

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH
NEW DELHI**

.....

Original Application No. 6 of 2012

And

M.A. Nos. 967/2013 & 275/2014

In the matter of :

1. Manoj Misra
178-F, Pocket, Mayur Vihar,
Phase-1,
Delhi – 110091.

..... Applicant

Versus

1. Union of India
Through the Secretary
Ministry of Environment and Forests
Paryavaran Bhawan, CGO Complex
Lodhi Road, New Delhi – 110003
2. National Capital Territory of Delhi
Through the Chief Secretary,
Delhi Secretariat, I.P. Estate,
New Delhi - 110002
3. Delhi Development Authority
Union Ministry of Urban Development
Through its Vice Chairman,
Vikas Sadan,
New Delhi – 110023
4. Delhi Pollution Control Committee
Through its Member Secretary
4th Floor, ISBT Building, Kashmere Gate
New Delhi - 110006
5. Yamuna River Development Authority
Through its Chairman,
Hon'ble Lt. Governor of Delhi,
Raj Niwas, GNCT,
New Delhi - 110054
6. Irrigation Department of Uttar Pradesh
Government of Uttar Pradesh

Through its Principal Secretary
Lucknow, Uttar Pradesh

7. State of Uttar Pradesh
Through the Chief Secretary
Government of UP
Lal Bahadur Shastri Bhavan
UP Secretariat
Lucknow - 226001

8. Municipal Corporation of Delhi
Through the Deputy Commissioner
Shahdara South Zone
Near Karkardooma Court
Shahdara, Delhi - 110032

9. State of Haryana
Through the Chief Secretary
4th Floor, Haryana Civil Secretariat
Sector-1, Chandigarh

.....Respondents

AND

Original Application No. 300 of 2013

And

M. A. Nos. 877/2013, 49/2014, 88/2014 & 570/2014

In the matter of :

1. Manoj Misra
Convener, Yamuna Jiye Abhiyaan
178-F, Pocket,
Mayur Vihar Phase-1,
Delhi – 110091.

2. Mrs. Madhu Bhaduri
A-12, IFS Apartment
Mayur Vihar Phase-I
Delhi - 110091

..... Applicants

Versus

1. Union of India
Through the Secretary
Ministry of Environment and Forests
Paryavaran Bhawan, CGO Complex
Lodhi Road, New Delhi – 110003
2. Ministry of Urban Development
Through the Secretary,
Nirman Bhawan
Maulana Azad Road
New Delhi – 110008
3. National Capital Territory of Delhi
Through the Chief Secretary,
Delhi Secretariat, I.P. Estate,
New Delhi - 110002
4. Delhi Development Authority
Through its Vice Chairman,
Vikas Bhawan,
New Delhi – 110002
5. South Delhi Municipal Corporation
Through its Commissioner
Civic Centre, Near Minto Road
New Delhi – 110002
6. Delhi Tourism and Transportation Corporation
18-A, D.D.A. SCO Complex,
Defence Colony
New Delhi – 110024
7. Unified Traffic and Transportation
Infrastructure (Planning & Engineering) Centre (UTTIPEC)
2nd Floor, Vikas Minar
New Delhi – 110002
8. Department of Irrigation and Flood Control
Government of National Capital Territory of Delhi
Nandlal Jhuggi, Gopal Pur,
Dr. Mukherjee Nagar,
Mukherjee Nagar
New Delhi – 110003

9. Delhi Urban Art Commission, DUAC
India Habitat Centre,
Lodhi Road,
New Delhi – 110003

10. Delhi Pollution Control Committee
Through its Member Secretary
4th Floor, ISBT Building, Kashmere Gate
New Delhi - 110006

11. State Environment Impact Assessment Authority, SEIAA
Through Member Secretary,
Department of Environment,
Govt. of NCT of Delhi
New Delhi

.....Respondents

Counsel for Applicants:

Mr. Ritwick Dutta, Advocate.
Mr. Rahul Choudhary, Advocate
Ms. Pallavi Talware, Advocate
Ms. Preeta Dhar, Advocate
Ms. Richa Relhan, Advocate

Counsel for Respondents :

(In O.A. No. 6 of 2012)

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Ms. Mamta Tandon and Mr. V. K. Tondon, Advs. for Respondent No. 2 & 5
Mr. Rajiv Bansal and Mr. Kush Sharma, Advs. for Respondent No. 3
Mr. Narender Pal Singh, Adv. and Mr. Dinesh Jindal, LO, DPCC for Respondent No. 4
Mr. Raman Yadav, Adv. for Respondent No. 6
Mr. Balendu Shekhar and Mr. Vivek Jaiswal, Advs. for Respondent No. 8
Mr. Narrender Hooda, Sr. Adv. and Mr. Vineet Malik, Adv. for State of Haryana
Mr. Mahesh Kr. Sharma, Adv. for Delhi Cantonment Board
Ms. Maninder Acharya, Sr. Adv with Ms. Puja Kalra, Advs. for South Delhi Municipal Corporation
Mr. Suresh Tripathi, Adv. for DJB
Mr. Venkatesh and Mr. Anuj P. Agarwala, Advocates for DCWA
Mr. Ankur Gupta and Mr. Sanjay Kumar, Advs. for DMRC

(In O.A. No. 300 of 2013):

Mr. Vikas Malhotra and Mr. M.P. Sahay, Advs. for Respondent No. 1

Mr. Ravi P. Malhotra and Mr. Abhinav Kumar Malik, Advs. for Respondent No. 2&4,7

Mr. V. K. Tondon and Ms. Mamta Tandon, Advs. for Respondent No. 3 &8

Ms. Maninder Acharya, Sr. Adv. with Mr. Balendu Shekhar, Ms. Puja Kalra, Advs. and Mr. Yashish Chandra, Advocate for Respondent No. 5

Mr. S.B. Upadhyay, Sr. Advocate with Mr. Sarvjit Pratap Singh Mr. Kaustuv P. Pathak, and Mr. Param Kumar Misra, Advs. for Respondent No. 6

Mr. Robin R. David and Mr. Febin M. Varghese, Advocates for Respondent No. 9

Mr. Narendra Pal Singh, Advocate & Mr. Dinesh Jindal, Law Officer, DPCC for Respondent Nos. 10&11

Mr. Yusuf Khan, Mr. Avneesh Arputham and Mr. Kabeer Shrivastava, Advocates for Respondent Nos. 14 to 16

Mr. Mahesh Kumar Sharma, Advocate for Delhi Cantonment Board

Mr. Balendu Shekhar and Mr. Vivek Jaiswal, Advocates for EDMC

Mr. Suresh Tripathi, Adv. for DJB

Mr. Venkatesh and Mr. Anuj P. Agarwal, Adv. for DCWA

Ms. Puja Kalra for North MCD

JUDGMENT

PRESENT:

Hon'ble Mr. Justice Swatanter Kumar (Chairperson)

Hon'ble Mr. Justice M.S. Nambiar (Judicial Member)

Hon'ble Dr. D.K. Agrawal (Expert Member)

Hon'ble Prof. A.R. Yousuf (Expert Member)

Reserved on: 9th December, 2014
Pronounced on: 13th January, 2015

1. Whether the judgment is allowed to be published on the net?
2. Whether the judgment is allowed to be published in the NGT Reporter?

JUSTICE SWATANTER KUMAR, (CHAIRPERSON)

In the year 1994, in furtherance to a news item published in Hindustan Times titled 'And Quite Flows the Maily Yamuna', the

Hon'ble Supreme Court of India issued *suo moto* notice to various authorities. Since 1994, the Hon'ble Supreme Court has passed various orders in Writ Petition No. 725 of 1994 and other connected matters with one object in mind, that, the '*Maily Yamuna*' should be converted into salubrious and pristine Yamuna and its water in the entire region, at least from Hathnikund in Haryana, to the Monitoring Station at Taj Mahal, Agra, should be least polluted. However, nothing mentionable was achieved for prevention, control and restoration of River Yamuna on behalf of the concerned authorities. Being completely dissatisfied with the state of affairs prevailing in that regard, the Hon'ble Supreme Court, vide its Order dated 10th October, 2012, observed as under:

“It has been brought to the notice of this Court that despite heavy expenditure, in thousands of crores, having been incurred by the Central Government, Government of the States of Haryana and Uttar Pradesh and the local authorities in the National Capital Territory of Delhi, the pollution of river Yamuna has increased by the day. A report has been filed on behalf of the Central Pollution Control Board wherein it has been reflected in paragraph (2) that the samples collected from river Yamuna show flagrant violation of the prescribed standards. For example, where the maximum permissible limit of BOD is 3 mg/l, there at the Nizammudin Bridge, it is 37 mg/l. Similarly, the total coliform permissible is 5000 MPN/100 ml, there it is 17000000000. The situation at some of the other points, including Kalindi Kunj, Okhla and even Palwal is no different. It is unfortunate that huge public funds have been spent without showing any results in the improvement of water quality of river Yamuna. Learned counsel appearing for Delhi Jal Board has not been able to inform the Court as to how many CETP and/or STP have been established by the Board and whether they are functional or not as per the requirements.”

2. The Hon'ble Supreme Court then proceeded to pass certain directions, with the hope that the authorities would take adequate and appropriate steps to attain the object of making Yamuna clean

and healthy. We are, in the present applications, primarily concerned with that section of River Yamuna which flows in the National Capital Territory (for short 'NCT') of Delhi. Yamuna has a 54 km stretch from Village Palla in the north to village Jaitpur in the south and forms inter-state border between Delhi and UP. Nearly 26-27 km stretch is from Wazirabad Barrage to village Jaitpur, which is the most significant section from the point of view of pollution. Experience has shown that authorities lacked requisite will to execute the orders, plans and schemes sincerely and effectively, which has resulted in turning Yamuna, particularly, in this section into a drain carrying sewage, domestic waste as well as industrial and trade effluents. The State instrumentalities and authorities have failed to discharge their Constitutional and statutory duties, while citizens have failed to discharge their Fundamental Duty to protect the environment, particularly in relation to River Yamuna. While, on one hand we venerate our rivers, on the other hand, we do not think twice before discharging untreated industrial effluents and sewage into them. River Yamuna is a victim of this dereliction of our Fundamental Duty for years. Despite assaults on nature by polluting River Yamuna through various activities like, encroachments on its banks and dumping waste on its river bed and floodplain, still, River Yamuna really flows 'quietly'. The authorities, as well as the people of Delhi owe a Fundamental Duty to do everything in their power to ensure restoration of River Yamuna to its natural flow and tranquillity. Thus, there is dire need to take stringent and effective steps, with a

determined mind, to ensure that none fails in performance of their respective functions, duties and obligations to achieve the ultimate goal of converting 'Maily Yamuna' into 'Nirmal Yamuna' under the project 'Maily Se Nirmal Yamuna' Revitalization Plan, 2017.

Factual matrix of the case/Facts leading to filing of the present applications.

3. The Applicant – Mr. Manoj Mishra, is a retired officer from the Indian Forest Services and the Applicant No. 2 (in Original Application No. 300/2013) Mrs. Madhu Bhaduri, is a former member of Indian Foreign Services, who have instituted both these applications under Sections 14 and 15 read with Section 18(1) of the National Green Tribunal Act, 2010 (for short, 'the NGT Act'). The first applicant has stated that besides being a member of Indian Forest Services of the country, he is a convener of the 'Yamuna Jiye Abhiyaan', part of a citizens movement to save the River Yamuna. Applicant no. 2 has averred that she has been a diplomat and an ambassador of Belarus, Lithuania and Portugal and after retirement from the services, she has been working as a social worker, with active engagement in various issues concerning the society and environment.

4. These applicants have approached the Tribunal with averments in their respective applications that their campaign has recognised that River Yamuna is not only a sacred river of India, but an aquatic lifeline for millions of people and also a large number of them depend on it for sustenance. Various studies and

data have revealed the fact that River Yamuna is critically threatened by unrelenting encroachments on its flood plain and by increasing population load, emanating as much as from domestic refuse, as from the agricultural practices in the flood plains and industrial effluents from the catchment area draining into Yamuna. The flood plains and river bed of Yamuna are under increasing pressure of alternative land use for various purposes, which are driven primarily by growth of economy at the cost of the river's integrity as an eco-system. The applicants strive to protect River Yamuna. The primary subject matter of the Original Application No. 6 of 2012 is the recent encroachment and dumping of building debris and other solid waste in the river bed/flood plain and even into the natural water body of River Yamuna. According to the applicants, there is a water body situated in the river bed of Yamuna, located across the road from colonies of East Delhi. The City Map, Delhi Eicher, 2006 Edition, clearly shows proof of long living natural water body opposite to these colonies. A picture taken from the Google Earth on 28th October, 2010, after the floods in the river, also shows the water bodies. When the applicant visited the river beds and flood plain of River Yamuna on 11th November, 2011, it was revealed that the said river bed and the downstream of the water body is being covered with solid waste, including construction debris and household waste. Photographs have been filed with the Application to show that one of the water bodies has become a dumping ground. The applicants made various representations to the Yamuna River Development

Authority and informed it about the illegal actions on the part of the concerned Departments, more particularly, the Department of Irrigation and Flood Control, Municipal Corporation of Delhi and the Department of Agriculture & Co-operation, but to no avail. On the contrary, fresh debris continued to be dumped in that area and a large number of “*Jhuggies*” (hutments) were also constructed. The applicants paid successive visits to the site in question during November and December, 2011 but such dumping activities increased with time, despite the fact that applicant made all possible efforts to move the authorities vested with duty of preventing such activities.

5. The Ministry of Environment, Forest and Climate Change (for short, the ‘MoEF’), in exercise of the powers conferred under sections 3, 6 and 25 of the Environment (Protection) Act, 1986 (for short, the ‘Act of 1986’) promulgated the Municipal Solid Waste (Management and Handling) Rules, 2000 (for short, the ‘Rules of 2000’) which clearly provide the entire mechanism for management of solid waste and respective responsibilities of the State Government, Municipalities and the Delhi Pollution Control Committee. Most of them are respondent authorities who have failed to discharge their duties to manage and regulate the dumping of municipal and other solid waste on the flood plain, river bed and in the river itself. According to the applicant, illegal and indiscriminate dumping of solid waste in the natural water body in the river bed of Yamuna has not only recklessly polluted River Yamuna but also damaged the ecology in the area.

