

Racing to restore

the YAMUNA memoir



Vinai Kumar Saxena
Lt. Governor, Delhi

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Foreword



Nature is an equaliser.

Regardless of the privileges the life offers and the positions we secure, the emotional connections to nature are equal among the people. And within the envelope of this consideration, human passion for the rivers is universal. Everyone of us holds an identity in respect of a river that we have seen, waded into, drank from and sat beside. For me, Yamuna has been that element of personal identity. Having been raised in the plains of northern India, Yamuna and its tributaries have always been close to my heart. But seeing it as one of the most polluted rivers in the world, pained me and disappointed me as I grew older.

During 2023 as the Lieutenant Governor of Delhi, I was entrusted with a brief opportunity by the National Green Tribunal (NGT) to directly serve the river as the Chairman of a High Level Committee (HLC), meant to restore cleanliness to Yamuna by reducing the stress of human abuse. I accepted this as a fortune of time and a mission of my life. With the help of dedicated colleagues and concerned organizations, we raced to restore Yamuna to its original glory. However, a restraint delivered by the Supreme Court within six months of this race, ended my steering of the official efforts abruptly.

'Racing to restore' is a memoir that expresses how an emotion towards a river turned into an accidental opportunity for a brief period of time.



My first tryst with Yamuna

Belonging to and growing up in the folklorish Doab of the Ganga and Yamuna, like most Indians, rivers shaped my life. It was around them that my life unknowingly revolved and again unknowingly, they became intrinsic to my life. It was at Karwi in Banda District of Uttar Pradesh, where my mother was posted as Principal of the Government Girls Inter-College, where the river Paishwani became intertwined with the life of a child that was me. Originating from the springs and waterfalls at Chitrakoot, Paishwani, also known as Mandakini, flows from Karwi to meet the Yamuna 34 kms away at Rajapur. Taking me along with herself, Paishwani made me have my first memorable tryst with the Yamuna. I was a school going child and met the Yamuna at Rajapur on her banks in district Banda - the place where Goswami Tulsi Das belonged. Visiting the temple, where he wrote the *Ramcharit Manas* on the banks of Yamuna, was my first exposure to this life-giving mother, who went on to shape me, only next to my biological mother.

*Taking me along with herself,
Paishwani made me have my first
memorable tryst with the Yamuna*

It used to be children's play, splashing around and swimming in the shallows. There wasn't a conscious effort at that age to understand a river or its significance to life. We couldn't have told if the river was pure or polluted, nor would we care for any of that.

The river pulled me towards itself.

With memories of the river having become a part and parcel of my young consciousness, I next encountered the Yamuna in Mathura, probably in 1970 or 1971 as an early teenager. My mother was then the Principal of a Women's Teacher Training College and the institution was housed in an old heritage building built over stone walls. The gate to the premises was so wide that we used to call it 'Elephant Gate', because our imaginary pachyderm used to walk through the gate in style. Right behind the building was Yamuna and whenever it flooded, the river almost skirted the wall. Otherwise, the river lay down the slope with its silver sands shining in the sun. I used to wade into the water and hold the river in the bowl of my palms. I used to swim and see through the water, the rippling sediments on the river floor. The water was so clean and enchanting that it was a difficult decision for me to come out of the

I used to wade into the water and hold the river in the bowl of my palms

stream and go back home. I had not seen many rivers nor had travelled far and wide at that age. And I could not escape feeling that the river Yamuna was the cleanest and prettiest of rivers in the world. Yes, it was.

All this while, as a child, frequently travelling to and staying with my paternal and maternal sides of the family at Allahabad (now Prayagraj), the exposure to Sangam additionally kept deepening the impact of rivers in my mind. The Sangam often made me wonder about the strong muddy brown currents meeting the relatively sluggish bluish currents of the Yamuna. My tryst with these strong muddy currents of the Ganga was to soon follow.

Our house in Fatehgarh in Farrukhabad District of UP, where my mother was posted as District Education Officer in the mid 70's, was not too far from the Ganga. It is here that I recall, we started understanding the river by its distinct scent or pristine flow. It became sheer instinct for us. Nobody stopped children from playing with the river and nobody stopped the adults from making the river part of their life by way of bathing in it or taking drinking water from it. No one ever accused the river of being impure. We drank the river from the bowl of our palms. We took home the river in bottles and cans. We believed in the water because it looked as innocent as our little lives were. We always fell in love with the river as we were all just a part of a system that was naturally inter-woven between man and nature. Life was just natural.

As much as the river was a common heritage of the town and its people, it was also a personal asset of each one of us. Not just because we drank from it, but because the river stirred emotions within the young minds. Whenever we sat on the bank and watched the water flow or whenever we threw a flat stone that hopped over the surface, the river became a personal sense of pleasure, experience and an indescribable connection. Was it a river of life OR whether the life was a river, I cannot tell. It was just a part of what we were.

As much as the river was a common heritage of the town and its people, it was also a personal asset of each one of us



Years later in the 1980s, I recall accompanying my elder brother to Delhi on his work-related visits. Delhi was tremendously big and very intimidating for a young man of inexperience. The huge buildings, concrete lanes, opulence, disparity between the haves and have nots and the awe-inspiring monuments created a wedge of awe in the mind. I needed a friend, a hand of assurance, some homeliness and acquaintance to feel better. But nothing of what I saw gave me that feeling of comfort. I did walk around looking for something that could help me feel at ease.

And there was a river on the eastern rim of the city. It was the same Yamuna, but there was something different about it. I walked over a long distance one day to the bank of the river near ITO and sat on the banks to relive the pleasure and comfort of the river of my home that I was used to. I let my feet dig into the water.

And there was a river on the eastern rim of the city. It was the same Yamuna, but there was something different about it

It did not take long for me to realise that Yamuna was not the water flow that my mind knew of a river as a part of life. The scent was not what I happily knew. The colour was not what the eyes knew as a soothing sight. I did not have any scientific information, nor had I read about the river of life in Delhi, but I knew that the river was not as clean as I had seen it earlier in Banda and Mathura. I remember that day vividly because I did not find a friend that I so badly wanted in a city that I did not know. My last hope of finding an acquaintance had just evaporated.

I had just discovered that there are two types of rivers on the planet - one which gives life and sustains us. The other, whose life we take away

I returned disappointed. I wanted this Yamuna too, to be a life-giving flow which was what I had believed, all rivers to be. I had no wherewithal or idea to make the river better and a part of the person I was. But I had just discovered that there are two types of rivers on the planet - one which gives life and sustains us. The other, whose life we take away.

The elixir of life

Entrenched with the civilization sustaining majesty of rivers, life's journey was to further take me to a domain where water, the life sustaining element that we take for granted was so scarce that it had the status of elixir. In my first job at Gotan in Nagaur District of Rajasthan in 1984, a river-bathing youth like me was confronted with the situation, where locals would bathe once a week due to paucity of water. Meagre seasonal rains would get washed away in the dry terrain, leaving no trace behind.

This scarcity of water and the resultant helplessness of people bothered me. It touched my core.

This scarcity of water and the resultant helplessness of people bothered me

Having seen people splurging on the waters of the mighty Ganga and Yamuna, it was the first time that the necessity of conserving water crossed my mind - something that was to stay with me throughout thereafter.

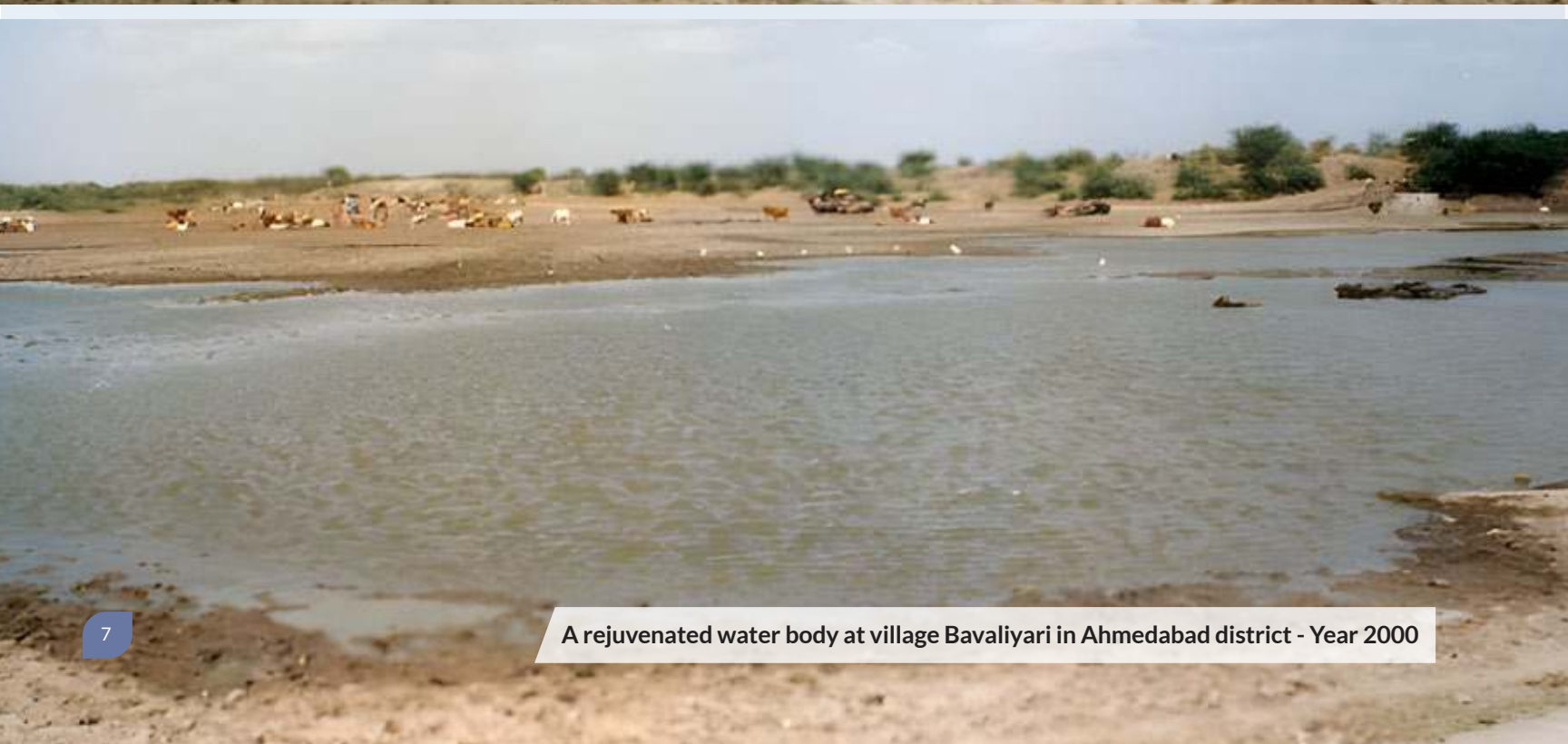
With the help and involvement of the villagers, I took upon the task of reviving/constructing a pond that was to become reservoir that captured rain water and provided succour to the inhabitants around it during dry months.

