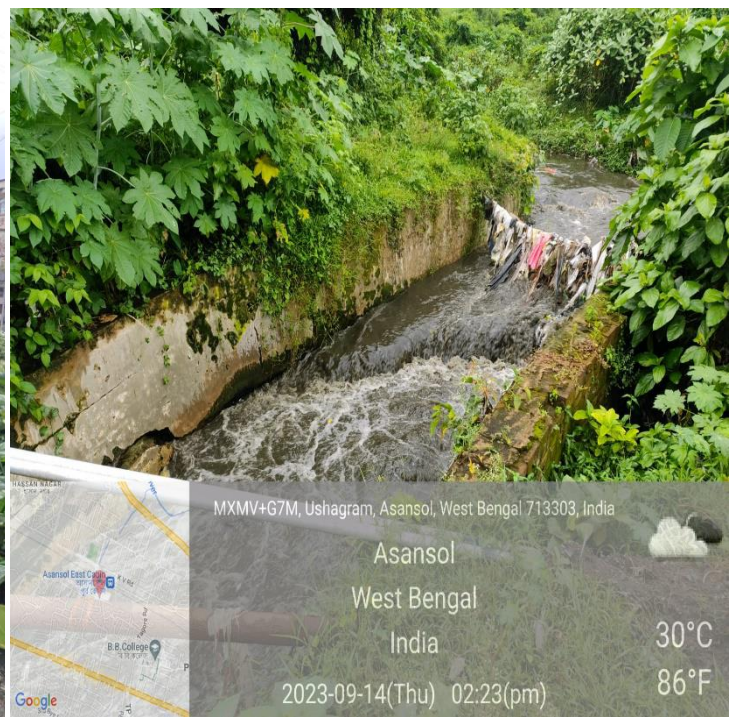
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GPS Map Camera

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