6. According to the applicant, the right to a clean and healthy environment for the inhabitants of the area and the entire Delhi for that matter is violated. The authorities have miserably failed to discharge their duties to protect the River Yamuna, its river bed, flood plain and wildlife, in and around the river, from being polluted and being adversely affected. This is a clear violation of the rights of the public at large in terms of Article 21 of the Constitution of India. There is a clear constitutional mandate that not only requires the State to endure to safeguard environment and wildlife, but, also the citizens to improve the natural environment including forest, lake, river, etc. The present case, according to the applicant, is a glaring example of total failure of both the constitutional obligation of the State and fundamental duty by the citizens under Articles 48A and 51A(g) respectively of the Constitution of India. The applicant has also relied upon the judgement of the Supreme Court in the case of *Subhash Kumar v. State of Bihar & Ors.*, (1991) 1 SCC 598, where the Supreme Court held that: “right to live is a fundamental right under Article 21 of the Constitution and it includes right to enjoyment of pollution free water and air for full enjoyment of life.” The applicant also invoked special jurisdiction of the Tribunal in terms of Section 15 of the NGT Act, praying for complete restitution of the environment and ecology of the river bed and for making Yamuna pollution free.

7. On the above factual averments, the applicant has prayed in Original Application No. 6 of 2012 that all the debris and other solid waste dumped in the river bed should be directed to be removed

and the natural water body be restored to its original form. The authority should be directed to take appropriate steps for preventing the dumping of debris on the river bed and for taking all other steps that may be necessary in that behalf.

8. The grievance of the two applicants in Application No. 300/2013 is in regard to the ongoing encroachments and the conversion of Kushak Drain into parking and road-cum-parking space and conversion of land use of the Shahdara Link Drain from 'utility' to 'commercial' and proposed construction of commercial undertaking in the form and nature of "Delhi Haat" - a commercial shopping complex, over and above the drain.

9. The case of the applicants in this application is that River Yamuna cuts across the eastern part of the NCT of Delhi and is bound by hard rocky area of the ridge and closed basin of Chhattarpur. A physiographic layout of NCT of Delhi shows that the natural drainage of city is river bound. The city of Delhi, on account of its undulating terrain, has a number of natural and manmade storm water drains to ensure that the city does not get flooded during rains and the water reaches with ease to River Yamuna. Quite contrary to this, the urban flooding in Delhi in monsoon is common. The main reason for this frequent flooding is that, over a period of time many of the storm water drains, which also at one time acted as the natural tributaries of River Yamuna, have been first turned into storm-cum-waste water drains and later many of them were covered and taken away from public view and obstructed from playing their natural role as storm water drains as

well as verdant greenways within the city. According to the applicants, such ill-advised conversion of drains has reduced the easy and efficient drainage in the city as well as compromised the biodiversity present in and along these drains and their ability to recharge the ground water. The conversion has played havoc with the environment and the ecology associated with these drains, including their ability to carry clean water and to keep the ambient air quality. Further, as a result of pollution resulting from traffic coming to a standstill, there is manifold increase in air pollution and people have to face unimaginable hardship. There is also the risk of fatal diseases like dengue etc. from the standing water. Some newspaper cuttings have been annexed to substantiate this plea.

10. The Kushak drainage system in South Delhi forms a major tributary of the Barapula drainage basin and is situated in the west bank of the River. Originating from the southern ridge beyond the Mehrauli Badarpur Road, it drains out wastes from areas in Saket, Pushp Vihar, Khidki Village onto Sheikh Sarai, Chirag Delhi and then enters Panchsheel Enclave after crossing the outer Ring Road. Skirting along the Siri Fort area, it flows further into G.K.-I, Andrews Ganj, Defence Colony along the Jawahar Lal Nehru Stadium and Jangpura before meeting the Barapula Drain opposite Nizamuddin area. It covers a distance of some 11 kms and drains out sewage and other wastes from most key localities of South Delhi area.

The Shahdara Basin covering about 30,000 acres of land in the Union Territory of Delhi, is situated on the eastern bank of

River Yamuna. The basin is bound by the River on the west, river Hindon on the east and Uttar Pradesh on the north and south. The G.T. road passes through the centre of this basin from west to east. The Shahdara drain is managed by the Department of Irrigation and Flood Control of the Government of Delhi. According to the applicants, the whole of the Shahdara basin in Delhi is below the High Flood Level of River Yamuna and it has the tendency of getting flooded quite often. This drain is helpful in carrying runoff during the rains and helps in preventing flooding of the area during excessive rains. This drain acts as a lifeline for many aquatic and riparian species of flora and fauna, which thrive and survive on the existence of this drain. The Shahdara drain in east Delhi is around 5 kms long, beginning from Northern Railways main line in Shakarpur area, till it meets the main Shahdara drain close to the Chilla Regulator. The applicants have stated in their application that these, amongst other drains, are an essential feature of the city to keep the environment and ecology balanced.

11. The applicants have made an attempt to show the significance of storm water drains and why is it essential that they must be kept obstruction and pollution free. It is also the averment of these applicants that the drains ought not to be covered, as covering of such drains would add to natural calamity, increase in pollution and diseases. They have specifically referred to the advantages of open drain system in the application. The relevant part thereof reads as under:

“...well protected and conserved drainage architecture (natural as well as manmade) in any city is an essential part of its efficient environmental and social planning and management. Open to sky storm water drains that ensure easy collection and draining away of rainfall water serves a number of purpose, in addition to ensuring that the potential flooding of areas in a city is prevented. These include:

- a) Serve as ground water recharge channels;
- b) Serve as greenways, when these are properly managed;
- c) Provide much needed open stretches in cities which are otherwise turning into concrete jungles and heat sinks;
- d) Ensure that the water that flows in these drains is well oxygenated and hence wholesome before it finally drains into a river, sea or a lake;
- e) Help clean naturally the waste water if any that flows in these drains;
- f) Maintain biodiversity and habitat conditions for a variety of plants and animals including small mammals, reptiles, birds, butterflies, etc.
- g) Act as NMT (non motorized transport) channels;
- h) Help maintain/increase value of property lying close to these channels in cities where widespread concretization has turned an urban area/city into a heat sink and where open spaces are available only at a premium.”

12. To further support their plea, they have also averred that many cities in developed countries like USA, UK, Canada, Germany, Denmark and Switzerland etc. where the city and town planners had previously permitted the covering of urban streams and storm water drains and converted them into either roadways or other incompatible uses, are now realizing the past mistakes and have now reverted to the open drain system and are taking steps to reopen its drains in a process called, “greening of city’s grey architecture”.

13. The MoEF had visited the drain systems in Pune and reported to the High Court in Bombay in PIL No. 41/2011, that the works on the drain system, i.e. its channelization, wrong channelization, concretization or converting the drains in the name of development, showed the following disadvantages:

- “1. Constriction and alteration of water bodies.
2. Reduced recharge of ground water and impeding the natural ecological flow.
3. Destruction of riparian biodiversity, riverine ecology and the wetlands/floodplains.
4. Pollution of Surface, Subsurface and Ground water.
5. Change of natural functions of streams to convert them into sewers and gutters.”

14. The applicants have specifically averred that articles based on different studies which have also been published, show formation of an unambiguous opinion that Yamuna can be described as ‘The Dirty Drain’. Referring to the 21st meeting of the governing body of the Unified Traffic and Transportation Infrastructure (Planning and Engineering) Centre (for short ‘UTTIPEC’) held on 19th February, 2010, the applicant avers that covering a drain is injurious to the environment, ecology and human health. The applicants have relied upon the following extract of the said meeting.

“no such covering of drain, henceforth, will be taken up by any agency, apart from the works which have already been undertaken and these drains should be cleaned and developed with ecological and local landscaping and to be used as NMT connectivity routes as per the presentations earlier given by various experts at previous Governing Body meetings.”

15. However, in absolute contradiction to the afore-referred, the South Delhi Municipal Corporation (for short ‘SDMC’) is

implementing a project under Jawaharlal Nehru National Urban Renewal Mission (for short 'JNNURM'), for conversion of Kushak Nallah/drain for providing parking/road-cum-parking under its jurisdiction. They are also planning to construct "Delhi Haat" in East Delhi, by covering Shahdara Link Drain along NOIDA Link Road at Mayur Vihar, Phase-I. They have even issued public notice to that effect on 5th July, 2013 for changing use of 27,000 square meters area of Shahdara Link Drain from 'utility' to 'commercial'. The applicants made various representations against these proposed projects. Relying upon the Doctrine of 'Public Trust', the applicant made further representations before these authorities, with an intention to draw their attention, but nothing fruitful was achieved from these efforts, thus, compelling the applicants to approach the Tribunal by filing the present application.

16. The applicants heavily relied upon the judgment of the Supreme Court in the cases of *M.C. Mehta v. Kamal Nath & Ors.*, (2000) 6 SCC 213 and *Dr. B.L. Wadhera v. Union of India & Ors.*, (1996) 2 SCC 594.

17. With reference to these judgments, it is contended that pollution is a civil wrong and is committed against the community at large. Persons who commit such wrong have to pay damages (compensation) for restitution of the environment and ecology. Rapid industrial development, urbanization and regular flow of persons from rural to urban areas, has made major contribution to environmental degradation. Thus, the authorities entrusted with the work of pollution control, cannot be permitted to sit back with

folded hands on the pretext that they have no means to control the pollution and protect the environment. The drains, particularly, the natural storm water drains which meet River Yamuna and provide it water, that can even help in diluting pollution and provide safer environment, must be kept free of obstruction and pollution. With reference to the above facts and the principles of law, the applicants have prayed that for preservation of environment and maintaining the ecological balance, the Tribunal should direct stopping of construction activities on both these drains, that the drains should not be covered, that Expert Committees should be appointed to suggest methods for maintenance of storm water drains as ecologically secure green ways and the respondents or any other person be prohibited from demolishing or destroying the natural and/or artificial drains in Delhi.

18. To these applications, the respondents have filed different replies. According to the respondent no. 6, Delhi Tourism and Transportation Corporation (for short 'DTTC'), the work of constructing "Delhi Haat" has not commenced and is at a preliminary stage of consideration, thus, the petition is not maintainable. As the said respondent is only concerned with the "Delhi Haat" project they have not dealt with any averment in relation to the Kushak drain. According to this respondent, the matter in relation to the covering of storm water drain is a matter of controversy and some directions have also been passed by the Delhi High Court in that behalf. No work has commenced on the Shahdara Link Drain. Only objections have been called for by the

Delhi Development Authority (for short 'DDA') by issuing a public notice for conversion of land use from 'utility' to 'commercial'.

19. According to the Respondent Nos. 4 and 7, objections and suggestions have been received in response to the public notice dated 5th July, 2013, issued by the DDA and the matter is pending for further decision. It is stated that the Delhi Master Plan, 2021 is to be modified, subject to determination of these objections. The averment with regard to passing of the resolution dated 19th February, 2010 by the governing body is not disputed before us.

20. According to the Delhi Pollution Control Committee (for short 'DPCC') and the State Level Environmental Impact Assessment Authority (for short 'SEIAA'), it is stated that these projects may fall within the Clause 8(a) of Environmental Impact Assessment Notification, 2006 (for short 'Notification of 2006') and if that be so, the SDMC or the Delhi Municipal Corporation (for short 'MCD') or any other agency, on that behalf, has not approached any of the respondents for getting Environmental Clearance, ought to have been taken. In Original Application No. 6/2012, respondent no. 1 has taken the stand that the present application does not involve substantial question relating to environment. However, referring to the Rules of 2000, it is stated that these Rules stipulate specifications source segregation, collection, transportation, waste process disposal and other features of disposal of Municipal Solid Waste (for short 'MSW'). It is denied by this respondent that any representation was received by them. According to them, it is the responsibility of all the concerned State Pollution Control Boards to

control and monitor the discharge of industrial effluents in order to ensure that untreated industrial effluents do not fall into the river. It is stated that in order to address the immediate need for intervention in the interest of ecology and environment of River Yamuna, the Central Government had extended a hand-holding role, through central assistance for pollution abatement works in identified stretches of certain rivers under the Ganga Action Plan. The Yamuna Action Plan is being implemented by the Government with assistance from Japan International Corporation Agency, in three States; Uttar Pradesh, Haryana and Delhi, in a phased manner. According to this respondent, the Municipal Authorities are required to set up waste processing and disposal facilities following the norms for handling MSW, i.e. collection, segregation, transportation, processing and disposal of MSW.

21. The DDA/respondent no. 3 has responded to this application stating that the DDA is not the person responsible and hardly any relief can be claimed against them under the provisions of the NGT Act, 2010. According to this respondent also, the responsibility lies on the municipalities and municipal authorities for dealing with MSW. The structure plan for Yamuna River Front Development (for short 'YRFD') Project has been developed by the DDA on the basis of value analysis and through study of the site and other factual data. In their reply, details of such plan have been provided. The purpose of the project is to facilitate the citizens of Delhi with vast recreational areas and simultaneously preserving, restoring and developing biodiversity of river basin. The areas under jurisdiction

of DDA are under various stages of development and designs were meticulously made to reach the goal of achieving the objectives of YRFD Project. According to them, they are putting up warning sign boards against dumping of *malba* and debris at the sites which are under its purview and jurisdiction.

22. According to the respondent nos. 2, 4 and 5, the Tribunal has no jurisdiction to entertain this application, as it does not involve any substantial question of law relating to environment, arising out of the implementation of enactments specified in the Schedule I to the NGT Act, 2010. On 16th May, 2012, a meeting of these respondents and the implementing/monitoring agencies was held and decisions were taken in relation to identification of areas generating solid and/or building waste in bulk, creation of special task force for patrolling of areas generating solid/building waste in bulk and illegal dumping sites, removal of dumped soil by the Delhi Metro Rail Corporation (for short the 'DMRC'), issuance of public notice publicising the temporary waste deposit sites under the MCD, removal of waste lying along the roadside and submission of YRFD by the DDA to the Environment Department. These decisions were approved and some actions had been taken in furtherance thereto. On 9th July, 2012 a meeting to review the progress and compliance of the decisions/directions which emerged in the meeting dated 18th May, 2012, was conducted, where the steps to be taken in future to prevent dumping of solid waste in the River Yamuna flood plain, which was a serious problem, were stated. It was considered necessary to install barricades, identify areas

generating bulk solid/building wastes and erection of further warning signage at the sides of Yamuna river. With these averments, these respondents said that they are taking effective steps to control and prevent the menace of dumping debris in the flood plain and in the River Yamuna, including the MSW and construction debris.

23. As would be evident from the above-referred pleadings and the voluminous records that have been produced before the Tribunal, no one before the Tribunal is questioning the seriousness of the environmental and ecological issues arising from pollution of River Yamuna, throwing of construction debris and other MSW in the River, its flood plain, as well as the storm water drains, whether natural or artificial, which have been converted as dirty drains carrying sewage or municipal waste. These pollutants and unchecked developments which are violative of the Principle of Sustainable Development are causing havoc in the city of Delhi. The various concerned authorities, particularly respondent no. 6, are shifting the responsibility on others, but are unable to dispute a hard fact, that they have failed to prevent and control the pollution, much less, restore River Yamuna to its natural flow. The various measures stated to have been taken by the authorities have fallen much short of those required. There appears to be a lack of institutional will to implement various policies, schemes and decisions to protect and restore River Yamuna and its banks. How long this attitude of planning, waiting and watching would be resorted to by the concerned authorities and would it be in the

interest of environment, ecology and public interest and health of the residents of Delhi, is the moot question, to which the attention of all concerned needs to be adverted to.