The journey was to continue and my experience with water thereafter was to shape my entire being. From Rajasthan, I went to work in the Bhal area of Gujarat for the development of a Greenfield Port Project at Dholera in 1995. Bhal, during much of the closing decade of the last century, was one of the driest regions in the Indian sub-continent.

Travelling from Ahmedabad where I was stationed, to the project site for surveys with Dutch Consultant for the Port, one was astounded by the sight of thousands of women lining the roads with an empty bucket or an earthen pot. They were waiting for tanker trucks carrying water to fill up their meagre bucket or pot so that life could go on. Heart-rending scenes and stories of human helplessness abound, I was to witness dried up ponds where, in the remaining putrid water, animals and humans



Pond deepening work in one of the 13 villages initiated by NCCL, an organisation started by me, in Bhal region to overcome acute water crisis, June 2000



A rejuvenated water body at village Bavaliyari in Ahmedabad district - Year 2000

would bathe together. The same water would be used for washing clothes and utensils and also carried home for cooking and drinking purposes. At a tea shop, where we would generally stop for a break, enroute the site of the port, on the Gulf of Cambay, we were once faced with unusual delay in serving of the tea by the shop owner. As was my wont, while my colleagues waited, I went for a walk around the area and witnessed a person filling a drum placed on a hand-pushed *thela*, with water from a dirty puddle under a culvert.

I went for a walk around the area and witnessed a person filling a drum placed on a hand-pushed thela, with water from a dirty puddle under a culvert

When I reached back at the shop, lo and behold, the same drum on the *thela* was present there, with tea being made from the water carried from the puddle. While our affronted sensibilities made us pose several questions to the tea shop owner, he nonchalantly informed us that we had been drinking tea made with the same water all along.

Such experiences once again pushed me into the task of reviving and creating water bodies for conservation of rain water. With the help and involvement of villagers, who provided *shramdan*, we were able to revive/construct ponds in 13 villages in the Bhal region of Gujarat during 1999-2000. Two to three meters silt was removed from the ponds which helped store enough rain water for the entire year. We also supplied free water in remote villages of this region every year since 2001 till 2005.

In the meanwhile, efforts underway since as early as the 1960s to bring the waters of the Narmada to these parched regions, were being sabotaged and stalled successfully by an international agenda-driven, anti-India clique, whose most visible face was the high and mighty Medha Patkar.

The then Chief Minister of Gujarat was committed to ensuring “हर गाँव पानी” - water to every village

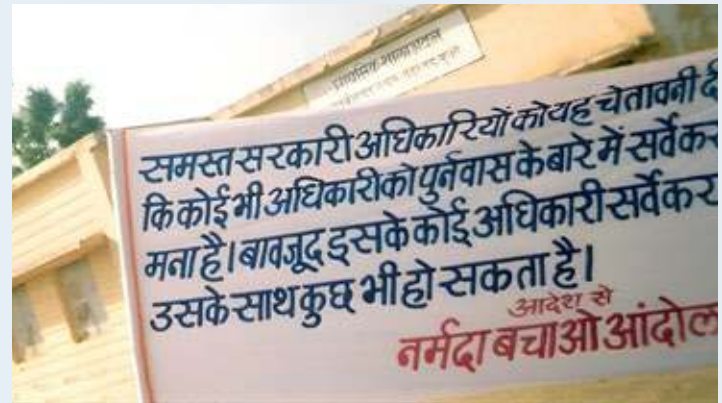
An initiative that should have been welcomed and facilitated by all, was held ransom to the uninformed, unjustified and unreasonable demands of a lobby that had christened itself as the Narmada Bachao Andolan-NBA (नर्मदा बचाओ आन्दोलन) and its most visible face was Medha Patkar.

After the Ganga and the Yamuna, this was my tryst with the Narmada - the mother nurturing much of Madhya Pradesh - Malwa and now Gujarat. While efforts were being made to bring this life-giving elixir called Narmada to the perpetually barren and thirsty landscape housing crores, there was a sinister conspiratorial design being played out to stall it. This angered me. It made me feel helpless and spurred me into doing something.

Through my civil society initiative, National Council for Civil Liberties (NCCL), I strove to expose the farce being run in the name of Narmada Bachao Andolan. In my extensive interaction with hapless people, I had realised that to them getting water was what meant the most. They were neither opposed to the Dam nor were they in any way dissatisfied with the government's efforts at rehabilitation.



Pictures: Diktat issued by NBA activists against the government officials to stop rehabilitation works in different villages along Narmada Valley in Madhya Pradesh



Pictures: Diktat issued by NBA activists against the government officials to stop rehabilitation works in different villages along Narmada Valley in Madhya Pradesh

Dissent was being artificially manufactured, mostly by coercion on part of the NBA, which was, I wouldn't hesitate in saying, adopting extra constitutional 'Naxal' means to threaten people and brow-beating government officials. In addition to this, the 'manufactured dissent' against the project, was being played up in the national and international media, to arm-twist the government on one hand and getting foreign support for the agitation on the other.

It was way back in 1999 that I took the decision of taking on the face of this conspiracy, Medha Patkar, and wrote a letter to her, detailing the problems being faced by the people and asking her to cease from her deviant means. It was a proverbial "David v/s Goliath" situation. As expected, my letter went unanswered and thereafter I took her head-on. I exposed her activities which were aimed solely at stalling progress at the behest of disruptive forces which were opposed to prosperity coming to India. The fight continued. The exposes carried out lay bare her designs and progressively weakened the so-called 'Andolan', by breaking its back. People who were supporting her, gradually turned against her and the game that she was playing. I must say that these endeavours got bi-partisan support.



Left: All party Dharna at Gandhi Ashram, Ahmedabad against NBA for stalling the construction of Narmada Dam
Right: Addressing the sit-in protest which was attended by all political parties, religious leaders and NGOs

What followed was the time that witnessed the Prime Minister, Shri Narendra Modi, who became the Chief Minister of Gujarat in 2002, striving for bringing about a life-changing transformation into the lives of millions in this area, by bringing the Narmada to them. The then Chief Minister was committed to ensuring “हर गाँव पानी”- water to every village and this epochal and transformative step forever changed the lives of millions, for better, in the days to come.

Looking back, I can say with some satisfaction that when the waters of Narmada came gushing into Gujarat and other areas, I had a miniscule hand in making them flow.

During this time, I would often travel to Delhi for various work related issues, only to read reports and hear from friends during the first decade of the current century that the Yamuna in the city was getting polluted by the day.



Back to Delhi

In the years to come, I spent more of my time on the banks of Sabarmati in Ahmedabad and took up a number of voluntary activities to maintain the river as clean and life giving, as possible. Sabarmati was witness to towering patriots of historical significance and it always inspired me. I took part in every initiative of the people's groups and the Government in providing Sabarmati its deserving dignity. It was a small river, no doubt, in comparison to Yamuna, but a river is a river and water is precious. Thus I thought. I did everything I could, in providing a helping hand to sustain the historical glory of the river flowing through the heart of Ahmedabad.

On 27th October 2015, I was appointed as the Chairman of the prestigious Government of India body, Khadi and Village Industries Commission (KVIC), and that brought me officially to Delhi, although the KVIC is headquartered in Mumbai. In my office at the Rajghat Complex on the banks of the Yamuna, I once again got an opportunity to go closer to the river. On many occasions, I would walk on its banks and observed the river from close proximity. I casually engaged with some experts and concerned people about the health of Yamuna and its significance to Delhi in the past, present and future. Living for long periods of time in Delhi helped me understand the river better. And an inexplicable sense of history about the river and it being a nature's gift to the people of Delhi, sat rooted in my mind.

I began understanding how the Yamuna sustained a civilization in Delhi. I engaged some scholarly friends in discussion. I realised that although the river and its life-giving character are explained in some detail in the mythical documents, the historical descriptions are rather recent.



I wouldn't want to provide any historical details of Yamuna here but I want to mention that the historical descriptions I read and heard, made me realise that the presence of Yamuna on this geography was vital for the civilizations to prosper in and around Delhi. In fact, the Salimgrah Fort was built by Sher Shah Suri's son Salim Shah in the year 1546 on a riverine island of Yamuna. And over a hundred years later in 1648, Shah Jahan built the Red Fort on the west bank of the river. There are paintings in the 'Reminiscences of Imperial Delhi' that show the glimpses of the river during the Mughal period. Improvements to the landscape and structures along the river occurred until the period of Bahadur Shah Zafar.

Throughout the centuries of Mughal rule, Yamuna was an inseparable part of Delhi – its physical security, water security and food security. Orchards along the bank, fortifications, water points, navigation, included the river in the daily life of the capital in an intensely dependable manner. The river was internalised by the civilization unlike in the 20th and 21st centuries, where the river began looking like a polluted stream kept away at the margin of the capital. The river was so inclusive that Shah Jahan built 14 gates to the river including a water gate. Many of them are long gone. It is also said that Shah Jahan first entered the Red Fort upon its completion, through the water gate Khizri Darwaza, which still exists, to a grand Jashn-e-Mahtabi.

I recalled this in my mind, several times, during my first few years in Delhi to soak myself in a sense of history and heritage about the river that we had wasted and abused. The medieval Shahjahanabad that was built around the river was a model of complete dependence on the river. In other words, it was a model of a river sustaining a civilization around it. For water, the city was dependent on Ali Mardan canal and more than 600 wells within its walls. The harmony of communities and the prosperity of people depended upon an assured clean resource called a river. In fact, that's the baseline model we should always keep in mind – a model of human dependence on the river and human respect to the river. It was this model at play, even when the Coronation Park area was originally selected for establishing New Delhi.

It was in consonance with the trend of each subsequent capital moving towards the North. However, the flooding in the Yamuna in 1911, that inundated the Coronation Park,

Our ignorance, greed and apathy turned into abuse and a weapon of self-destruction. They say – we reap what we sow. And we did sow disrespect to the river

Kingsway Camp, Civil Lines and present day Model Town areas, made the plan of development shift towards Raisina Hills. When I looked deep down into this fact, it came clear that the wisdom not to occupy the flood plains was an important one, which we abandoned over the coming decades. Our ignorance, greed and apathy turned into abuse and a weapon of self-destruction. They say – we reap what we sow. And we did sow disrespect to the river. It all started in the mid 19th century. Modern Sewerage system of that time allowed sewer to flow in the river directly. This colonial design continued for long and took a heavy toll.

Yamuna flooding in Delhi , July 2023

An opportunity beckoned

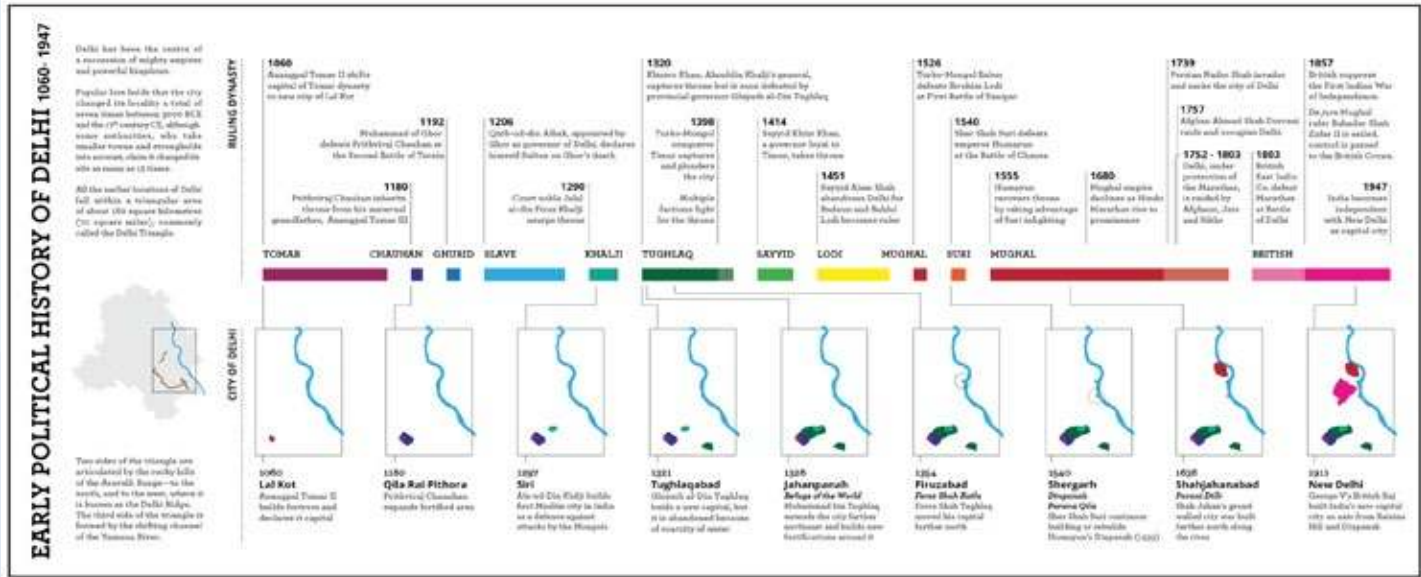
On 23rd May 2022, I was appointed the Lieutenant Governor of the National Capital Territory of Delhi (NCTD) and took oath of office on 26th May, 2022. As it came, I took it more as an opportunity than an appointment. I looked at it this way – that the City State was the historic capital of a civilization for centuries and its integrity has to be bigger than the transient arrangements of governance or its association with the lives of individual leaders. Not just my thought – it was actually the fact. And so, I immediately realised that my role is that of a custodian. And a custodian is someone who would strive to deliver a system to the future generations, keeping the sanctity, integrity and usefulness of the system as intact and intricate as they have existed in a long time.

Among many things, I realised that I need to deliver a clean river to Delhi. It was an unwritten mandate at that time, but a conscience driven and intuitive responsibility.



The Road Ahead

The growth of the Delhi started between the River and the Aravali Ranges. Seven cities of Delhi flourished here- from the oldest city, Indraprastha, dating to the Mahabharata era (circa 1450 BC), to the great Mughal city of Shahjahanabad (1638-1649), all were set with the Yamuna and other water bodies as their backdrop.



Yamuna weighed heavily on my mind while I contemplated strategies for the development of Delhi. I knew one thing for sure. The Yamuna in Delhi, unlike that in Mathura and Agra today, was not carrying pollution from upstream of Delhi. It entered Delhi clean and picked up a predominant bulk of pollutants from the city. Visiting the Qutabgarh village that KVIC had adopted, I had also come across a stinking water body that was identified for me as the Najafgarh Nala. I was aware of the fact that this Najafgarh Nala carrying millions of cusec of dirt, silt and sewerage on its 57 kms course in the city, enters the Yamuna largely unhindered, depositing its effluent directly into the river.



On 4th June 2022, just days after taking over as Lieutenant Governor, I almost startled my officers by deciding to personally visit the entire 57 kms stretch of the Najafgarh Nala from its source at Najafgarh Jheel bordering Gurgaon in Haryana to its mouth at the Wazirabad Barrage in North Delhi. While this visit reaffirmed my views about, the Nala being the single biggest polluter of the Yamuna, for the officers accompanying me, it was an unpleasant eye opener.

It was during this visit that I came to the conclusion that any attempt at cleaning the Yamuna will have to begin with cleaning the Najafgarh Nala. If people's life was intertwined with the river, then there are many aspects of their lives linked to the river as well and restoration of the river to its past glory would surely bring back the harmony between people and nature.

I came to the conclusion that any attempt at cleaning the Yamuna will have to begin with cleaning the Najafgarh Nala

Restoring Najafgarh Drain into Sahibi River

What was once the Sahibi River – a tributary of the Yamuna, had over decades converted into a stinking urban trunk drain. Physical inspection of the entire stretch had brought me face to face with untreated sub-drains and sewerage flowing directly into the Drain. Animal carcasses disposed at will and two huge berms of silt - equal to the volume of the infamous Ghazipur mountain of garbage, critically disrupted the flow of water in the Drain. What was once, a tributary river of the Yamuna, as I was told had turned into a stinking, gas-emitting, marsh of putrid waste water. I decided upon cleaning it, then and there.

A city and government machinery that had become used to the Drain in its putrid form over decades, resisted. I was told straight on my face that what I was envisaging was impractical and not possible. However, I persevered against this status quoism.

At first, I set out enlisting a dedicated group of officers,

And cleaning of the river and restoring Yamuna to the level of its glorious past required such an enormous team work

who believed in the transformation being envisaged and eventually, roped in a number of other experts and professionals into the task. We sat down spreading a map of the tributary drainage system of the river to understand the nuances and the influences. There is no dearth of literature and expert reports on Yamuna, but as a decision maker, it was critical for me to undertake this exercise for building strategies that are optimal. But more than all, it requires unwavering commitment of the leadership and the cooperation of the stakeholders to execute tasks of perspective nature. And cleaning of the river and restoring Yamuna to the level of its glorious past required such an enormous team work. And I was indeed getting hopeful that such an opportunity was waiting at the door.