Proceedings before the Tribunal with reference to its Orders and implementations thereof

24. Finding that substantial questions of law, with regard to environment, are involved in these applications, notices were issued to the respondents. In the meanwhile, they were directed to take steps to stop further encroachment and dumping of MSW and debris in the riverbed. The question that was required to be considered was to find out the most effective and practical way in which dumping could be stopped on the Flood Plain and the riverbed of Yamuna, as well as how these areas are to be restored and beautified so as to discourage further dumping of construction debris or waste in and around River Yamuna. Vide order dated 31st January, 2013, the Tribunal directed State of UP, the DDA, Government of NCT of Delhi and the East Delhi Municipal Corporation to start the removal of debris from the river banks and the water bodies mentioned in the petition near River Yamuna. The Corporation had stated that it had issued Notification identifying the sites at Gazipur which were meant for dumping of MSW. Thus, all other authorities were also directed to identify the sites for dumping of debris and waste and in the meanwhile all construction debris was directed to be transported to the site at Gazipur.

25. Vice Chairman, DDA was directed to hold meeting within one week with all the concerned Corporation/Authorities as well as with the State of UP to ensure that the directions are complied with and debris, which was stated to be in huge quantity, is removed from the riverbed. Vide our order dated 1st February, 2013, keeping in view the fact that a large number of authorities were involved, it was considered appropriate to constitute a Special Committee chaired by the Secretary, MoEF and of which Additional Secretary, MoEF was also directed to be a Member. The Tribunal had also appointed Local Commissioners to visit the sites in the entire stretch of Yamuna that flows in Delhi and to report with regard to removal of construction debris and other waste. The reports from the Local Commissioners had shown that the directions issued by the Tribunal were not being carried out in its true letter and spirit. One of the Commissioners noticed that trucks are entering into River Yamuna from different places where the wall was found punctured despite the fact that there are police posts. It was also pointed out that DMRC was also throwing its debris in the riverbed of Yamuna. Again, all public authorities were directed to ensure removal of debris and maintenance of proper log records for carrying of such debris to the earmarked sites. We must notice that all the Learned Local Commissioners acted *pro bono* and did not take any fees for ensuring compliance of the directions of the Tribunal. The High Powered Committee constituted by the Tribunal, in its report noticed that nearly 37000 cu.m. of debris/construction materials are lying on the eastern bank and 53,000 cu.m. on the

western bank near Nizamuddin bridge, Batla House, of the river Yamuna. These figures were undisputed. The report of the High Powered Committee was provided to all the authorities and they were directed to remove the debris thrown by the respective authorities and take them to the earmarked sites. The Tribunal also directed all concerned authorities, including the Police, to ensure that no fresh debris or waste was thrown on the riverbed. The High Powered Committee had also considered development, beautification and restoration of river banks for entire River Yamuna from one end to another end of NCT of Delhi. It was felt that out of the total 9700 hectares area for River Front Development ('O' Zone) only 1452 hectares was available with DDA and the balance area is under agriculture and other leases, encroachments, etc. by different persons.

26. In the order dated 17th July, 2013, the Learned Local Commissioners had filed their respective reports. They brought to the notice of the Tribunal that dumping continues on the river bank particularly in Geeta Colony. They also stated that the debris has not been lifted from that site and mainly the debris have been dumped at the bank of the River Yamuna. This debris was thrown in front of the residential block of the DMRC and in Geeta Colony.

27. In the order dated 22nd July, 2013, it was noticed that nearly 400 to 500 tonnes debris per month is being disposed of on the banks of river Yamuna in Geeta Colony, more particularly, during the night hours. Thus, the Tribunal issued directions for the Government of UP and NCT of Delhi to depute officers and keep a

vigil over dumping of debris on the river bank. It was further noticed that nearly 5000 tonnes of debris was lying on the western bank. The dispute was whether it belongs to DDA or DMRC. Both these authorities were directed to hold a meeting and mutually decide as to who is responsible to remove debris. But, in any event if no decision is mutually taken, both the parties will remove debris in equal share and report to the Tribunal on 15th August, 2013.

28. In this very order, the Tribunal, while invoking the 'Polluter Pays' Principle, directed that any person who is found dumping debris on river bank in Geeta Colony site and for that matter in any site, shall be liable to pay compensation of Rs. Five Lakhs for causing pollution and/or destroying the riverbed and flood plain and the time and man power taken for removal of the said debris from the site in question. The Learned Counsel appearing for the MoEF had stated before the Tribunal that the Expert Committee requires further time to finalise the 'Preservation and Beautification Plan' of river bank and flood plain and that the terms of reference are under preparation. This request was accepted and time was granted to the authorities. The Tribunal also clarified that the sum of Rs. Five Lakhs for dumping, debris or waste on the river bank Yamuna would be the liability of the person responsible for dumping, even the truck owner, as well as person to whom the debris belongs. In other words, the person whose property was demolished and debris was generated and the contractors who were carrying on the business and were transporting the debris. It was stated before the Tribunal and it was found to be correct that the

debris thrown by DMRC and DDA had been completely removed and only some smaller debris remained. They were agreed to be cleared by 15th September, 2013 positively. The Irrigation Department of UP was throwing its debris at Thokar No. 11&13 and the solid waste is also being thrown along side of Noida link road towards Geeta Colony. These authorities were directed to clean and remove both construction debris and MSW. The Learned Local Commissioners in their Report confirmed that the debris dumped by the authorities and people have been removed. Through our order dated 24th September, 2013, we had recorded appreciation for the work done by all authorities in removing the debris. The High Powered Committee was directed to expedite the filing of the report before the Tribunal. The Committee had also asked for some details from various other authorities who were directed to fully cooperate and furnish the required information to the Committee so as to enable and prepare this report with utmost expeditiousness.

29. Learned Advocate General appearing for the State of UP submitted that entire debris had been removed from the banks of River Yamuna from the area under their jurisdiction and they were keeping strong vigil, ensuring that no dumping of any material is permitted in future. The DMRC filed an affidavit stating that they have removed nearly around 23280 metric tonnes debris and 4700 metric tonnes debris still remains around the locations which are occupied by *Jhuggies* and it is difficult for them to remove that debris. However, they were directed to remove the same as well.

30. On 21st October, 2013, in Original Application No. 300 of

2013, after hearing the parties at great length and considering the resolution of the UTTIPEC, it was directed that *status quo* shall be maintained, i.e., no further construction shall be carried out in the drains in Delhi: whether manmade or natural. Even the Delhi High Court had noticed that there is no consistent policy of the State as to whether they should be covered or not.

31. Vide our order dated 28th November, 2013, we had also directed the authorities to take a clear stand as to whether such projects would be covered under the Notification of 2006 or not. As already noticed, the Corporation had taken a stand that such projects are covered. Thereafter, the matters had mainly been heard together and common orders were passed in the Original Application Nos. 06 of 2012 and 300 of 2013.

32. Interim Report on behalf of the MoEF was filed and time was prayed for filing of the final report. On 18th December, 2013 Professor C.R. Babu, Chairman of the Committee which was constituted by the MoEF to critically analyse and examine the YRFD Plan and to give suggestion for its further improvement, was present before the Tribunal. He submitted that considerable work was still required to be completed and some data is to be collected. It was noticed that some data was available which had been provided for the first time by Geo-Spatial Delhi Ltd (GSLD) in form of 0.6m contour interval maps, examination of which, will result in better mapping of Yamuna River Front flood plan. Tribunal granted time till February, 2014 to accomplish the object.

33. The River Yamuna is one of the sacred Himalayan Rivers originating from Yamunotri Glacier (near Saptarishi Kund at Bandar Poonch Glacier Peak at an elevation of 6387 m in Mussoorie range of lower Himalaya. The river travels over a distance of 1370 km across Uttarakhand, Himachal Pradesh, Haryana, Delhi, Rajasthan and Uttar Pradesh and finally joins Ganga at Allahabad (Prayag); its basin spreads over an area of 66,220 sq.km which constitutes 42.5% of the total Ganga River basin and has four major tributaries – Tons, Giri and Bata, which join it from its right side and Asan, which join it from its left side, all of which constitute basin (Head water) of the river in Himalayan states. Tons constitute 60% of the flow of the river. In plains its tributaries are Hindon, Chambal, Sindh, Betwa and Ken. The upper Yamuna basin upto Okhla in Delhi represents less than 20% of its total basin (Martin et al, 2007; Agarwal & Krause, 2013). According to Agarwal & Krause (2013), 17 hydroelectric projects were completed, one hydroelectric project is under construction and about 20 are proposed within Yamuna river basin. It enters into plains of north India after the river forms an interstate border for about 50 km between Uttarakhand and Himachal Pradesh. In the plains, it forms an interstate border between Haryana and Uttar Pradesh for about 200 km distance and then it enters into Delhi. After traversing 45 km, it forms an interstate border between Delhi and UP and then forms interstate border between Haryana and UP and finally enters into UP and runs parallel to Ganga before joining it at Allahabad. A total of 6 barrages were constructed across the river. In the hills

one barrage on Yamuna at Dakpathar and another one on its major tributary Asan were constructed in Uttarakhand; in the upstream of Delhi, Hathnikund (Tajewala) barrage was constructed in Haryana and the water was diverted to Western Yamuna Canal (WYC) and Eastern Yamuna Canal (EYC). The tail end of WYC joins the River Yamuna near Palla and EYC also joins at Wazirabad reservoir. Further, the abstraction of water at Tajewala barrage, which is about 2 km distance downstream from Hathnikund, takes place. Within NCT of Delhi, three barrages were constructed across the river—the Wazirabad, the ITO and the Okhla barrages. In UP, Gokul barrage was constructed to provide drinking water to Mathura and Agra. The river enters into NCT of Delhi at Palla in the north and exists at Jaitpur in the south. The river Yamuna within NCT of Delhi and the corresponding portion of UP traverses over a distance of 54 km. The stretch of 26 km in the upstream of Wazirabad reservoir receives water from a branch of Western Yamuna canal which joins the river at Palla and the Eastern Yamuna canal joins it at Wazirabad barrage; both the canals originate from Hathnikund barrage, the downstream of which there is no flow from barrage, during lean period and whatever the flow is from the canals. Consequently, there is practically no flow after Hathnikund barrage into river Yamuna during dry season.

34. However, it needs to be noticed that during monsoon season, because of higher floods (7 lakh cusecs of water passed over Tajewala weir in 1978; Report of the High Powered Committee, 2010), Haryana, Uttar Pradesh and Delhi planned and constructed

extensive drainage and river control works including embankments. The mean availability of water in the river at Tajewala during monsoon (July-October) is 19705 cusecs for distribution among basin States. The discharges higher than 1975 cusecs are received at Tajewala for an average of 28 days during 4 months of monsoon. The Delhi Development Authority had intended to channelize the river in the city portion (from downstream of Wazirabad to Okhla during MPD 1981-2001) to restrict the flow area in the river and utilize the remaining land for other development purposes. The concept of channelization was however not found technically feasible, as there are: (i) no flood moderating structures in the upstream and (ii) adverse impacts of higher flow levels in the canalized river section on the entire drainage system.

35. For these reasons, it is necessary to first workout mechanism for ensuring minimum environmental flow in the River Yamuna passing through NCT Delhi during non-monsoon season on the one hand, whereas, have complete obstruction free cross-sectional area, including the flood plain, for safe disposal of peak monsoon flood as released from upstream barrage at Tajewala, on the other hand. Maintaining minimum environment flow of River Yamuna and the fact that this was considered by the Expert Committee as one of the essential facets for the effective implementation of the report, vide our order dated 17th February, 2014, we directed the State of Haryana to be impleaded as a party. The copy of the report furnished was directed to be supplied to all the Learned Counsels appearing in the case. After considering the findings of the Expert

Committee, the Tribunal had directed the Director, IIT Delhi and the Director, IIT Roorkee and Professor Brij Gopal on 27th May, 2014 to provide due assistance to the Tribunal. The Directors were granted liberty to nominate Professors from the relevant fields. Professor Gosain appeared before the Tribunal and submitted a note on the facets of pollution resulting from drain sewage and finally polluting River Yamuna very seriously. Professor Brij Gopal also appeared and after hearing them along with and on the basis of the interim reports that have been submitted by the MoEF, the matters covering both these applications were divided into three different classes vide our Order dated 30th May, 2014, which were the environmental issues. It will be useful to refer to the order dated 30th May, 2014 as it deals with the different facets of environmental issues raised in these two petitions and how it should be proceeded any further:

“In furtherance to the order of the Tribunal we are informed by the Professor Gosain, that Director of IIT Delhi as well as Director of IIT Roorkee are out of the country and therefore have not been able to present today before the Tribunal. We direct both the Directors to be present on the next date of hearing positively and without fail.”

Professor Gosain, has placed before the Tribunal a short note on the various facets of pollution i.e. resulting from the drains sewage and finally polluting the river Yamuna very seriously.

After hearing the Learned Counsel appearing for the parties as well as Professor Gosain and Professor Brij Gopal we will divide this environmental issue into three different facets:

1. The first issue is related to the drains (natural or artificial) coverage thereof and the pollution resulting there from.
2. Steps that are required to be taken for ensuring and rendering Yamuna river free from pollution.

3. Restoration and beautification of the banks of river Yamuna

As far as all the above aspects are concerned and before the Tribunal passes any direction for ensuring pollution free Yamuna in NCT Delhi, it is necessary for the Tribunal to have certain specific data and suggestions before the Tribunal we hereby, therefore, constitute the following committee:-

- (a) An officer not below the rank of Joint Secretary from the Ministry of Environment and Forest
- (b) Member Secretary of the Central Pollution Control Board
- (c) Engineer- in-Chief, Delhi Development Authority
- (d) Member Secretary, Delhi Pollution Control Committee
- (e) Member (Drainage), Delhi Jal Board
- (f) Two Chief Engineers from South Delhi Municipal Corporation and East Delhi Municipal Corporation
- (g) Professor Gosain and Professor Brij Gopal

The above committee shall conduct the inspection and visit all or any of the places that they consider it appropriate and report as follows:-

- i. There are how many natural and or artificial drains in Delhi.
- ii. Drains which are joining the main Drains of Delhi directly or indirectly joining the river Yamuna.
- iii. How many of storm water drains are there and how many carry sewage jointly or separately.
- iv. How many STPs have been established in Delhi for treating the sewage or otherwise. The effluents/waste/sewage thrown/dumped in these drains. What is the present status of all the STPs? Are they functional and are working to their optimum capacity and their performance? At how many points, new STPs needs to be established? Whether it is possible to restore the existing STPs and make them functional to their optimum capacity suggestion in that regard?