My initial instinct about what affected the Yamuna from within Delhi intact, I spent a couple of evenings, re-understanding the dynamics of the river.

DISTT. SONEPAT

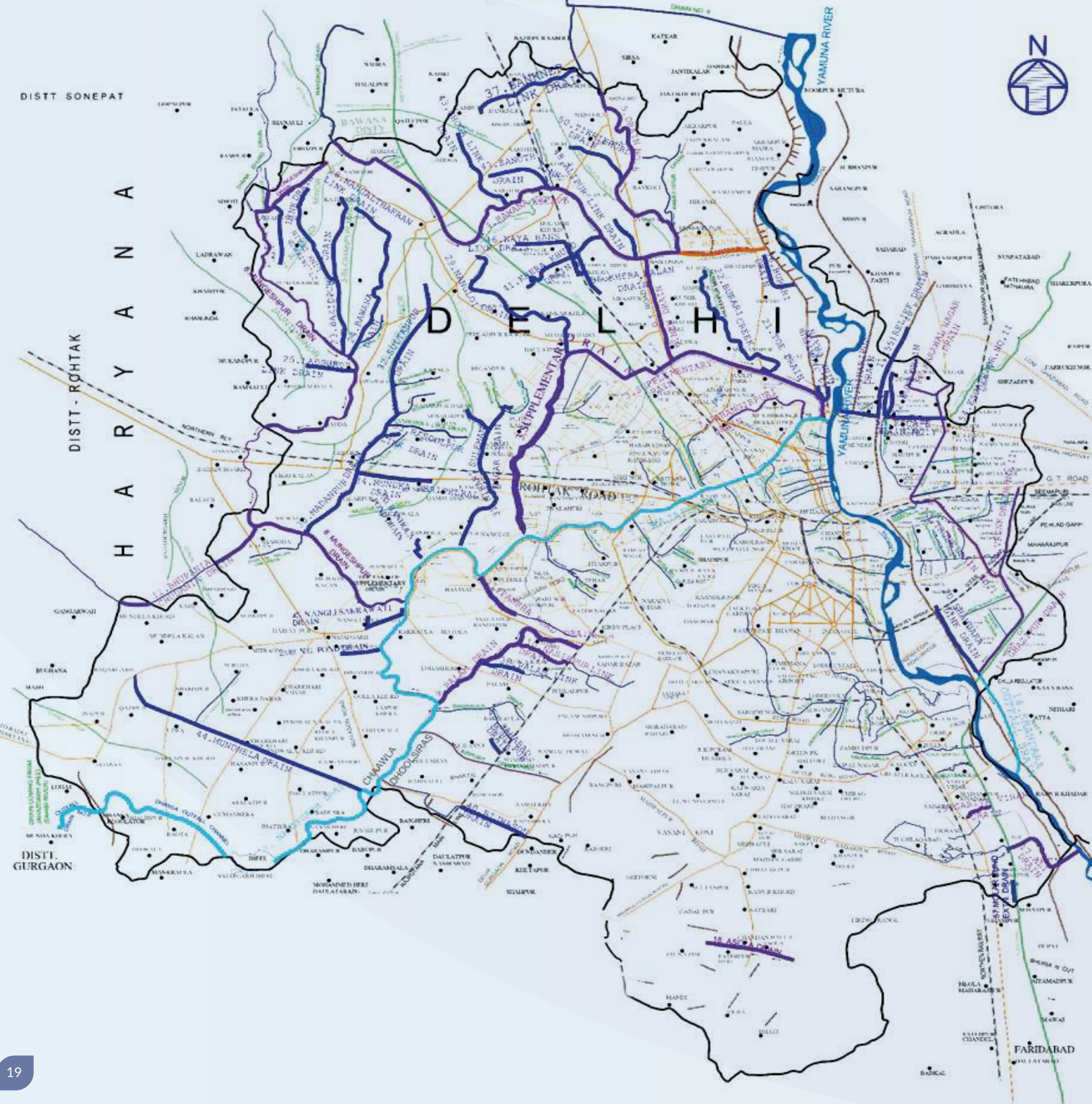


DISTT. ROHTAK

H A R Y A N A

D E L H I

DISTT. GURGAON



I must recall at this stage that the post-Independence, Delhi just had a little over 1 million people, which soon swelled to 2 million in the 1950s, due to influx of partition refugees and by 2022, we were a megapolis of over 20 million people, driven by the City's affluence beyond the 1990s. Although in the recent decades the growth rate of Delhi population has reduced, the 1990s had a growth rate of over 40 per cent, mainly due to the economic immigration into the city. The unabated urban sprawl due to uncontrolled magnitude of habitation, resulted in enormous production of urban wastes, sewage and wastewater. The numbers are often mind boggling. Just prior to my assuming office, the outfall of sewage, mostly untreated, was about 744 MGD against 930 MGD of water supply in the city. A plain and straight forward description of this meant that 80 per cent of the water supply in Delhi, turned into sewage and much of it drained directly into the river. In general, I was appalled that about 85 per cent of the pollution of the river in the city is due to domestic sources. And along the 44 kms of flow of Yamuna in the capital, there are 18 drains that bring in the wastewater, making Yamuna perhaps the most polluted urban river stretch anywhere in the world.

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Najafgarh Drain at Bharat Nagar (November 2022)

The mega-mission of cleaning the Najafgarh Drain

My thoughts came back to the Najafgarh Nala - the Sahibi River that has historically flown from Rajasthan and debouched into the river Yamuna in Delhi. Being perpendicular to the flow of Yamuna, Sahibi has in the past promoted colonisation along its banks and for hundreds of years, people have used Sahibi for their water needs of both intake and outfall. And it does not need any further explanation that in

In the past 30 years, the Sahibi River has turned into Najafgarh Drain or Najafgarh Nala, in the process, becoming the main conduit of Delhi's wastewater in the river Yamuna

the past 50 years, especially in the last 30 years, the Sahibi River has turned into Najafgarh Drain or Najafgarh Nala, in the process, becoming the main conduit of Delhi's wastewater in the river Yamuna.



Cleaning operations underway in Najafgarh Drain, July 2022

As I walked along the Najafgarh Drain, I instantly knew that the key to restore sanctity of the river Yamuna is in reverting the life extinguishing Najafgarh Drain to life giving Sahibi River. The task was daunting – there were 132 untreated drains falling into the 57 kms stretch of Najafgarh Drain. And most of them were closer to the point of intersection between the drain and the river, giving very little resident time for the pollutants before they reached the river, if at all there was any possibility of them breaking down.

The Najafgarh Nala was Delhi's major undoing and an ancient river's modern nemesis. Soon after my first visit to Najafgarh Drain, we discussed strategies for restoring Sahibi River and cleaning the flow of the drain to Yamuna, and had them going. Based on my experience of dredging and de-silting at the Dholera Port in Gujarat, we decided that Partial Gravitational De-silting is the best and most cost-effective methodology to apply to the drain, apart from taking up the de-silting of two large underwater berms that had obstructed the flow.

On 13th August 2022, as the Irrigation Department began on a trial basis Partial Gravitational De-silting, I took my first boat trip into the stinking Nazafgarh Drain, probably the first by any Lieutenant Governor.

That trip was an eye opener, as much as we had to cover the nose from the stench. The

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water was so murky that the transparency was not even a centimetre. All along the banks, there were outfalls pouring untreated sewage into the drain. More than all, people lived along the Drain, exposed to deadly fumes, unbearable odour and squalid conditions. Even those that built regular homes along the bank were not exempt from possible deadly diseases.



Najafgarh Drain as on 17.12.2022 at Bharat Nagar



On 31.12.2022, the then NGT Chairperson, Mr. Justice A.K. Goel inspected the cleaning and rejuvenation efforts being undertaken at the Najafgarh Drain on Bharat Nagar- Timarpur stretch

We decided to clean the banks over a stretch of 45 kms. In the year that followed, we disposed over 5,000 MT of Municipal Solid Waste (MSW) that had accumulated, on the banks, de-silted approximately 10 lakh cubic meters of sediments in the drain, established 7 monitoring centres and trapped 75 sub-drains for treating the water flowing from it into the main drain, in a very short span. In the process, we used several contraptions of Partial Gravitational De-silting. Floating boom and mechanical conveyor belt system for catching and disposing of floating MSW were deployed. Accumulated water hyacinth that obstructed the flow were chopped in-situ and disposed. Between 4th June 2022 and 20th May 2023, I undertook 13 visits to Najafgarh Drain, which included sight monitoring, promotion of new technologies, review of progress and strategy meetings. On 31st December 2022, in an encouraging move, Mr. Justice AK Goel, the then Chairman of National Green Tribunal (NGT) accompanied me to Najafgarh Nala and witnessed the impact of cleaning the drain on a war-footing.

On 31st December 2022, in an encouraging move, Mr. Justice AK Goel, the then Chairman of National Green Tribunal (NGT) accompanied me to Najafgarh Nala and witnessed the impact of cleaning the drain on a war-footing

Thereafter came a decision that

put me at the very helm of cleaning the Yamuna. The NGT, on 9th January 2023, constituted a “High Level Committee for Rejuvenation and Restoration of the Yamuna” and requested me to chair it.