The Additional Secretary, Ministry of Environment and Forests and Vice-Chairman of Delhi Development Authority shall hold the meeting within two weeks from today to ensure the compliance of these directions as well as to consider the proposal for restoration and beautification plan of Yamuna River banks submitted by the DDA before the Tribunal, merit

thereof or substitution of the entire scheme by another appropriate scheme.

We make it clear that the banks of river Yamuna would be left lie abandon areas and it should be ensured that no debris, construction debris or any other material including MSW is thrown into the river banks or even all along the drains of Delhi and the same is not used for human evacuation.

Let this report be submitted to the Tribunal. This Committee shall conduct its meeting at the earliest and would ensure that by the next date of hearing the report is placed before the Tribunal.

Liberty to the respective Corporations to remove the hurdles in the direct flow of the drains.

The South Municipal Corporation may examine all the possibility of restoration, greenery of the area near to Archana Cinema.”

36. During the course of arguments following issues were deliberated upon and were also noticed by us in our order dated 17th July, 2014, as would be evident from the following extract:

“Upon hearing the learned Counsel appearing for the parties and the Experts, we direct the Committee inter-alia to consider two major alternatives for ensuring pollution control and protection of river Yamuna therefrom, and restoration to its original natural status of being a river and not a drain.

(i) Whether it is advisable to install STPs of various sizes in all the outlets smaller and bigger i.e. each drain of Delhi or
(ii) it is more beneficial to prohibit discharge into Yamuna river of any sewage, domestic or trade effluents through the drains and all drains be connected to a new major drain which should carry the entire waste of Delhi to a destination where requisite treatment plant should be established to treat the waste, recycle semi solid and water for beneficial purposes.”

37. The Expert Members and the High Powered Committee found that it was not feasible and advisable to take recourse to the latter issue and the former option would be more feasible and would effectively control the pollution in river Yamuna. In relation to the

matters relating to drainage in Delhi, the Committee was put at a disadvantage because of non-availability of relevant data. Thus, the Tribunal directed that the drainage map of 1976, which shows the natural drains and man-made drains, should be taken as the basis for preparing recommendations in that report. Vide order dated 4th September, 2014, it was noticed that it was imperative for all authorities to work *in tandem* and co-operation, to achieve the object of making Yamuna free of pollution for the restoration and beautification of its flood plains. Both these aspects are essentially interlinked as making the drains of Delhi pollution free would automatically result in improving tremendously the quality of water in River Yamuna. Thus, the High Powered Committee, of which, even eminent Professors were members, was directed to hold its meeting and *inter alia* answer the following:

“A) The Committee constituted by this Tribunal shall expeditiously and in any case not less than one week from today hold a meeting and provide a clear answer on the following to the Tribunal:

1) Taking the 1976 drainage map of Delhi as the basis, the two maps submitted by Prof. A.K. Gosain today before the 1) Tribunal, one showing natural drains and other natural drains carrying sewage, are the correct documents to be the foundation for further progress of the Project.

2) Whether the drainage carrying sewage, (the storm water drainage) should or should not be permitted to carry sewage in any part of Delhi.

3) How many STPs are required and in what capacity?

4) There are nearly 201 natural drains and the majority of which are also carrying sewage which ultimately joins into the River Yamuna through 22 outfall points. Whether it will be technically feasible, taking all aspects into consideration including the geographical and economical parameters, to lay down a separate pipeline/open lined channel to carry the sewage from these 22 points to an appropriate distant place in Delhi where an STP of an appropriate capacity

should be established with proper utilisation of the remnant water or whether it will be more advisable to construct STPs on most of the drains carrying sewage to ensure that the same sewage waste is treated prior to its joining River Yamuna.

5) Lastly, the Committee should state as to what is the best methodology to be adopted to ensure that the sewage from the colonies where sewage treatment system does not exist as of today is appropriately brought to the STP plants and/or to the point of the major drains collecting the sewage. This is more particularly in relation to the unauthorised colonies of Delhi.”

38. It also needs to be noticed that the MoEF had constituted an Expert Committee vide its order dated 13th September, 2013. This Committee was to critically analyse and examine the YRFD Plan of DDA, steps to be taken for further improvement of river bank and also to consider other relevant aspects. This Committee submitted its report on these aspects on 19th April, 2014. Vide order dated 24th September, 2014, the Tribunal further directed that the report shall not only suggest the methodology or process that is required to be followed for restoration and beautification of riverbed, but, even state as to who should execute the work and the manner in which the work should be executed.

39. The Committees had filed interim status reports and final reports as well during pendency of the applications. These reports were prepared by the Committees on two facets: firstly on restoration, preservation and beautification of river banks and secondly on control of pollution in River Yamuna. In these meetings, representative from Engineers India Ltd, Central Pollution Control Board, Central Water Commission, National Disasters

Management Authority, Indian Space Research Organisation, DDA and other authorities were present and participated.

40. We may notice that the final report relating to 'preservation, restoration and beautification of River Yamuna' was finally submitted by the High Powered Committee on 19th April, 2014, while the other report relating to 'control of pollution and restoration of Yamuna river' by the Expert Committee appointed by the Tribunal, was submitted on 13th October, 2014. Both these reports shall constitute an integral part of this judgment.

41. This matter was listed for final hearing and was heard on different dates. Referring to their respective reports, Professor Brij Gopal, Professor A.A. Kazmi and Professor A. K. Gosain were present before the Tribunal and had explained the various aspects of their reports, as well as the need for prioritization for installation of various Sewage Treatment Plants (for short 'STPs') on the drains. After detailed discussions, it was found to be feasible and in fact the entire project was decided to be completed within two and a half years. After the matters were heard at great length, we reserved the case for judgment on 9th December, 2014. Vide the same order, the Tribunal had also directed CPCB, DPCC and a representative of the MoEF and the Delhi Jal Board to take samples of the drains joining River Yamuna from 10 different points from the 22 km stretch flowing in NCR Delhi and prepare baseline data for the purposes of determining the improvement or restoration of the water quality of River Yamuna as well as its banks.

42. We may notice here that even during the pendency of this application, directions had been issued to various authorities to act and take steps in accordance with law to protect River Yamuna and its banks. It was submitted by various authorities that huge construction debris and other waste that had been dumped at the river bank and riverbeds of Yamuna, have been removed. There is, according to all, a total check on dumping of fresh construction debris or waste on the riverbeds. It is hoped that the directions in this regard even in future would be strictly adhered to by all concerned.

Analytical discussion on merits and the reports of the Expert Committee

43. It not only seems, but, is virtually difficult to visualize the extent of pollution of River Yamuna, particularly in NCR Delhi. Some have called Yamuna, 'a drain', some as 'most polluted river' while others have termed it a 'dry river', except for in the monsoon season, when it only carries wastes of different kinds. These expressions may not sound very appropriate for a river which is the major source of human living and has religious sentiments attached with it, but when examined scientifically, these expressions are found to be having substance. River Yamuna, a major tributary of River Ganga, originates from Yamunotri Glacier near Bandarpunj peaks in the Mussorie Range at an elevation of about 6,320 meters above mean sea level in District of Uttarkashi, Uttarakhand. The catchment area of the River Yamuna covers parts of Himachal Pradesh, Uttarakhand, Uttar Pradesh, Haryana, Rajasthan, Madhya

Pradesh and the entire territory of Delhi. At Yamuna Nagar District of Haryana, the river is diverted into Western Yamuna Canal and the Eastern Yamuna Canal for irrigation. River regains its water from ground water accrual and feeding canal (Drain No.2), downstream of Karnal, before it enters Delhi, near Pala Village. Yamuna River within NCR is classified into five distinct segments due to its characteristics, hydrological and ecological conditions. All these five segments have different sources of water and waste water. In the Delhi segment of Wazirabad Village at Okhla, nearly a segment of 22 kilometers, it only get domestic and industrial waste water of Delhi and thus, is the most polluted segment. The CPCB has placed on record state-wise contribution of waste water generation in the cities located on the banks of Yamuna. The figures in this statement are astonishing. It shows that in Delhi the length of the River is 48 kms, forming merely 3% of the total length of this river, before it joins the River Ganga. However, the sewage generation is 3,800 MLT, forming 76% of the pollutants put into the River Yamuna. Keeping in view the fact that the Yamuna River is not a continuous river, especially during dry months between October and May, the situation is bound to get worse. This situation stares all concerned, including the Government in face and leads only to one question: "Would it ever be possible to clean River Yamuna and restore its wholesomeness?" This question can safely be answered in the affirmative. But all that is needed is the concerted effort from all stakeholders and a positive participation from the residents of NCR, Delhi. No process can prove to deliver

the desired results unless and until the persons involved in carrying on the process as well as the people for whose benefit the process is being set up, fully cooperate and ensure adherence to the prescribed methodologies.

44. The Expert Committee has opined that 32 STP's ought to be installed at minor and major drains of Delhi, in addition to the existing STP's. Once these proposed STP's are established and made operational, the drains are kept clean and it is ensured that sewage does not enter these drains, restoration of Yamuna to its original status is completely an achievable goal.

45. The Tribunal while accepting the reports of the Expert Committees, not only critically examined the reports and recommendations but even considered other alternative proposals to make River Yamuna pollution free. One of the main suggestions was with regard to laying down of an independent pipeline on the banks of River Yamuna, where all the drains carrying sewage, industrial waste and trade effluents would join it. This pipeline shall carry such waste to a designated destination near Agra Canal, where it shall be treated. The treated water shall be recycled for industrial and agricultural purposes. This suggestion was found to be not practicable for variety of reasons by the expert bodies. Firstly, it may become unworkable during the monsoons for high level of water and its pressure. Secondly, the pipeline itself may get choked or blocked because of the effluents containing variety of wastes including solid waste. Further that laying down of such long pipeline in the river bank may not be ecologically advisable.

46. We have accepted these final reports after due scrutiny and keeping in view all the practical aspects including financial implications. The only viable way to clean River Yamuna and its river beds is to implement these reports without default and demur with the amendments and additions that have been made by us in this judgment. Another advantage of accepting this report is that the infrastructure of existing STP's would come handy and can be effectively utilised for treatment of the sewage and ensuring removal of pollutants. According to Delhi Jal Board, there are 23 STP's planned and existing as of today in Delhi. These include one STP that is proposed to be established at Delhi Cantt. Other STP is stated to be under construction and is likely to commence in the year 2014-2015. The oxidation pond at Timarpur is proposed to be closed which was commissioned in 1947. There is a STP at Okhla which was commissioned in 1937 and four STP's at Kondli are lying closed due to inadequate sewerage. Majority of the STP's are not operating to their optimum capacity and some of them are not functioning properly for a variety of reasons. Thus, the entire STP infrastructure, if made fully functional, can be utilised to support and aid the effective implementation of the project under the Expert Reports. Only 32 additional STP's are required to be established and made operational for complete treatment of sewage which is generated in Delhi. Under this project, total of 55 STP's are required to be established and made operational. Out of them, 22 STP's are already in place. However, they are not operating to their optimum capacity. This itself, places the entire project at a great advantage

as the investments already made would not be wasted and would form integral part of the comprehensive project. However, it is essential that Delhi Jal Board takes all steps without any further delay to ensure that the existing 23 STP's are made functional effectively and operate to their optimum capacity.

47. Ancillary corollary thereto is recycling and reutilization of the water that would be discharged from these STP's after treatment of the sewage. This would not only help in providing usable water for horticulture and industrial purposes for which there is a great shortage in Delhi, but, would also minimize the discharge into River Yamuna, preventing its pollution on the one hand and furthering the cause of its restoration on the other.

48. We may also advert to existence of high pollutants in River Yamuna. Analysis Reports have been submitted by the CPCB of the various samples showing water quality in main 18 drains of Delhi. The samples were collected by the Board from 19th November, 2013 to 18th October, 2014 at different dates on different intervals and from all the 18 drains of Delhi (Najafgarh + Supplementary drain, Magazine Road drain, Sweeper Colony drain, Khyber Pass drain, Metcalf House drain, ISBT + Mori Gate drain, Tonga Stand drain, Kailash Nagar drain, Civil Mill drain, Delhi Gate (power house) drain, Sen Nursing Home drain, drain number 14, Barapulla drain, Maharani Bagh drain, Abu Fazal drain, Jaitpur drain, Tuglakabad drain and Shahdara drain). Most of these drains are found to be highly polluted and are releasing much higher quantity of BOD. Even presence of heavy metal was noticed. We would only be

referring to the high content of pollutants in the respective drains which would sufficiently indicate the dimensions of the environmental problem and its seriousness which we are dealing in the present case. For instance, Magazine Road drain carries 593 mg/l Chemical Oxygen Demand (COD) as opposed to the prescribed value of 250 mg/l. Tonga Stand drain, Kailash Nagar drain, Delhi Gate (Power House) drain carries the COD content of 810 mg/l, 547 mg/l and 633 mg/l respectively, as opposed to the same prescribed value of 250 mg/l. As far as Suspended Solids in mg/l is concerned, the prescribed limit is 100 mg/l, while the Shahdara drain, Delhi Power House drain, Kailash Nagar drain, Tonga Stand drain, Khyber Pass drain and Magazine Road drain are carrying 405 mg/l, 845 mg/l, 373 mg/l, 953 mg/l, 581 mg/l and 329 mg/l respectively. In this very report, it has been shown that metals like Chromium (Cr), Copper (Cu), Iron (Fe), Nickel (Ni), Lead (Pb) and Zinc (Zn), are the metals out of which, all or few of them, have been found to be present in all the 18 drains. Such high levels of pollutants in River Yamuna, are indicators of the likely environmental and health hazards, which will result from direct or indirect use of the Yamuna water. Large scale agricultural activity on the river bank or floodplain, is one of the glaring examples of indirect impacts of environmental pollution. The vegetables grown in these areas, for which the direct source of irrigation is the ground water or water flowing in River Yamuna, are bound to be contaminated. We have noticed in some detail the serious health hazards, including diseases like cancer and other serious diseases,

from which the persons consuming such products may suffer. Thus, the agricultural activity needs to be stopped immediately to prevent further environmental and health hazards and in any case till the time Yamuna is restored to its original status and carries only wholesome water or the water which can be used for irrigation purposes, without exposing the residents of Delhi to serious diseases and health hazards. We have already noticed the disputes that are pending between the lessees of land, falling in the river Flood Plain, but, that would either way be inconsequential against the issues of environment which have to take precedence over the individual rights. Most of the lessees do not have subsistent rights, therefore, they cannot be permitted to continue the activity to raise agricultural produce, which would be seriously injurious to human health. This fact is fully substantiated by the data placed before the Tribunal which shows that the drains joining River Yamuna and even Yamuna itself, carries heavy pollutants, including the heavy metals. On top of that, pesticides are being used and sprayed over the agricultural produce, which only makes them worse for human consumption in regard to the injury that they would cause to human health. Unless the river is restored to its original health, the agricultural activity would result in seriously jeopardising the environment as well as human health. The period involved in the restoration under the project approved by the Tribunal is not very long. The prohibition is not of permanent nature but is only for a limited period of two and a half years. Certainly for the good of the society and in public interest such restrictions can safely be

imposed in consonance with the provisions of environmental laws in force in the country.

48. As we have already indicated the entire stretch of River Yamuna through NCT Delhi and its border with Uttar Pradesh is 52 kms. This stretch has been divided into three main sections. First is of 26 kms. from village Palla to Wazirabad, which is largely rural in character. Generally, it is in its natural state, except marginal bunds on its two sides and has growing urbanization on the UP side. On this stretch the river and its Flood Plains together span 1.5 km to 4 km.

49. The next stretch of 22 kms is from Wazirabad Barrage to Okhla Barrage. This section is highly urbanized, with the river and its Flood Plains greatly compromised. Flow of the river is further impeded by the ITO Barrage and 9 bridges and flyovers resulting in the river and its flood plain getting restricted to as low as 800 m strip in some places. The last stretch of 4 to 5 kms is from Okhla Barrage to village Jaitpur. This stretch has developed rapidly, both on Delhi and UP side; its flood plain either being encroached by settlements or intensely degraded by stone crushers, resulting in the river and its floodplain reducing to 800 m to 1.5 km width.

50. It cannot be disputed and in fact, has not been disputed that the present status of Yamuna is only of a sewer, due to lack of fresh water flow, discharge of untreated or partly treated domestic and industrial waste and due to dumping of debris on its banks and in it. Its flood plains are highly truncated and degraded, resulting in depletion in most of its natural bio-diversity. It has been submitted

before the Tribunal that around 37000 cu. m. on the Eastern bank and around 53000 cu.m. on the Western bank is the quantum of debris which was lying on the banks River Yamuna. Of course, majority of this has already been removed under the directions of the Tribunal and steps have been taken to identify such sites. Still little part of debris, consisting of construction and other debris remains. Steps need to be taken not only to remove the remaining part of debris and clear the river banks absolutely, but also to prevent and ensure that there is no fresh dumping of debris in the entire stretch passing through National Capital Region (for short, 'NCR'). Huge dumps and encroachments of the river banks were noticed by the Expert Committee constituted by the MoEF, during their visits to these sites. Private persons, authorities and even bodies like DMRC had contributed to encroachments and dumping, which was rampant. Thus, the Committee recommended that:

1. All solid waste dumps, including those used for roads and bunds, within the active floodplain should be removed forthwith.
2. All solid waste recycling units, farm houses, cattle farms and nurseries must be relocated at the earliest.
3. Construction of new bunds, roads and guide bunds, widening of existing bunds, spurs and guide bunds within the active floodplains should be stopped and banned.
4. No filling of the floodplain / riverbeds be allowed in the name of development and renovation of ghats. The floodplain under built up areas at Sur Ghat and Quedsia Ghat should be

recovered. All recreational facilities for people visiting ghats should be created close to the embankments/roads where a channel taken out from the water course of the river can be brought for the purpose.

5. All settlements encroaching upon the floodplain (with the exceptions noted in the detailed report) should be relocated at the earliest.

6. Construction of new barrages and roads, railway and metro bridges, and embankments and bunds should not be permitted. In exceptional cases, a critical assessment of their potential impacts on flood aggravation and environmental clearances should be made mandatory.

7. There is a shortage of landfill sites in Delhi. Immediate action is required to identify additional landfill sites catering to the next 25 years of requirement. Action is also required to identify more sites for recycling of building material waste.

51. Unauthorised activities are being carried out on the floodplain and at some places they have even encroached up to the riverbed of Yamuna. Agricultural products raised from these areas have shown to be injurious to human health, primarily for the reasons that the river carries very high pollutants, including heavy metals and acidic elements. One of the studies brought on record which is even supported by the United Nations, is the first to link river contamination with adverse impacts on human health. According to this study, around 23% of children had lead levels in their blood above 10 micro grams – a widely accepted guideline – whose

adverse health effects have been noted. The study said high level of lead in blood was eight times more when exposed to the riverbank after Wazirabad in north Delhi, compared to rural areas upstream in Haryana, where river water contamination was found to be less. Heavy metals such as lead are more readily absorbed by children as compared to adults. The resultant disasters would be impairment of motor skills, onset and development of hypertension and may even result in slow cognitive development. Water and soil samples were lifted every 2 km, starting, from Wazirabad Barrage and covered 22 km of the river in the capital. The presence of heavy metals increased after Wazirabad even though every drop of water that flows in the river in Delhi has to be cleaned through Sewage Treatment and Effluent Treatment Plants. Presence of heavy metals was negligible in Haryana. Hexavalent chromium, said to be hazardous was found to be highest at Old Yamuna Bridge and Indraprastha Estate Power Plant. This is the area where maximum vegetables are grown on riverbed. At this point there is also heavy industrial discharge into the river.

52. Agricultural activities must be carried on as it is essential for our day to day living, but, agriculture produce that will lead to greater harm to human health must be checked and if necessary should also be stopped. The principle of 'Inter-generational Equity' would require that today's younger generation should not be exposed to serious health hazards and thus, it will not only be desirable but essential that such contaminated produce/vegetables are not offered for consumption to the people at large. The Principle

of Comparative Hardship would clearly mandate that where the injury is much greater in proportion to the benefit that would accrue as a result of such activity, the activity must be stopped in the larger interest of the public and of public health.

53. The health of the public is a matter which ought to find absolute priority in the agenda of proper governance by the State. Right to health is a part of the right to life guaranteed by Article 21 of the Constitution of India. Where the planning processes are left to the government and to the public bodies, it is inherent that overriding considerations of public health and danger to life must be issues to which top priority consideration is bestowed. Where there is a failure in this regard, the Courts will have to step in. Nothing can be more fundamental than the issue of public safety and public health. No amount of technical pleas can justify a situation where a large number of people are exposed to health hazards because of industrial or any other activity, causing pollution of air or water. Unfortunately, as the sad situation may be, River Yamuna - the main source of drinking water supply - was stated to be the free dumping place for untreated sewage and industrial waste, as back as in 1996 (Ref.: State of Panjab & Ors. v. Mohinder Singh Chawla & Ors., (1997) 2 SCC 83, Bayer (India) Ltd. & Ors. v. State of Maharashtra & Ors., AIR 1995 Bom 290, Dr. B.L. Wadhera v. Union of India Ors., (1996) 2 SCC 594).

Thus, as of today, the Tribunal cannot ignore the extreme pollution of River Yamuna and its consequential adverse impacts on health of residents of Delhi.

54. We may also notice that an application being M.A. No. 275 of 2014 had been filed before the Tribunal where the applicants referred to large scale pollution of River Yamuna which resultantly has led to the contamination of food crops grown in the area, soil pollution, ground water contamination thereby adversely affecting the human health. River Yamuna is a major tributary which forms a large part of the larger River Ganga system. Applicants have claimed that such pollution in the River Yamuna is contaminating the vegetables grown on its banks. Some of the news articles have even described this river as “Yamuna, the poison river”. Moderate levels of toxic metals (nickel, lead, manganese, chromium and zinc) were evident in the water at several locations. At one particular location lead levels were found 10 times more than anywhere else in the river and in another location near a thermal power plant, mercury concentration was 200 times more than determined by the United States Environmental Protection Agency. The study reveals that industrial effluents and untreated sewage continue to choke the river. The amount of Faecal Coliform - bacteria available in human and animal faeces – has grown by as much as 30 times as compared to the CPCB values. The applicants have annexed various articles and photographs in support of their averments. The study titled “Anthropogenic Arsenic menace in Delhi Yamuna Flood Plains” showed that the maximum concentration up to 180 ppb was found in the groundwater. Analysis of around 120 water samples collected extensively along the Yamuna Flood Plain showed that more than 55% had arsenic contamination beyond the WHO limit of

10 ppb. Thus, the applicants prayed for preparation of proper reports by the concerned authorities and for stopping the pollution and contamination of water and river bank of Yamuna and its tributaries. MoEF had filed a reply to this application where, in paragraph 3 they stated that presence of higher level of pesticides, heavy metals and other harmful matters in vegetables/vegetation grown in river bank of Yamuna, is attributed to discharge of treated / untreated municipal sewage & industrial waste water into drains / river Yamuna and excessive use of agrochemicals in agricultural activities. Though, according to them the CPCB ought to have taken different measures for controlling the said activities.

55. Besides this, we must notice the contention raised on behalf of the DDA in this regard. The Learned Counsel appearing for the authority submitted that the lands in question fall within the floodplain and/or river bed of Yamuna. These are entirely government lands and do not consist of any private lands. Some of these lands were being used under the lease granted by the DDA for agriculture/fodder produce. However, the DDA has now already terminated all the leases, while the Estate Officer has already passed orders of eviction. The DDA was also taking action in furtherance to the said orders. Some of the lessees have invoked the jurisdiction of the Delhi High Court against the orders of the Estate Officer, wherein the matters are pending before the High Court. According to him, these matters relate only to the limited right that the applicants are claiming in those cases and have nothing to do with the kind of activities carried on by them, which can always be

prohibited in terms of the provisions of the Act of 1986. We find merit in the contentions raised on behalf of the DDA, of course, subject to such orders as may be passed by the High Court of Delhi. Even if these persons have an interest in the land, they cannot carry on an activity which is environmentally improper and is completely injurious to human health, just to make some money. Section 5 of the Act of 1986 clearly empowers the Boards and/or MoEF to prohibit such activity which is injurious to environment and human health.

56. The Expert Committee, in its report dated 19th April, 2014 stated that it had more than 6 meetings and conducted site visits. The Committee also critically evaluated the available information relating to rejuvenation, development and management of River Yamuna, particularly, with respect to the 52 km stretch of NCT of Delhi and the portion relating to the State of Uttar Pradesh and recommendations of different Authorities and Committees constituted by the Government and agencies differently. The Committee also generated 1:1000 resolution maps on GIS platform using 2010 data sets supplied by GSDL on different aspects of the river ecosystem and flood zoning was also undertaken using digital model. The High Powered Committee constituted by the Tribunal with the Secretary, MoEF as Chairperson, had also constituted Expert Committee and sub-Committee to examine various matters in this regard. Experts were chosen by the MoEF and it had also deputed its own experts and scientists to examine these various

aspects. This is how all the above reports came to be submitted before the Tribunal from time to time.

57. As already noticed above, vide order dated 13th September, 2013 passed by the Tribunal, the Expert Committee was required to examine and critically analyse the Yamuna River Front Development Plan of the DDA as well. This was done by the Committee. This Plan of DDA is an 'Integrated project of recreational areas along with bio-diversity parks, in four of the sub-zones of the 'O Zone'. The area proposed for the implementation of Yamuna River Front Development (YRFD) scheme by the DDA, is the active Flood Plain which is frequently flooded by medium floods. According to the Expert Committee, the proposed activities such as construction of various recreational and public facilities, by effecting topographic changes, will reduce the flood carrying capacity and aggravate flooding, besides contributing to pollution. Development of the flood plains has to be strictly done, while keeping the biodiversity intact and ensuring that no major and impermissible construction activity is permitted on the flood plain. Biodiversity parks could be made at suitable locations, for example, sub-zone IV and sub-zone VI, as recommended by the Expert Committee in its report. The Committee has specifically noticed that the flood carrying capacity of the river has been considerably reduced due to encroachments and waste dumps resulting in flooding of its banks every year and this was also reported by NEERI in its report of 2005. The Committee has suggested that new wetland habitats should be created for biodiversity

conservation, wherever feasible and inter-connectedness between wetlands for water movement and exchange should be promoted. The Expert Committee, for the reasons stated in its Report, suggested that the YRFD plan of DDA is untenable and should be stopped. It has already been placed on record that the DDA itself admits in their proposed re-delineation of 'O Zone', in terms of the public notice issued by it on 28th September, 2013, that the 'River Front' refers to an area that lies outside the embankments of a river, but the area of the proposed YRFD plan is within the active floodplain. Thus, it is recommended that this YRFD scheme should be replaced by another plan for restoration of the river and its floodplain, as suggested by the Expert Committee and accepted by the High Powered Committee. We direct that all the recommendations of the Expert Committee, including the above, should be implemented without any further delay.

58. This report has been examined by the Tribunal and we are of the considered view that the DDA should not proceed further with its YRFD scheme and the recommendations of the Expert Committee as accepted by the High Powered Committee should be implemented. We order accordingly. Preservation, restoration and beautification of River Yamuna and its banks would not achieve the desired results, unless effective steps were taken to ensure that the riverbed is neither encroached nor any kind of waste (construction debris, municipal waste or any other waste) is dumped at the banks of River Yamuna. The Expert Committee's recommendations, as accepted by the High Powered Committee, were that the 'O' Zone as

defined in the MPD, 2021 and as delineated in the report dated 19th April, 2014, together with the corresponding part of the River and its active floodplain, within the embankments on the UP side on the east, should be designated as the River Zone. The river zone so designated should be preserved and protected for the conservation and restoration of the river and no development activity should be permitted within the river zone that encroaches upon the active floodplain, obstructs the flow or pollutes the river.

59. Having considered all aspects and the Expert Committee Report before the Tribunal, the Tribunal is of the considered view that till Yamuna is rejuvenated and is restored to its wholesomeness, agricultural activities on the flood plain/ 'O' Zone should be strictly prohibited. The concerned authorities should ensure that the vegetables grown on this belt are not permitted to be sold in the market. The Association of such vegetable market should be informed of this prohibition and the MoEF should issue directions forthwith, prohibiting the production and sale of vegetables from this area with immediate effect.

60. Some of the Municipal Corporations on their own have taken steps to concretize the drains as well as to cover them. In some parts of Delhi, particularly, in relation to the drain in Defence Colony and other parts of South Delhi, drains have been covered to some extent. In other places, the work has just started while in other places, a very meagre part of the work has been executed. According to the report of the Expert Committee, covering of drains in Delhi would have very serious adverse impacts upon the

environment and ecology of Delhi. This would result in more flooding, explosion of diseases and clogging of drains.