This was a huge burden of expectations on my shoulders, since the NGT, while passing its order, had observed *“It does appear that the situation to a great extent remains unsatisfactory, in violation of judgment of the Hon’ble Supreme Court and orders of this Tribunal, fixing rigid timelines which are being defied at whims, without accountability and without visible improvement in ground situation. Thus, effective execution regime appears to be necessary with involvement of top most administrative authorities with flexibility of procedures for award of works for execution of pollution prevention projects.”*

*“In the light of above discussion, we constitute High Level Committee (HLC) of concerned authorities in Delhi where pollution of Yamuna is higher (about 75 per cent), compared to other river basin States. **We request the Lieutenant Governor, Delhi, who is Chairman DDA and Administrator of Delhi under Article 239 of the Constitution, to head the Committee.”***

I was tasked with achieving what could not be achieved during the last 28 years, despite the Apex Court and the NGT themselves monitoring the works and thousands of crores being spent.

To my limited understanding, the NGT in its wisdom had decided to constitute this HLC and requested me to chair it, owing to the fact that the greatest factor marring the rejuvenation of Yamuna despite extensive plans and efforts, was a near total absence of ownership and the resultant accountability of these efforts. The stakeholders in this task involved the Delhi Development Authority (DDA), Central Pollution Control Board (CPCB) and the Central Water Commission (CWC) under the Government of India, the Delhi Pollution Control Committee (DPCC), Delhi Jal Board (DJB), Department of Irrigation & Flood Control (I&FC) under the Government of National Capital Territory of Delhi (GNCTD), the Municipal Corporation of Delhi (MCD) and New Delhi Municipal Council (NDMC) - that are Urban Local Bodies and the Governments of Haryana and Uttar Pradesh. As the non-political constitutional representative of the President of India, the Lieutenant Governor of Delhi is not only the constitutional head of the Union Territory of Delhi, but also the Administrator of the Union Territory and its local bodies. It would have weighed on the minds of the NGT, that while this constitutional role assigned to the Lieutenant Governor, made him the best suited office to ensure seamless inter and intra departmental coordination, the non-political nature of the office also provided it with the necessary non-partisanship to effect inter and intra government coordination, be it between the three State Governments involved or with respect to the Government of India.

This order also provided me an authority and opportunity to take ownership of the task to rejuvenate the river

Be that as it may, this order also provided me an authority and opportunity to take ownership of the task to rejuvenate the Yamuna. An ownership that had lacked for almost three decades due to

multiplicity of authorities involved in the rejuvenation efforts. What followed was a series of five meetings of the High Level Committee on a monthly basis, till the Supreme Court stayed the order of the NGT designating me as the Chairman of the HLC. Thereafter the meetings are being chaired by the Chief Secretary.



A unique Partial Gravitational De-silting process started in Najafgarh Drain in August 2022



Cleaning of Najafgarh Drain at Chhawla on June 2023



Inspection of Najafgarh Jheel as in May 2023



A unique Drain BOD reducing technique at Signature Bridge in April 2023



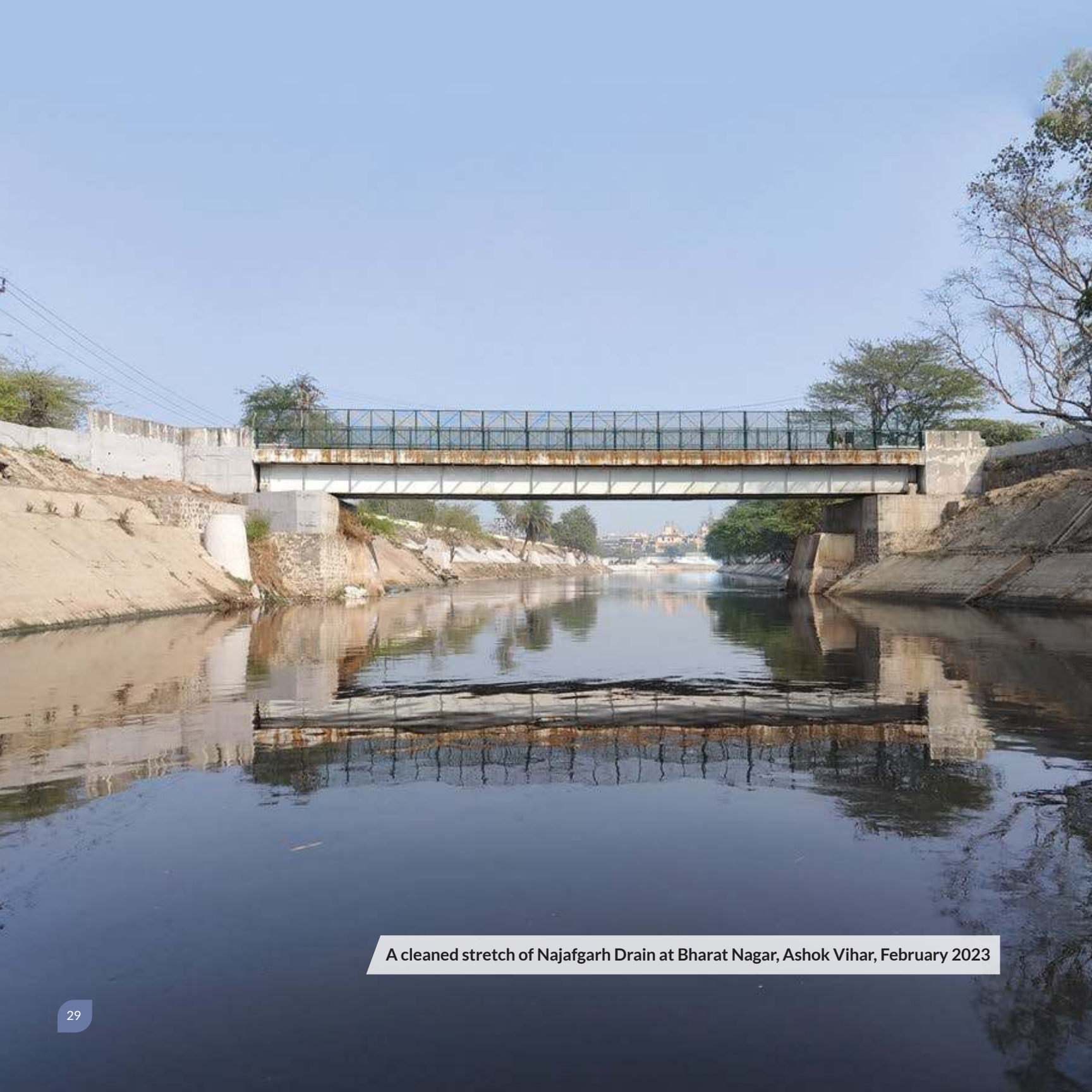
Aerators installed for enhancing oxidation of water at the point of Wazirabad Supplementary Drain meeting Yamuna, April 2023



In operation: Mechanized Hyacinth cutter boat and conveyor belt for disposal and removal of Hyacinth on Najafgarh Drain at Najafgarh, May 2023



Cleaning of TD1 Drain, Gurugram, at Najafgarh Jheel using aerators for oxidation, with the support of Haryana Government, May 2023



A cleaned stretch of Najafgarh Drain at Bharat Nagar, Ashok Vihar, February 2023

The HLC had taken up the task in a structured, time-bound and quantifiable result-oriented manner by ensuring seamless coordination between stakeholders as diverse as the Government of India, Government of Delhi, Government of Haryana and the Government of Uttar Pradesh, apart from the judiciary itself. Tasks began in the right earnest on the following identified monitorable parameters:

1. Enhancement of Sewage Treatment Capacity in Delhi & augmentation/rehabilitation of STPs that included construction of 40 new De-centralized STPs at different locations, progress in rehabilitation of 3 existing STPs at Kondli, Rithala and Yamuna Vihar, design upgradation of 18 existing STPs;
2. Tapping of Drains and Treatment of Sewage in 44 Sub-drains that fall into the Najafgarh Drain, 30 sub-drains that fall into the supplementary drain and 2 sub-drains that fall into the Shahdara Drain;
3. Extension of Sewage Network in all 1799 unauthorized colonies from the existing 747 and connection of drains/drainage system of 639 JJ clusters with sewerage network;
4. Upgradation of 13 CETPs for treatment and management of industrial effluent;
5. Effective Septage (faecal sludge) Management and eventually eliminating the system of septic tanks by connecting 8 lakh users to the sewage network;
6. Restoration and rejuvenation of floodplains of the Yamuna;
7. Action plan for utilization of treated waste water and;
8. Ensuring minimum required environmental flow (e-flow) in the Yamuna by the means of inter-state coordination.

These efforts, over about 05 months, slowly but steadily and surely started bearing fruits. Though not satisfactory, year on year data with regards to several parameters like BOD (Biochemical Oxygen Demand) and COD (Chemical Oxygen Demand) etc. started showing improvement in baby steps.

These efforts, over about 05 months, slowly but steadily and surely started bearing fruits

Coming back to the Najafgarh Drain, which received huge quantity of industrial as well as domestic wastes from Haryana, I brought on board the Government of Haryana as well and even went over to that State to witness the cleaning and de-silting work.