The Expert Committee noticed that the storm water drain system is designed to carry the rain water only and also to allow recharge in the ground water through its drainage system, as well as through other bodies. It stated that the storm water drain system has been designed based on the good engineering practices and taking average intensity of rainfall as 1 cusecs per acre. The storm water drain system should carry rain water and nothing else to maintain the ecology and environment. Ideally, the storm water should flow through its designed natural drainage system and sewage through sewerage network and finally treated at STPs before it is finally disposable into the river. They proceeded to notice with approval the policy decision taken by a Committee chaired by the Chief Secretary, Delhi in respect of the various drains as circulated by Circular dated 25th February, 2014 which inter alia provided as under: -

“1. Natural drains: Natural drains are those drains which are naturally occurring, formed by the watershed of the area draining into it and have been existing naturally with a fully unlined base originally. Although many modifications have been made to the natural drains over the years through lining, covering etc. these drains would still continue to be considered as natural drains. The policy in r/o natural drains shall be as under:

- a. The natural drains shall neither be lined (concretising the surface) nor shall they be allowed to be covered in any case.
- b. The number of the natural drains will be confined to the list of such drains contained in the MPD 2021.
- c. Construction of elevated road along these drains without affecting the aesthetics, flow of drain and

without hampering cleaning of the drain may be allowed. Similarly, service road and NMV track along the drain may also be allowed provided it does not in any manner affect the flow, cleaning of the drain and aesthetics of the area.”

The said policy has also found favour with the High Court in W.P.(C) No. 2385/2011.

The Committee, thus, has recommended that there should not be any concretization or covering of drains particularly natural drains in Delhi. According to the Committee such course is not technically feasible and is not in the interest of ecology and environment.

61. Upon its examination, the view expressed by the Expert Committee is not only acceptable, but is in consonance with the settled principles of ecology. The natural drains cannot be permitted to be concretised or covered, as it would not only destroy the flora and fauna but would even destroy the ecology of the entire area. We are in the agreement with the reasons given by the Expert Committee that it is neither appropriate nor in the public interest to permit Corporations to concretise and cover all the natural drains of Delhi. In order to prevent wastage of public funds which have been spent recklessly, even though without proper application of mind and after consideration of requisite data, we would permit the Corporations to keep intact the construction done so far on the drains, particularly, where the work has fully been completed in all respects and they have already been covered. However, where work has just commenced or just a partition wall has been erected, in our considered view all this work should be dismantled, especially,

where only *saria* (iron rods) have only been fixed. Iron removed from these places can safely be used in construction of other projects by the Corporations, including construction and setting up of STP's and allied infrastructure. Thus, it would cause minimum, albeit unavoidable waste of some public money. M.A. No. 88 of 2014 has been filed by a Resident Welfare Association praying for directing the Corporations to protect the environment, remove pollutants and prevent encroachments from drains. The Corporations or such authorities are liable to be directed to clean all the drains of Delhi not only of the area pertaining to the applicant, but also ensure that the drains are kept clean and obstruction free in the entire NCR. Proper legal action should be taken against the persons who throw any Municipal Solid Waste, including plastic etc. into these drains. The Corporations and concerned authorities should provide dustbin/containers of appropriate size and give due incentive to the citizens as well as cleaning agencies, for dumping the municipal or any other solid waste into the big dustbins, from where the same should be transported for disposal in accordance with the Rules of 2000. The Corporations can certainly take steps to beautify and maintain the banks of such drains, for which the residents should be required to participate and ensure proper maintenance of the drains and their surrounding areas. We are not oblivious of the fact that it may not be possible for the NCR Delhi to incur the entire financial liability of this project in the current year. The project is proposed to be completed within two and a half years. Thus, the expenditure can be spread over that period. In any case, there

appears to be no financial constraint on the DJB and other concerned authorities, as it has been conceded before us that Rs. 20,000 Crore is the planned budget for providing of network of water and sewage in the entire Delhi for the coming five years, commencing from the year 2012-2013. Pipeline and sewage is to be laid for 9,000 kms in the 2000 odd colonies of Delhi. The establishment of STP's is also covered under this planned expenditure. Out of this amount, Rs. 1000 Crore has been earmarked for water network and Rs. 1031 Crore for sewage network, for the current year. Similar amount is also provided for the financial years 2014-2015 to 2016-2017. This being the financial status, we do not foresee any difficulty in provisioning of adequate funds for timely completion of this project. In fact, the DJB and the concerned authorities would have ample finances at their disposal within the ambit of the already provided planned expenditure. Besides that, we have also granted liberty to the Corporation and the DJB to collect funds from the general public on the 'Polluter Pays' Principle. The safest criteria for determining the quantum of environmental compensation payable by people of Delhi, would be the certain percentage of the property/house tax payable by an individual. It may be noticed that certain kind of charges like education cess, sewage tax and certain other charges, do form part of the property/house tax payable by individuals, thus, environmental compensation can also form part of such property/house tax. But this, we would leave primarily at the discretion of the authorities concerned. They may or may not

impose such charges if there are more than adequate funds available with the DJB and the NCT Delhi for completion of the project.

62. Another facet which calls for attention of the Tribunal is that all the natural and manmade drains in Delhi should be kept clean, free of obstruction and dumping of any material or municipal waste, in or around them should be strictly prohibited. It has been submitted before us that besides the existing 157 natural drains which have been identified by the Expert Committee with reference to the 1976 Drainage Map of Delhi, around 44 drains are not traceable. It is important that the said untraceable 44 drains should be traced and a definite report is submitted to the Tribunal, for two reasons. Firstly, if these drains are traced, then they could be kept clean and obstruction free and if any additional STP or ETP is required to be provided on any of them, timely steps in that regard could be taken. Secondly, if these drains are existing and are covered, while being connected to such colonies which do not have STP and are discharging their sewage into such drains, then it is bound to affect the success of the project adversely. Therefore, the Principal Committee should trace and/or cause to be traced, these 44 drains and submit a status report in that regard to the Tribunal. After submission of such report, if any further directions are necessitated, the Tribunal would pass such directions.

63. To keep the matters beyond ambiguity and with reference to the report filed on behalf of the South Delhi Municipal Corporation and the photographs annexed thereto, we direct that no further

construction work would be carried on in the G.K-I drain and all the iron rods, especially in the middle section of the drain, shall be entirely removed. The part of the drain which has been covered would be permitted to remain, while it will be ensured that the same is neither occupied by unauthorised occupants nor is used as a platform for dumping, as is even evident from the photographs submitted by the Corporation. No further construction work would be carried out in the Andrews Ganj drain and the entire middle section where iron bars are visible shall be removed. On the Chirag Delhi drain, no work appears to have been done as shown in photographs and only iron bars have been fixed on one side of the drain. The entire iron bars shall be removed and no construction shall be carried out on the drain. In Pushp Vihar, the drain which is already covered need not be demolished, but the iron bars which have been fixed in the portion ahead of the covered area, would be removed and the drain would be made obstruction free and not divided. The iron so removed, shall be used for other construction works by the Corporations/authorities concerned. The wall on one side of the drain that has been constructed would not be demolished. However, it should also be ensured that the covered part of the drain, even at Pushp Vihar, is not used as a platform for unauthorised occupation or dumping of waste.

64. The Act of 1986 was enacted by the Indian Parliament for protection and improvement of environment and to implement the decisions taken at the United Nations Conference on Human Environment at Stockholm in June, 1972. The rapid decline in

environmental quality that was evidenced by increasing pollution, loss of vegetal cover and biological diversity, excessive concentrations of harmful chemicals in the ambient atmosphere and in food chains, growing risks of environmental accidents and threats to life support systems, were the main aspects that weighed with the Legislators to enact various environmental laws. The Water (Prevention and Control of Pollution) Act, 1974 (for short 'the Water Act) and the Air (Prevention and Control of Pollution) Act, 1981 (for short 'the Air Act') intend to provide pristine water and clean air on one hand, while on the other, place a statutory obligation upon the industries or units intending or carrying on any industrial or other activity where they emit gases or smoke in the air or trade effluents in the land/water/stream etc., not to operate without consent of the concerned Pollution Control Boards. In other words, they are mandated by law to adhere to the prescribed standards of emission and discharge of trade effluents. Where they intend to prevent and control pollution of air and water, there they give a statutory right to the citizens of India to claim clean environment.

65. The most significant event in the recent past of the Indian environmental jurisprudence, was the declaration of the Hon'ble Supreme Court that right to decent and clean environment was an essential feature of right to life as enshrined under Article 21 of the Constitution of India. The dictum of the Supreme Court of India in its various judgments, not only declared it to be a fundamental right, but commanded the States to discharge its constitutional

obligation for providing a cleaner environment, as its contamination was of a very high degree (Ref: *Vellore Citizens Welfare Forum v. Union of India and others*, (1996) 5 SCC 647, *Tirupur Dyeing Factory Owners' Association v. Noyyal River Ayacutdars Protection Association*, (2009) 9 SCC 737 and *M.C. Mehta v. Union of India and Ors.*, (2009) 6 SCC 142). The judgments of the Supreme Court, of course, were with reference to the facts and circumstances of a given case, but the golden principle underlining these judgments was uniform, i.e. protection and improvement of the environment. The Supreme Court in its judgments even rejected the plea of the State that lack of availability of finances at a given point of time could be an available defense, for not taking effective steps for providing a cleaner environment. In this regard, reference can be made to the judgment of the Supreme Court in the case of *Ashok Kumar Thakur v. Union of India*, (2008) 6 SCC 1, wherein the Supreme Court held:

“It is to be noted that financial constraint cannot be a ground to deny fundamental rights and the provision for the schemes and the utilisation of the funds are also relevant factors. It appears that better coordination between the funds provider and the utiliser is necessary.”

66. The concern of the framers of the Constitution for environment is not only exhibited by introduction of Article 48A by the 42nd Amendment Act of 1976, but also by Article 51A(g) of the Constitution, which places a fundamental duty upon the citizens to protect and improve the natural environment, including forests, rivers, wildlife and to have compassion for living creatures. Therefore, the law declared by the Supreme Court of India, mandate

of the Constitution and the statutory rights and obligations, are *ad idem* to the mandate that there has to be protection and improvement of environment and all must contribute to provide decent and clean environment. United Nations conference on Environment and Development held at Rio-de-Janeiro in June, 1992, in which India participated had also called upon the States to provide effective access to judicial administrative proceedings, including redress and remedy and to develop national laws regarding liability and compensation for the victims of pollution and other environmental damage. The States in discharge of their above obligation have enacted the National Green Tribunal Act, 2010, which provides for access to specialised environmental justice in the country. This Tribunal has been established for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources, including enforcement of any legal right relating to environment and giving relief and compensation for damage to the person and property and for matters connected therewith and incidental thereto. The primary object of establishing this Tribunal is to provide easy access and expeditious dispensation of environmental justice. The legislature in its wisdom has vested wide jurisdiction in the Tribunal to ensure that major spectrum of environmental jurisprudence are covered, so as to render effective and concerned decisions in the field of environment.

67. It is expected of the Tribunal to deal with the multi-disciplinary issues relating to environment. Section 20 of the NGT Act reads as under:

“The Tribunal shall, while passing any order or decision or award, apply the principles of sustainable development, the precautionary principle and the polluter pays principle.”

68. A bare reading of the above provision makes it amply clear that in exercise of its varied jurisdictions, i.e. original, appellate and special jurisdiction, the Tribunal is to be guided by the three well-settled canons of environmental jurisprudence. These principles being a part of the statute that created this Tribunal, the obligation upon this Tribunal, to ensure that cases before it are expeditiously disposed of, in line with these principles, is greater. In other words, these principles are the very foundation of the determinative process before the Tribunal. The Principle of Sustainable Development takes within its ambit the Principle of Intergenerational Equity. In fact, all these three principles, i.e. the Precautionary Principle, the Polluter Pays Principle and the Principle of Sustainable Development have to be collectively applied for proper dispensation of environmental justice. In the case of *Tirupur Dyeing Factory Association case* (supra), the Hon'ble Supreme Court observed that the 'Polluter Pays' Principle and Precautionary Principle itself have to be read with the doctrine of Sustainable Development. Normally, they are applied collectively depending upon the facts and circumstances of case. Restriction is an inbuilt fact of Sustainable Development and that itself serves the cause of Intergenerational Equity. Sustainable Development means

the development that can take place and which can be sustained by the nature and ecology with or without mitigation. In such matters the required standard is the risk of harm to environment or to human health and has to be decided in public interest, according to a 'reasonable person's test'.

69. The Supreme Court in the case of *Vellore Citizens Welfare Forum* (supra), referred with approval, the concept of development to say that the traditional concept that development and ecology are opposed to each other is no longer acceptable. Sustainable Development is the answer i.e., development that meets the needs of the present without compromising the ability of the future generations to meet their own needs. It is intended to improve the quality of human life, while living within the carrying capacity of the supporting ecosystems. The 'Precautionary' Principle and 'Polluter Pays' Principles were, therefore, said to be the essential features of the Principle of Sustainable Development.

70. We have referred to the Principle of Sustainable Development only to illustratively repel the contention that development on the banks of River Yamuna is necessary by raising constructions of the kinds which were contemplated by the DDA and even suggested at the Bar. This reasoning would equally be applicable to the concept of covering of natural storm water drains. Unquestionably, Yamuna is a very polluted river and it hardly contains water, which could be used for many useful purposes, including agricultural activities. Its water is unfit for human consumption and even for industrial

purposes. Steps have to be taken to restore Yamuna to its original salubrious and pristine form.

71. Before we examine the applicability of the three statutorily stated Principles to the present case, we must refer to the project and the manner in which it is to resolve these serious environmental issues and achieve the object of revitalizing River Yamuna.

72. The entire issue could be identified into two segments, which are the primary sources of pollution of River Yamuna. The first, pollution resulting from discharge of industrial and trade effluents; and the second, sewage and domestic discharge and untreated waste entering the River Yamuna through different drains. The installation and operationalization of CETPs for all industrial pockets of Delhi, would take care of treating the trade and industrial effluents before it is permitted to join any drain. As of date, in some industrial clusters CETPs are in existence, but are not working to their optimum capacity and effectively. Thus, it is required that all the industrial clusters in Delhi should have a CETP which has to be established and made effectively operational by the concerned authorities, particularly the DJB and other Corporations and authorities in-charge of industrial clusters under the guidance of the Principal Committee. Wherever they are in existence, it should be ensured that they should work to their optimum capacity and effectively, to prevent and control the pollution resulting from discharge of industrial/trade effluent of that industrial cluster. The new CETPs that are to be installed

must be established keeping in view the manufacturing and production activities of the industries within that industrial cluster. It should be ensured that the treated effluent is strictly in consonance with the prescribed parameters and does not carry any hazardous ingredients, particularly, heavy metals. We also direct that the authorities concerned would require each industry to contribute for the establishment, maintenance and operationalization of such CETPs. The criteria has to be the quantum of production/manufacture, nature of process and consumption of water and electricity by such industrial units. Such industrial units within a particular industrial cluster have to pay these amounts on the 'Polluter Pays' Principle, for the pollution already caused by them and even which they are causing presently, as well as to prevent pollution in future on the Precautionary Principle. Major part of such costs, obviously have to be borne by the authorities concerned, let us say 2/3rd, while 1/3rd of the total costs should be borne by the industries.