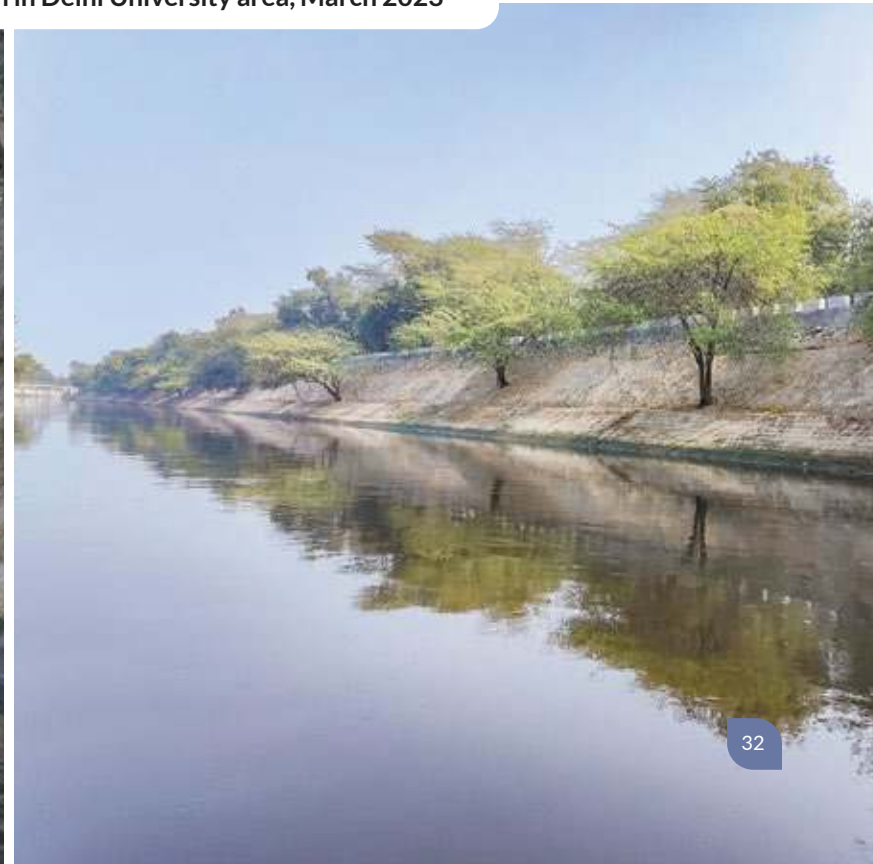
We were moving extremely fast on the subject of cleaning the Najafgarh Drain and began hoping that in a span of few years, we could restore a clean flowing Sahibi River to Delhi, which would not pollute the mainstream flow of Yamuna.



Partial Gravitational De-silting in progress at Najafgarh Drain, Punjabi Bagh, August 2022



Cleaned stretches of Najafgarh Drain in Delhi University area, March 2023





The Master Plan 2041 of Delhi

Through the last quarter of 2022, the Delhi Development Authority was burning midnight oil in finalizing the draft of the city's 4th Master Plan, which was expected to guide the developments till the year 2041. Every Master plan is a historical document, portraying the interests, consensus and requirements of a generation of people and so is a poignant piece of guidance to the community of planners, administrators and political leaders. Thus, a master plan is the floor for strategies to emerge in a perspective manner. The Master Plan 2041 was being contemplated upon for a very long time, over 4 years to be precise, before I took up the responsibility of facilitating the final touches. The plan document had evolved over 100 meetings of the stakeholders, experts, task groups, action committees, decision makers, thinkers, planners and public. The emerging vision was to foster a sustainable, liveable and vibrant Delhi. I held a number of meetings of the concerned Authorities and Agencies to delve deeper into the plan and determine where should the higher emphasis lie and how should the Master Plan serve the Capital. In my vision, Delhi in spite of all the historical tumult, was forever green and forever in celebration. The power of the capital was always to show itself as a sustainable habitat of civilizations. And Yamuna was undeniably at the mainstream of Delhi's life.

Reviewing the Master Plan, provided me with an opportunity to holistically look at and shape the blue-green assets and endowments

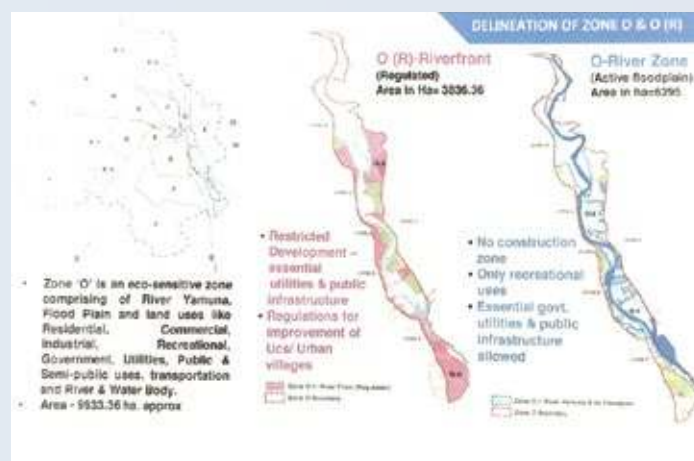
Reviewing the Master Plan, provided me with an opportunity to holistically look at and shape the blue-green assets and endowments of the city

of the city. On the face of it, Delhi has, over 200 natural drains, more than 900 water bodies and 44 kms of an ancient river. Although I didn't want to alter much of the collective vision of the draft Master Plan 2041, which was comprehensive, I articulated a higher emphasis on 'prioritising environmental sustainability' as the very first mission under the Plan. Delhi in its transformative journey, would require about 1,700 MGD of water in the plan period. And since about 80 per cent of the water supply was, in fact returning as wastewater, there was also a need to increase the current wastewater treatment capacity of 597 MGD to at least 1,200 MGD or more. And then, we needed to secure the river valley - its floodplain, into wetlands, biodiversity parks, flood plain devoid of unauthorised occupation, clearance of illegal agricultural use and cleaning the entire system of its impossible amounts of pollution. As an aside

Delhi in its transformative journey, would require about 1,700 MGD of water in the plan period. And since about 80 per cent of the water supply was, in fact returning as wastewater, there was also a need to increase the current wastewater treatment capacity of 597 MGD to at least 1,200 MGD or more

here, I would also like to flag the issue of monumental waste of potable water in Delhi. The demand of 1700 MGD for the city's requirement is a myth often perpetuated to hide the failings of managing water supply. Fifty-five per cent of water supplied in Delhi is wasted and is unaccounted for. This colossal waste takes place due to leakages owing to decrepit, old and leaking pipelines, T&D losses and theft by 'Tanker Mafia'.

While finalising the Master Plan 2041, we did take into cognizance the efforts made and the direction provided by the Hon'ble Supreme Court of India (SCI) and the Hon'ble National Green Tribunal (NGT), with regards to the Yamuna and Solid Waste Management since 1994. Abatement of the increasing pollution and returning the river to the citizens has always been the nation's collective aspiration. A structure for the monitoring of the river under the auspices of SCI had already existed for 23 years. In these years, the Governments of Delhi, UP and Haryana had already spent a collective colossal sum of Rs. 4,988 crores, by some estimates, to clean the river but by 2015 the wastewater outfall still stood at around 1,500 MGD. Delhi still did not have a capacity to address the issue. On 13th January 2015, the NGT had pronounced in a landmark judgement that defined the river zone and ordered that it should remain devoid of development. The judgement made immense sense to me as it had mandated - demarcation of the 25-year floodplains, repossession of floodplains, rejuvenation and beautification of floodplains, removal of encroachments, removal of *malba* from the floodplains, ban on any kind of construction activities, protection of floodplains and levying of penalties through the "Polluters Pay Principle". Eventually, the monitoring responsibility of the river had been delegated from the SCI to NGT and the NGT had prepared an organisational structure of expert committees to look after the river.



The cumulative wisdom coming out of these honourable efforts were etched into the Master Plan 2041 through wide deliberations and consultations.

With these things in the background, I approved the adoption of 'O' zone around the river in the Master Plan 2041, which had earlier been contemplated in Master Plan 2021, but could not materialise. I also felt that the delineation of 'O' as river zone and O(R) as riverfront, as articulated by the NGT in its 2015 order was imminent for the rejuvenation of Yamuna. The O-zone was etched in the Master Plan 2041 as an area of no construction, meant only for recreation and the O(R) was to be regulated, with only essential utilities and public infrastructure being allowed in it. In all, the O-zone was to have all of the river's active floodplains - an area of 6,295 hectares and the O(R) zone would have 3,836 hectares. A total of 9,933 hectares of protected zone around the river. Ensuring this was an exhilarating experience of satisfaction.



Aerial view of Asita, developed by DDA on the eastern bank of river Yamuna



Envoys of G20 Nations at ASITA on Yamuna banks in March 2023 to witness the restoration of Yamuna floodplains and efforts undertaken to maintain the ecological character of the river

The O-Zone re-development became an active agenda

I undertook several tours of the O-zone in the weeks that followed. I walked the floodplains, waded into shallow wetlands, checked on the illegal occupations and reviewed the developmental plans of the floodplain. This was a time in the third quarter of 2022 and by the first quarter of 2023, I had walked most on the riverbed and relived the pain of abuse of Yamuna. We know that it is difficult to oppose the elements of nature but there is no excuse for human procrastination and apathy in protecting a life giving natural resource. More I walked; more I felt the need for urgency in restoring the river to its original glory. I was also fortunate that the team of experts and officers who walked into this opportunity were very genuinely motivated and inspired.



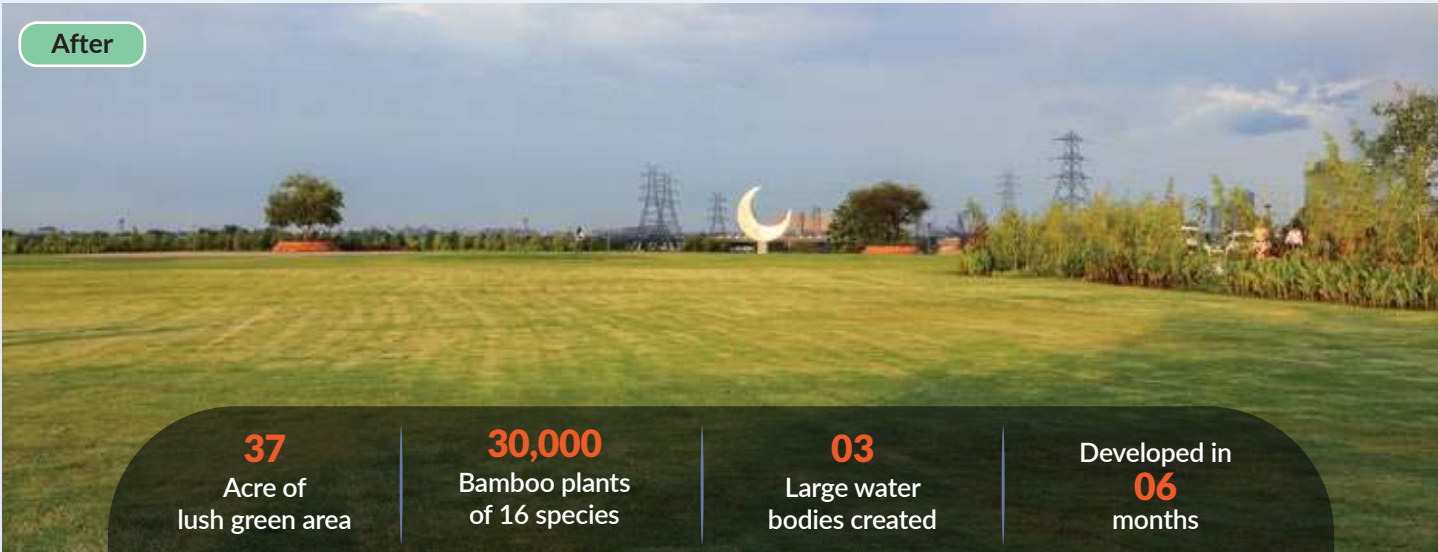
Addressing the envoys of G20 Nations at ASITA, March 2023

The O-zone restoration of Yamuna became an integral part of multiple visions during 2022-23. We knew that the most polluted part of the river was the 22-kms stretch south of Wazirabad Barrage because that's where the Najafgarh outfall debouched massive amounts of untreated wastewater into the river. In fact, several visits down the line, I came to realise that the Wazirabad Barrage separated the river into two entities - the very polluted river to the North and massively polluted river to the South. The 22-kms stretch of O-zone restoration was set south of the barrage. In this stretch 10 projects had been conceived with DDA in the lead and I prioritised eight objectives:

- Restoration of natural depressions
- Creation of catchment zones within the stretch to stop the runoff and increase groundwater recharge
- Revival of floodplain, wetlands, forests and grasslands
- Creating favourable habitats, especially for water and terrestrial birds, and wildlife
- Identifying target actions to tackle the root cause of degradation through engagement of all stakeholders
- Enhancing the sewage water treatment capacity across the city, so that the outfalls into the river are cleaner
- Removal of unauthorised occupation of the floodplain through just means and providing life support avenues to affected people
- Making the restored areas accessible to the public at large

In the course of implementation of these objectives, over 3,792 unauthorised structures were removed and 273.5 acres of land that belonged to the flood plain was re-possessioned. Through layers of ecological planting, we were able to revive the integrity of the ecosystem and bio-diversity in the 10 projects, which even today stand testimony to the efforts in areas like Asita wetlands and Yamuna Vatiika and many others.

Project Baansera



While surveying the banks of the river, I was also pained that the waste dumps along the river had been left there to remain and leach toxins, without allowing an ecological process of waste degradation and environmental recovery. As an experiment, which in a short time would yield huge dividends of intangible value, I directed the transformation of a massive waste dump into a bamboo oasis called Baansera (“Abode of Bamboos”), on the banks of the river at the Ring Road opposite Sarai Kale Khan. Baansera has now become the Delhi’s first Bamboo Theme Park for leisure and entertainment, while the waste dump would gradually diminish its toxic value through natural cycles of assisted ecosystem process.

This latest destination in the city is not only in consonance with the ecological character of the Yamuna floodplain, but will also further enhance it. Developed by the DDA in a short span of just 06 months, this green oasis in the heart of the city spread over 37 acres, now has 03 large water-bodies, grassed embankments to avoid soil erosion and 30,000 bamboo plants of 16 different species that will add 30 per cent more oxygen to the immediate ambience and help maintain the water table beneath the complex.

I directed the transformation of a massive waste dump into a bamboo oasis called Baansera (meaning “Abode of Bamboos”)

60 ft high musical fountain, the first of its kind in Delhi, installed at Baansera



Besides reviving the ecology of the floodplains by restoring the existing depressions into catchments, wetlands and plantation of native trees, exotic flora and riverine grasses, we also aimed at providing an engaging public space in the form of greenway along the Ring Road Bypass to revive the lost connection of people with the river. “**Yamuna Vatiika**”, a 200-hectare site spanning from Old Railway Bridge to ITO Barrage on the western bank of Yamuna received rapid development, attention and importance. The idea was that once it developed, it could serve as a huge respite to the people of nearby densely populated urban areas of Old Delhi and East Delhi.

Project Yamuna Vatiika





43,500
Native trees
planted

95,000
Bamboo plants
along the river

94 Lakh
Riverine grass
strands

Over 100
Species of birds
colonise the wetlands

Restoration of Yamuna Floodplains in Delhi

It is almost impossible to give the exact statistics of the green interventions my team of people, agencies and authorities made in the past year of my responsibility at the helm of affairs in Delhi. I can only spill here some underestimates of the collective efforts by saying we planted over 43,500 trees and 95,000 bamboo plants along the river, about 94 lakh riverine grass strands, watched over a 100 species of birds colonise the wetlands we recreated, and established exclusive zones for a number of exotic species, such as Chinar, Cherry Blossom, Tulips, Jacaranda, etc.

Just to give a general idea to the uninformed as to what we inherited and what we achieved within a span of a year, I must fall back on a technical term called the Biological Oxygen Demand (BOD), which indicates the suitability of water to sustain life, and in other words, prompts us to estimate, how unliveable the waters are. A BOD level of 1-2 ppm is considered very good. There will not be much organic waste present in the water at that level. A water body with a BOD level of 3-5 ppm is considered moderately clean. And above that can indicate the unliveable conditions of water as the number moves upwards.

The BOD level at Palla, the place where the river Yamuna enters Delhi was around 2.8 in May 2022.

With concerted efforts of the team, we had reduced the BOD by about 25 per cent in all affected stretches and had done away to some extent the decades long accumulated degradation of the river

And by the time the river reached Wazirabad Barrage, it was about 11, showing substantial degradation. Beyond the Wazirabad Barrage, which is the inflection point of the Najafgarh Drain into the river, Yamuna changes drastically into a soup of waste. Just as the river leaves Wazirabad Barrage, the BOD rises to 80, some 40 times more than what is healthy water. And by the time the river leaves Delhi near Asgarpur, the BOD is about 100, which in general terms is some 50 times degraded than the normal. I would leave it to your scientific minds to calculate what this could do to your body and to the vegetables and fruits that farmers grew along the river and supplied to the population. All I know in my mind is that this was hugely unacceptable and leaving it at that was a crime against humanity. And in a year's time, with concerted efforts of the team, we had reduced the BOD by about 25 per cent in all affected stretches and had done away to some extent the decades long accumulated degradation of the river. In that pace and with the possibility of compounding benefits, perhaps we were on the right trajectory to clean the river to acceptable limits within a few years.



A 11-meters work boat from the Indian Navy for exploring the navigability of the river Yamuna docked, a specially created Jetty at ITO Barrage, July 2023

Efforts at clearing and restoring the floodplains coupled with gradual improvement in the quality of water, paved the way for exploring the navigability of the river. The Union Defence Minister, Shri Rajnath Singh kindly consented to my request of providing a work boat from the Indian Navy for this purpose.

This 11-meters boat brought in from Kochi reached Delhi on 3rd June, 2023 and completed its survey of the river on 8th June, 2023, revealing a depth ranging from 0.9 meter to 04 meters. Thereafter, a suitable channel of about 02 meters was dredged in the Yamuna and I along with the Hon'ble NGT Chairperson inspected the navigable stretch of the Yamuna between ISBT and ITO Barrage on 4th July, 2023. This indeed would have been unimaginable in the stinking sludge that Yamuna had become just prior to the efforts that were undertaken after the 9th January, 2023 order of the Hon'ble NGT.