73. Once all the new 32 STPs are established and made effectively operational and all the existing STPs (21) are set in order and they operate to their optimum capacity, then the entire sewage and domestic discharge from all the colonies of Delhi, through nearly more than 157 drains, would stand treated. This treated discharge then has to be re-used, recycled for supplying water for industrial and agricultural purposes. In other words, the treated sewage and domestic discharge would have only remnant water, which is not to have pollutant elements and even odour for that matter. Keeping in

view the demand of water by industrial and agricultural sector of Delhi, larger part of the treated discharge would stand recycled, reutilized and a very small remaining part would be discharged into the River Yamuna. The environmental flow of Yamuna would be maintained, which will be preceded with controlled dredging, required to remove huge accumulation of sediments, sludge and debris. Upon completion of this project, River Yamuna would stand restored to its crystalline and pristine form and would provide clean and wholesome water for use by the residents of Delhi, as well as its natural beauty would add to the glory of the National Capital.

74. It will also be ensured that the remaining debris which has not been lifted so far, should be removed from the Flood Plain of the River Yamuna and it should be ensured that no waste of any kind, much less construction debris or waste, is dumped or permitted to be dumped in that area again. We have already noticed and directed that all the drains would be cleaned and there will be complete prohibition on dumping of any kind of waste and construction and demolition material in and on the banks of the drains, which would then carry only the treated effluent, free of any foul smell.

75. Controlled dredging of river and drains has been recommended by the High Powered Committee. Such exercise would be necessary for cleaning of River Yamuna. For years, Yamuna has been carrying untreated sewage, trade and industrial waste and bearing the brunt of dumping of municipal and/or other waste, including construction debris, plastic, metals and even the

wet waste. With the passage of time, there has been a huge accumulation of sediments and sludge. This, besides causing serious pollution of the river, has considerably reduced the flood carrying capacity of the main channel. This has even silted up wetlands, flood plain and water bodies. According to the High Powered Committee in several places, many of the spurs have lost their original purpose because of the flow in the river is highly reduced and regulated. In several places, these are being extended right up to the current channel and being developed as parks etc. Such development has to stop, to provide water space for the river channel to carry more water. Existing wetlands and water bodies, both upstream and downstream of Wazirabad reservoir, should be deepened and enlarged. Besides, recommending stopping of such activities on the Flood Plain, the Expert Committees have made various recommendations which we accept, *inter-alia*, that (i) culverts must be constructed under the existing guide bunds of roads and flyovers, which have fragmented massive wetlands, so that flood waters flow without obstructions along the river course and into the floodplain wetlands. This will also help movement of aquatic biota (e.g., fish) and enhance the groundwater recharge. (ii) a greenbelt/greenway should be developed on both sides of the embankment, for controlling erosion, reducing sediment load of the main channel, reduce pollution, and beautification. Nature trails may be provided across riparian areas for recreation to the public without losing ecological function of the Flood Plain.

76. And most importantly the Committee recommends control of sewage pollution must be given highest priority, adoption of new technologies to reduce BOD levels from 20 - 30 mg/l to below 10 mg/l together with the use of treatment wetlands as suggested which would enhance quality of water in the river.

77. Upon proper analysis, it is required that controlled dredging is carried-out by the authorities of the main drains of Delhi and River Yamuna to remove huge accumulation of sediments, sludge and waste dumped in and around river and drains to enhance the capacity of the main channel and to restore ecology and biodiversity.

78. Improvement in the levels of pollution in river Yamuna, widening of the river carrying capacity of the main channel and taking of other remedial and preventive measures still may not completely and satisfactorily serve the object of attaining 'Nirmal Yamuna' unless the environmental flow of the river is maintained continuously. Respondent no. 7 (the Central Water Commission), Upper River Division, Government of India has filed a detailed affidavit in which it has been stated that as per entry 17 of list-II of 7th Schedule, Constitution of India, water is a State subject and reach of respondent no. 7 in this regard is advisory, promotional catalytically in nature.

79. Development and regulation of floodplain of rivers falls within the purview of the State. Floodplain is an integral part of river system even though it is used only occasionally to pass down flood

flows. When floodplain is not occupied by water it forms part of the land system providing possibilities of carrying on some restricted activity. It is not possible to provide uniformity in the extent of floodplains with respect to different rivers as well as its various reaches.

80. Floodplain zoning has been accepted as an important non-structural strategy for flood management. The basic concept of floodplain zoning is to regulate land use of floodplains to restrict damage caused due to floods. The floodplain zoning, therefore, aims at determination of locations so that flood damages are reduced to minimum. A very restrictive activity can be allowed in that area. It is not only to protect the areas from damage resulting from floods and failure of water protective measures, but is also useful in reducing the damage caused due to drainage congestion, particularly in urban areas. The Commission claims to have prepared a model bill relating to floodplain zoning. This model bill provides for different categories based of priorities in floodplain.

Following are the recommended priorities:

1. "Defense installations, industries, public utilities like hospitals, electricity, installations, water supply, telephone exchanges, aerodromes, railway stations, commercial centres, etc buildings should be located in such a fashion that they are above the levels corresponding to a 100 years frequency or the maximum observed flood levels. Similarly, they should also be

above the levels corresponding to a 50 years rainfall and the likely submersion due to drainage congestion.

2. Public institutions, government offices, universities, public libraries and residential areas. Buildings should be above a level corresponding to a 25 year flood or a 10 year rainfall with stipulation that all buildings in vulnerable zones should be constructed on columns or stills as indicated above.

3. Parks and playgrounds. Infrastructure such as playgrounds and parks can be located in areas vulnerable to frequent floods. Since every city needs some open areas and gardens, by restricting building activity in vulnerable areas, it will be possible to develop parks and play grounds, which would provide a proper environment for the growth of the city.”

81. According to this affidavit, the National Water Policy – 2012 provides that conservation of rivers, river corridor, water bodies and infrastructure should be undertaken in a scientifically planned manner through community participation. Encroachments and diversion of water bodies must not be allowed and wherever it has taken place, it should be restored to the extent feasible and maintained properly. Despite declaration of floodplains, demarcation has all along been a matter of concern.

82. The floodplain must be demarcated, kept free from any permanent developments and wherever it is possible, it should be restored to its original position.

83. Keeping in view the fact that various developments have taken on the floodplain of river Yamuna and to a larger extent they have adversely affected the river flow, its ecology and bio-diversity, we would direct that floodplain zoning should be taken with reference to the flood of once in 25 years, as against other suggested figure of more years. It is important to demarcate the floodplain on this basis immediately, to protect it from any encroachments or development activities, which as already discussed and requested by the High Powered Committee, would adversely affect the ecology and environment.

84. Thus, it is necessary to call upon the authorities to demarcate the floodplain for the flood of once in 25 years and to prohibit any kind of development activity in the area in question. Furthermore, the Committee should consider restoration of the area and wherever necessary, even demolish the properties, which are likely to be dangerously exposed to the flood and are even affecting the ecology and bio-diversity and flow of the river.

85. Environmental flow of river identifies the minimum flow which the river should maintain round the year. If no water or minimum desired level of water is maintained in River Yamuna through-out the year, then it would not help the cause of environment. The flow of the river would by itself keep the river and environment healthier and also cause dilution to the requisite levels, even if some extent of pollutants enter the river. The carrying capacity of the river has a direct co-relation to the availability of quantity of water. We have also noticed that water of river Yamuna in Delhi NCR is released at

Tajewala. At Tajewala, the river is divided into two canals, which go through different parts of State of Haryana and ultimately join river Yamuna and Ganga. The water released in river Yamuna passing through NCT Delhi is low or negligible except in monsoon period. Thus, it adds to the concentration of the pollution and adds to the environmental degradation. This has to be prevented. Thus, we direct the Chief Secretaries of NCT of Delhi and State of Haryana to have a meeting with the Principal Committee and fix the quantity of water that should be released through-out the year to maintain the environmental flow of river Yamuna throughout the year to ensure prevention and control of pollution.

86. There is unanimity amongst all the stakeholders appearing before the Tribunal including the Expert Members in making the submission that there should be one organisation for looking after the entire project and all departments, corporations and authorities should be answerable and work through that organisation or body. That body should implement the entire project and should oversee the functioning, performance and execution of all the segments of this project. It is in view of this that we have constituted a 'Principal Committee' where more or less all concerned departments are represented or individual department like DDA, NCT of Delhi, Department of Irrigation, DJB, corporations and any other body or authority responsible for executing the work or any part thereof would be answerable and work under the direct supervision of the 'Principal Committee'. All permissions sought for by the respective departments are required to be dealt with utmost expeditiousness,

for ensuring timely completion of the project. The 'Principal Committee' shall submit reports to the Tribunal every quarter in relation to execution and progress of the project.

87. Now let us revert to the developments on the banks of River Yamuna. On a Flood Plain, rampant construction is prohibited under the law. A regulated activity could be carried on, only with the approval of the concerned authorities. The DDA had proposed a plan for prohibition, restoration and beautification of the Flood Plain of River Yamuna which has been found to be prejudicial to the environment and ecology, as well as to the flow of the river. Besides these defects, the Expert Committee has also pointed out that there could be heavy floods in Delhi, if the proposal of the DDA was implemented. For these reasons, besides the ones recorded in the Expert Committee's report, of which the DDA itself was a party, we do not approve of implementation of the DDA plan, but would accept the report of the Expert Committee and direct the river bank/Flood Plain to be kept in the manner as indicated in the report. We direct that walkways will be provided on the outer extreme of the Flood Plain of the River Yamuna, away from the embankments, with green area around providing a space and environment which is safe for walkers. In this judgment, of which the reports of the Expert Committee are an integral part, we have applied the precautionary principle by directing various steps which are required to be taken by the authorities, including prohibitory orders in relation to dumping and throwing of waste of any kind in the drains in the River Yamuna to protect the environment. We

have evoked the Polluter Pays Principle requiring the industrial clusters to contribute towards establishment of CETPs. Similar directions in regard to the contribution by residents for establishment of STPs wherever the State feels the need for that purpose. In any case, maintenance of CETPs and STPs should be a burden that is required to be shared by the industries and residents of Delhi. They have the fundamental duty to protect the environment, not only on the Polluter Pays Principle but even on the correct analysis of Article 51A(g) of the Constitution. There is a rapid growth in the construction and industrial activity in the city causing further and more serious pressures on the environment and infrastructures in the city. If the authorities are permitting such growth then they have to impose restrictions to regulate the same as well as incur such costs which are necessary for preventing irretrievable injury to the environment and ecology of River Yamuna in Delhi. The sustainable development would certainly require all these authorities and residents of Delhi to act with reasonable caution and restrictions on the one hand and contribute towards protection, improvement and restoration of the environment on the other.

88. Subject to any law coming into force, we have already stated that flood of once in 25 years would be considered for defining and demarcating the flood plain. No development/construction activity, except that is stated herein, would be permitted in the Flood Plain of River Yamuna. No authority or person before us has even taken up the plea that why development/construction activity cannot be

carried on in other parts of NCR, Delhi. As of now, sufficient land is available, may it is expensive, but that cannot be a ground for destroying the ecology, environment and biodiversity of River Yamuna of Delhi. The result of indiscriminate, unregulated and uncontrolled development activity are widely visible and felt by each and every one in Delhi. It would not only be unwise, but may prove fatal, if such approach is continued any further.

89. At the very initial stages of this application, the Tribunal vide its order dated 31st January, 2013, had constituted a Committee chaired by the Vice Chairman of Delhi Development Authority, which consisted of Senior Bureaucrats and technocrats from the concerned Departments of NCT of Delhi, State of UP and Commissioners of the Corporations to examine the entire matter in relation to preservation, beautification and restoration of river bank and pollution of River Yamuna, including the restoration of drainage system in Delhi. On the submission of the learned Counsel appearing for the parties and examining the wide repercussions and significance of the recommendations, it was considered appropriate to involve the concerned Ministries of the Government of India as well. Resultantly, vide order dated 1st February, 2013, Secretary MoEF was made the Chairperson of the Committee while the Additional Secretary, MoEF was made as a Member of the Committee. They were free to co-opt high officers from other Ministries, if they considered it necessary. Thus, subsequently, this Committee consisted of Secretary and other Senior Officers and Scientists from the MoEF, Vice-Chairman and

Chief Engineer and other senior officers from various Corporations of Delhi, Member Secretary, CPCB, Sr. Technocrats and officials from State of UP. This Committee had been submitting interim reports before the Tribunal upon which various directions were issued by the Tribunal from time to time for more specific and scientific examination of the issues involved in the present application and for submission of more definite and practical recommendations for achievement of the object. These recommendations were not only in relation to prevention and control of pollution of river Yamuna and improvement of the river bank but also for removal of huge debris as afore noticed from the river banks and their utilisation at the site and the plant at Burari for production of all tiles.

90. The Principal Committee constituted by the Tribunal, in terms of its above orders, for adopting a more scientific approach and assessment of data collected through field studies, further constituted a more specialised Committee, consisting of Professor C.R. Babu, Professor A.K. Gosain and Professor Brij Gopal. This Committee made its recommendations on the basis of their vast experience in their respective fields and made scientific data available upon making such field visits.

91. This Expert Committee submitted its comprehensive report which was considered by the High Powered Committee chaired by the Secretary MoEF. This Committee accepted the complete report in regard to restoration, preservation and beautification of the river bank of Yamuna. In this Committee even DDA had been duly

represented. The point of view of DDA was considered in great depth by Experts from various fields with a specific technical know-how in restoration of river banks. As already noticed, it was found that the execution of the plan prepared by the DDA would not be in the interest of environment particularly the ecology and biodiversity in and around river Yamuna and it could be even fatal in relation to floods harming the larger public interest. The report prepared by the Committee on 19th April, 2014 was duly approved and while reiterating its recommendations, the High Powered Committee submitted the report in that behalf to the Tribunal dated 2nd August, 2014.

92. The report in relation to the improvement of drainage system and control of pollution of river Yamuna was dealt with by the Committee consisting of experts in the field as constituted vide order dated 30th May, 2014 of this Tribunal.