Inspection of the navigable channel of Yamuna on 04.07.2023 from Vasudev Ghat (ISBT) to ITO Barrage.
The navigability in river Yamuna was further validated by the Indian Navy



3rd HLC Meeting for Yamuna Rejuvenation at ASITA on the Yamuna Floodplains on 14.03.2023



As many as 30 Motor boats simultaneously cruised through the Yamuna on completion of the cleaning works on 11-kms stretch between Signature Bridge & ITO on 30.04.2023

High Level Committee (HLC) for Yamuna Rejuvenation

On 31st December 2022, as the year was coming to a close, I took Mr. Justice AK Goel, the Chairman of NGT on a boat ride of 6 kms on Najafgarh Drain. Justice Goel was personally involved in the efforts of the revival of the river and had often expressed that efforts of 3 decades and expenditure of about Rs. 5,000 crores had not rendered the river clean yet. This ride of 6 kms on Najafgarh drain was actually unthinkable of, some six months earlier. The drain was not yet fully clean but we had already removed tons of silt, broken the barriers, introduced new technologies of sedimentation, cleaned the embankments, allowed an easier flow, treated millions of gallons of wastewater that came through the subdrains and established monitoring stations along the channel. In fact, Justice Goel even saw a monitoring centre at Bharat Nagar before taking the boat ride from Bharat Nagar to Timarpur. My colleagues were very nervous but I was equally confident of showing what can be achieved in a matter of just a few months of hard work by the concerned.

Justice Goel has been personally involved in the efforts of the revival of the river and had often expressed that efforts of 3 decades and expenditure of about Rs. 5,000 crores had not rendered the river clean yet

That boat ride was not devoid of the stench of the drain. But it clearly showed that a waste water drain was fast finding its own roots of being a river – Sahibi. In six months, we had gone back by 60 years. And now, Najafgarh Drain no longer looked like a drain but a polluted river. The identity was changing, and it was visible to Justice Goel.

On 9th January 2023, as mentioned earlier the NGT took cognizance of the issue of unabated pollution of Yamuna citing the case of Ashwani Yadav v/s Govt of NCT of Delhi and constituted an HLC headed by me to deal with the unaddressed and non-complied directions of its order dated 27th January 2021. The HLC was asked to coordinate with all other departments, take stock of the situation with regard to the directions of the Tribunal, review compliance and non-compliance, build directives, review the sources of funding and accountability and work on the rejuvenation of the river, consistent with the spirit of orders of the Hon'ble Supreme Court of India. The order by the NGT was obviously to ensure compliance of the earlier directions of the Supreme Court as indeed the NGT itself and needless to say, was without prejudice to anyone.

That evening, I reflected on the development. I reviewed my own journey from being an ebullient boy thrashing a clean river by his palm to a helpless young man who lamented at the degeneration of a river to now being empowered to take control of the collective aspiration of a society to rejuvenate a dying natural endowment. It was a poignant moment in time. I had always desired to serve Yamuna but had not expected to be in a position in life to take charge of the river. This was a drift of life into a slot of high responsibility. I was elated. I knew I could no longer wish for others to clean the river for me. I couldn't now wait to move forward. In my imagination, I watched over the river from

I reviewed my own journey from being an ebullient boy thrashing a clean river by his palm to a helpless young man who lamented at the degeneration of a river to now being empowered to take control of the collective aspiration of a society to rejuvenate a dying natural endowment

ITO Bridge after a year and saw that the flow was clean, pristine and how it must have looked a century ago. I had always been pained by the sights of devotees on *Chhath Puja* wading into a foam filled toxic liquid to offer their respects to the Sun God and I had always wanted them to wade into a life-giving river of purity. I took the responsibility ever so seriously because it was fundamental to the survival and prosperity of Delhi as a sustainable city.

Before I called the meeting of the HLC, the pictures of abuse on different stretches of the river poured on my table. A number of people reiterated faith in my resolve to go on a war footing on efforts to rejuvenate the river. We had already done quite a volume of work on the river and its associated systems, but a tremendous amount of attention was still necessary.



Before I called the meeting of the HLC, the pictures of abuse on different stretches of the river poured on my table

I called for the first meeting of the HLC on 20th January 2023, without wasting much time. Before that, it had already been requested of the Members to compile a status note and action plan based on past experiences. The mood in the room was absolutely poignant. The Members were as much motivated to contribute to solving the issue as much as I felt I am. Everyone was rearing to go and I felt honoured by the competent and inspiring company of people.

Everyone was rearing to go and I felt honoured by the competent and inspiring company of people

While the HLC would address the daunting transformational tasks of fundamental nature, we would continue the many other initiatives through a range of actions we had already set in motion. But the intention of the HLC was to bring everything together and weave one substantial fabric of effort in an integrated manner.

We still had over 238 MGD of untreated sewage out of 768 MGD produced by Delhi from the 960 MGD of water supply. And even the 35 STPs spread across Delhi in 20 locations were only being used to 83.8 per cent of their installed capacity. The 18 major drains with a flow of over 48 MGD and 64 sub drains with a total flow of 230 MGD needed trapping. Most of the unauthorised colonies and JJ clusters did not have sewerage network. The Regulation of Yamuna Flood Plain in pursuance of NGT mandate involved over 1,500 hectares of land. And out of about 530 MGD of treated water available from the existing STPs, we still had over 103 MGD of treated water which was valuable but unused. These were some fundamental realities that arose before us, as we sat discussing into long hours the ways and means of assisting the river to rejuvenate.



5th HLC Meeting for Yamuna Rejuvenation at Raj Niwas on 09.06.2023

In the ensuing 6 months, I chaired five meetings of the HLC, with the last one being held on 9th June 2023. The progress was substantial and the work was intensive. Out of 76 sub drains, 36 had been already trapped against a target of 32 in the period. Out of 573 unauthorised colonies 124 colonies had already been addressed for sewerage network, against a target of 120. De-silting of about 44 kms of trunk/peripheral sewer had been completed in the meantime. Land allotment issues, upgradation of STPs, industrial effluent management, faecal sludge management, utilization of waste water, restoration of flood plains and a web of ground level actions, coordinating the wider aspects of the rejuvenation plan had all been prioritised and progressed on a mission mode.

All this, I can say, could be achieved in such a short span of time only because of a command structure that ensured seamless coordination between disparate stakeholders, working in tandem because of the order of the Hon'ble NGT. One example of seamless workflow, that was lacking till then could be seen in the fact that DDA, the Government of India agency in charge of land in Delhi allotted 35 acres of land to the DJB, under the GNCTD for development of 18 STPs.

Bio-remediation of polluted water by creating natural wetlands at Vasudev Ghat, May 2023



Appeal against the order of NGT

The Government of NCTD in May 2023 filed a petition before the Hon'ble Supreme Court to the effect that the activities of Rejuvenation of the river should be invested with them and the Lieutenant Governor should be divested of the responsibility of heading the HLC. The Hon'ble Supreme Court of India on 11th July, 2023 stayed the directions issued by the NGT on 9th January, 2023, that the Lieutenant Governor should Chair the HLC.

The Order stalled the initiatives that were being taken on a war footing for about an year. The appeal of the Government of Delhi was to vacate my leadership of the HLC and its initiatives and not to improve in any way the efforts of rejuvenation of the river. The appeal was not to showcase any higher competence, zeal or plan to rejuvenate the river by wresting the leadership of the HLC but only to circumvent my initiatives. There appeared to be no strategy or demonstrated will and commitment to return the river to the people of Delhi as a clean and life-giving entity. The appeal was to dis-empower a person and not to strengthen the programme.



Yamuna is an emotion



Launching the Yamuna cleaning operations
at Vasudev Ghat, ISBT on 16th February, 2023

I often get to witness the wetlands that had emerged due to the efforts undertaken during the past year. I get opportunities to spend some time on the green fields that have emerged on the waste dumps that earlier existed on the banks of the river. There is so much of unfinished work and yet, what we had gained is slowly diminishing. The Yamuna is yet again getting inundated with the confusion of ownership. The framework is ready, the soldiers were ready but it's just that in proving a political point, the plot is getting lost.

I look at Yamuna in the same way that I have always looked. My commitment to the river is as steadfast as it has always been in my life. I see the unfinished tasks concerning the rejuvenation of Yamuna as one of the unfinished missions of my life.

The Hon'ble Supreme Court of India had been personally monitoring the cleaning of Yamuna since 1994, as I had mentioned earlier. Even as it passed on the responsibility of doing so to the NGT in 2008, what came to be established as the biggest hurdle in cleaning of the river was jurisdictional control of the activities associated with cleaning it. This frustrating lack of ownership or multiplicity of jurisdictional controls over activities is what marred the Yamuna and the constitution of the HLC with myself in the Chair was an attempt to circumvent this multiplicity of jurisdictions and lack of ownership.

As it panned out, this attempt at bringing all under one umbrella and making the task of rejuvenating the Yamuna accountable proved to be beneficial to none more than the river itself. However, even as the new course was being charted, the Hon'ble Supreme Court modified the NGT order that designated me as the Chairperson of the High Level Committee. The rejuvenation works, thereafter, on all parameters, be it the cleanliness of the floodplains and riverbanks, levels of water pollution in the river, augmentation of sewer treatment capacity or diversion of sewer and garbage directly into the river, seem to have taken an apparent hit. The situation now is there for all to see.

It is my firm belief nonetheless that, Yamuna's time has come. The very force and logic of nature's evolution will compel course corrections and the river degraded due to unmitigated avarice of human kind will force, the people at the helm to address its concerns, as the recent flooding established.

Yamuna will have to be rejuvenated.



Inspecting the cleaned stretch of Yamuna from Signature Bridge to ITO Barrage, June 2023



Yamuna at ITO Barrage in June 2023, after 05 months of sustained efforts





Racing to restore
the YAMUNA memoir