93. The Members of this Expert Committee we have already referred above. This Committee besides interacting with various departments also interacted with the foreign consultants engaged by the DJB. After serious deliberations and even considering the proposal of the Corporations for covering all the natural and man made drains of Delhi, it submitted its recommendations on 13th October, 2014 to the Tribunal. This report of the Committee dated 13th October, 2014 makes the project prepared by the DJB as annexure to the report for the purpose of complete and effective execution of its recommendations. Both the above reports were subjected to serious deliberations and consideration before the

Tribunal particularly its Expert Members. Certain queries in relation to the second report were specifically raised by the Tribunal and as recorded vide its order which had been duly explained by the Members of the Expert Committee and it was only after serious deliberation scrutiny and examining its various facets including practical aspects, the reports have been accepted by this Tribunal as well.

94. We are not oblivious of the herculean task which will be required in carrying out the '*Maily Se Nirmal Yamuna*' Revitalization Project, 2017, but we are of the firm view that any further deferment in taking stern and serious steps for preventing and controlling pollution of River Yamuna, is bound to expose Delhi and its residents to grave environmental disasters. Implementation of provocative action plan postulated by the Expert Committees and as described in this judgment is inevitable to protect public health, public interest and the environment. This is the only solution to bring down the highest contribution of pollutants (76% of the total Yamuna's Pollution level) to a negligible and preferably to zero percent, in the interest of ecology, environment and to provide clean water to the residents of Delhi.

To ensure complete and effective implementation of the recommendations made by the Expert Committees in their reports dated 19th April, 2014 and 13th October, 2014 respectively, as well as, to identify the authorities responsible for compliance for timely preparation and execution of action plans, prepared in terms of this

judgment, we hereby issue the following directions in the larger environmental and public interest:

- i. The Tribunal hereby accepts both the reports filed by the Expert Committees: first report dated 19th April, 2014, read with the gist of recommendations submitted by the Principal Committee on 2nd August, 2014, on the aspects of preservation, restoration and beautification of the banks of River Yamuna and the second report dated 13th October, 2014, read with its annexure, in relation to drainage system in Delhi, together with the Action Plan prepared by the DJB for revitalization of River Yamuna. Both these reports shall form integral part of this judgment. All the concerned authorities of NCT of Delhi, State of UP and State of Haryana shall implement the same without demur and default, expeditiously. The entire project contemplated under these reports and this judgment of the Tribunal shall be completed by 31st March, 2017.
- ii. **This project shall be called ‘Maily Se Nirmal Yamuna’ Revitalization Project, 2017.**
- iii. Implementation of both these reports and the components of the project shall be simultaneously executed by the concerned agencies, who shall prepare their respective Action Plans in terms of the reports as well as this judgment and submit it to the Principal Committee constituted hereinafter, in not later than four weeks from the date of pronouncement of this judgment.

- iv. (a) Presently, under the jurisdiction of the DJB, there are 23 STPs in existence or planned to be made operational by 2015. Out of them, the oxidation pond at Timarpur is proposed to be closed, as it was commissioned in the year 1947. The STPs at Okhla and Kondli are lying closed due to inadequate sewerage and majority of the STPs are not operating to their optimum capacity. Thus, we direct that the DJB and other concerned Corporations under whose jurisdiction the existing STPs fall, shall, within two months from today, ensure that all these STPs, including the one proposed to be commissioned at Delhi Cantt., should be made fully operational, should operate to their optimum capacity and operate effectively 24x7, without compromising the quality of treated water released from such STPs.
- (b) It is further directed that the Action Plan in regard to installation of STPs on 32 major and minor drains shall be prepared, in accordance with the recommendations in the Expert Committee Report afore-referred and action taken in furtherance thereto, within three months from the date of passing of this order.
- (c) All the newly proposed 32 STPs should be constructed and installed with the requisite capacity varying from 0.6 mgd to 10 mgd, at the sites specified in the report of the Expert Committee within the time frame indicated in this judgment. Once, the total of 55 STPs would operate effectively and to their optimum capacity, the water released from them shall be

recycled and utilised for agriculture, horticulture and industrial purposes and least of this recycled water would be discharged into the River Yamuna.

(d) Action Plan to be prepared to utilize the treated water from the existing 23 STPs as well as from the 32 proposed STPs. It will be ensured that the release of water from these existing STPs should be strictly in accordance with the prescribed parameters and free of any odour and it should meet the faecal coliforms standards.

(e) Wherever necessary, the technology of the existing STP's should be upgraded to ensure proper performance and adherence to the prescribed standards of effluent discharge.

(f) The concerned authorities shall construct and install 26 pump stations at the locations and of the capacity as indicated in the Action Plan placed before the Tribunal. The process thereof should begin within three months from the date of passing of this judgment.

(g) Further, all the STPs shall be provided with a power backup to ensure that they operate effectively 24x7. It shall be ensured that the functional data of all STPs is online and is connected to the Delhi Pollution Control Committee as well as the Central Pollution Control Board, particularly in respect of COD, TDS, TSS and pH and it shall be ensured that the STP's are operational even during power failures.

(h) All the industrial clusters in Delhi shall be provided with Common Effluent Treatment Plants (CETPs). These CETPs

shall be effluent-specific and capacity-specific, with reference to the particular industrial cluster. The installation cost of the CETP shall be borne preferably by the authority that owns and maintains that industrial cluster. In the event of shortage of finances the authority concerned can require the persons running the industrial activity/unit in that cluster to share the cost on 'Polluter Pays Principle' in the ratio 2/3 and 1/3 respectively.

(i) We direct the State of Haryana to ensure that all the industries/industrial clusters that are located near or at the banks of River Yamuna, should preferably be no discharge units. If that is not possible, then such industrial clusters should be directed to install CETPs of the requisite size and standards, so as to ensure that the effluent discharged by them is strictly in accordance with the prescribed norms.

- v. (a) Having given our considered view to the various reports placed on record, submissions made by the Learned Counsel appearing for the parties and the Experts, we are of the opinion that presently the flood plain should be identified for the flood of once in 25 years in the interest of ecology, biodiversity and the river flow. Thus, we direct accordingly and also direct that the DDA shall prepare a map in this regard and would physically demarcate the entire flood plain.

Above interim prescription of the flood plain is not rigid, but is subject to change, in the event any of the public authorities, including the MoEF, moves the Tribunal, based

upon some collected data or any other specific information in that regard .

(b) We direct and prohibit carrying on of any construction activity in the demarcated flood plain henceforth. We further direct the Principal Committee to identify or cause to be identified, all existing structures as of today which fall on the so identified and demarcated flood plain. Upon identification, the Principal Committee shall make its recommendations as to which of the structures ought or ought not to be demolished, in the interest of environment and ecology, particularly, if such structures have been raised in an unauthorised and illegal manner.

(c) The Principal Committee may keep in mind that certain structures need to be protected, amongst other reasons, for their historical, mythological and heritage importance and/or are protected structures. The Committee shall clearly spell out the regulatory regime that should be provided for dealing with such existing structure in the flood plain.

(d) We direct all the concerned authorities including the DDA, Municipal Corporations and the NCT of Delhi, to take immediate and effective steps for repossessing the Flood Plain area under the unauthorised and illegal occupation of any person and/or any other body.

This direction is also necessitated for the reason that as per the records before the Tribunal, out of total area of 9700 hectares for River Front Development ('O' Zone), only 1452

hectare is presently available with the DDA for development and the remaining area is occupied in an unauthorised manner and is under agriculture activity for which leases had been granted by the DDA or even otherwise.

(e) It is an established fact that presently, vegetables, fodder grown and allied projects at the flood plain of River Yamuna are highly contaminated. Besides containing ingredients of high pollutants, such produce is even found to contain metallic pollutants. Thus, it is an indirect but a serious public health issue as the persons eating or using such agricultural produce can suffer from serious diseases including cancer.

Therefore, we direct that no authority shall permit and no person shall carryout, any edible crops /fodder cultivation on the Flood Plain. This direction shall strictly be adhered to till Yamuna is made pollution free and is restored to its natural wholesomeness.

- vi. (a) During the pendency of this application, it was brought on record that nearly 37,000 cubic m. construction debris are lying on the eastern bank of River Yamuna, while 53,000 cubic m. debris is lying on the western bank of the River. The major part of this debris has already been removed under the orders of the Tribunal during pendency of this application. The local Commissioners appointed had reported to the Tribunal that major part of debris had been removed by the DDA, DMRC, Corporations, the PWD and the UP Government. DMRC has removed 33,000 cu. m. from Sarai Kale Khan and 20,000 MT

from Shastri Park, the State of UP has removed 37,000 MT from the Flood Plain and DDA has removed 2500 cu. m. from Eastern Bank of River Yamuna and 7500 cu. m. from Western bank of River Yamuna, amongst others.

(b) Indiscriminate dumping of debris and construction waste is a direct source of not only pollution of River Yamuna, but even the environment and ecology as a whole. In order to control and prevent such pollution, we confirm the interim order dated 22nd July, 2013, passed by the Tribunal, with the variation in payment of amount of compensation payable by the offender and direct that no person, authority, corporation and/or by whatever name or designation it is called, shall dump any kind of construction debris, municipal, or any other waste on the floodplain/river bed of River Yamuna and its associated water bodies. There shall be complete prohibition on dumping of any material in and around River Yamuna.

(c) Whoever violates this direction relating to the dumping of debris, shall be liable to pay compensation of Rs. 50,000/- on the 'Polluter Pays' Principle and the Precautionary Principle. Such compensation shall be used for removal of such waste and restoration of environment.

(d) We hereby prohibit any person from throwing *pooja* material or any other material like, food-grain, oil, etc into River Yamuna, except on the designated site. Any person who is found disobeying this direction shall be liable to pay compensation of Rs. 5,000/- on the 'Polluter Pays' Principle.

At the same time, we direct the concerned authorities, particularly, the Irrigation Department and concerned Corporations or authorities to build special Ghats on the banks of River Yamuna, where people could offer or immerse such materials, which shall then be duly collected by the concerned authorities for immediate and proper disposal in a scientific manner. It shall be ensured that no such material is permitted to join the main stream of the river at any point. In this regard they may take such steps, as may be technically advised, including, providing of screens and barricades.

(e) We have provided the above compensation payable by the offenders who are found to be throwing municipal or any other waste into the river or its flood plain and by the persons who are found to be dumping construction and heavy debris, based on the 'Polluter Pays' Principle. Even though, it is not practically possible to determine the amount of compensation with exactitude, that such offenders should be directed to pay, however, on a rough estimation based on manpower required, time and money spent for removal of such waste and debris as well as making the river free from adverse environmental impacts of such dumping into the river and on the flood plain, we have fixed the above compensation for environmental degradation under Section 15 of the NGT Act.

(f) Whatever remnant construction or other waste is still lying on the banks of the entire stretch of Yamuna in NCT Delhi, would be removed positively within four months from

today by the concerned authority/State under whose jurisdiction the said area falls.

- vii. We direct all the concerned authorities, corporations, bodies including Resident Welfare Associations to clean all the 157 natural storm water drains as identified by the Committee, within four months from the date of passing of this judgment and the drains should be made obstruction free and no waste should be permitted to be dumped in such drains. The drains may be cleaned mechanically or manually as the situation may demand. Such cleaning would include the dredging of the drains besides compliance of the specific recommendations of the Expert Committee. There shall be controlled dredging of River Yamuna to remove the huge accumulation of sediments and sludge for restoration of the cross section and flood carrying capacity of the River Yamuna.
- viii. Existing wetlands and water bodies, both up-stream and downstream of Wazirabad reservoir, should be deepened and enlarged. This should be done in addition to providing more water bodies.

We direct the Chief Secretaries of the States of Himachal Pradesh, Uttarakhand, NCT of Delhi, Haryana and Uttar Pradesh, Secretary, Water Resources, Government of India and Secretary, MoEF, to hold a meeting within four weeks from today to prepare an immediate action plan required to ensure proper environmental flows throughout the year, in the entire river and particularly the stretch flowing through Delhi.

- ix. The concerned Corporations under the guidance of the Principal Committee shall submit a report as to the identification and existence of the 44 drains (natural) which have been reflected in the Drainage Map of 1976, but were not traceable, as pointed out by the Expert Committee before the Tribunal. This report will be submitted to the Principal Committee within three months from the date of passing of this judgment.
- x. The compostable material drawn out of such immersion or offering, should be used for manure purposes and should not be unduly stored. All other scientific method may be adopted for its removal and disposal.
- xi. The Yamuna River Front i.e. the flood plain shall be restored, preserved and beautified, strictly in accordance with the report of the Expert Committee dated 19th April, 2014 as per its acceptance on 2nd August, 2014 by the MoEF as well as High Powered Committee.
- xii. However, restricted activities of floriculture and silviculture can be carried on, subject to such specific permissions and restrictions as may be imposed by the authorities/Principal Committee and also subject to the orders of the Courts, wherever, the matters are stated to be pending.
- xiii. The respective Corporations and/or authorities would be responsible for execution of these directions directly under the supervision of the Principal Committee constituted herein.

- xiv. The Government of the NCT of Delhi and the neighbouring States shall, within a period of three months from today, identify the site where the sludge/dredged material from the drains and River Yamuna is to be stored. The Principal Committee shall also issue directions as to the best way of utilisation of such sludge/dredged material including, for construction of tiles, particularly in reference to paver blocks.
- xv. Sites for storage of fly ash are a direct source of air and water pollution. Therefore, in furtherance to the MoEF Notification dated 14th September, 1999 and this judgement, we direct proper covering of fly ash at the particular sites on the river bank of Yamuna. All the concerned authorities shall ensure that such fly ash should be disposed of at the earliest. Further, we direct that the Government should provide incentives for use of bricks made of fly ash in preference to red bricks. Since the Indraprastha Power Station generates considerable amount of fly ash and is located very close to the river bank, thus, the unit should take all effective steps to prevent pollution of the river water by dumping fly ash at suitable locations.
- xvi. We are informed that Rupees Twenty Thousand Crores has already been provided under the planned expenditure to the NCT of Delhi, out of which Rs. Two Thousand Thirty One Crores have been specifically earmarked for providing sewage connection, sewage treatment, sewage disposal and water network. As per the Expert Committee the total expenditure of

the present project is estimated at Rs. Four Thousand Crores, which can safely be met from the above head under the planned budget. However, still if there be need, we direct that the public authorities/Municipal Corporations could require the public at large to contribute to this expenditure based on the 'Polluter Pays' Principle. Funds/compensation so collected shall exclusively be used for this project and allied projects, with the object of ensuring pollution free Yamuna, clean and effective drainage system and for providing wholesome water to the residents of Delhi. Such environmental compensation may be determined by the Authority/Corporation with reference to the size of plots, construction raised thereupon, activity being carried on therein, consumption of water, quantum of sewage and domestic discharge and such other relevant considerations as the authority may deem fit and proper. The charges could be collected as part of the property/house tax.

- xvii. We direct all Public Authorities, Municipal Corporations and the concerned Departments, including the Department of Irrigation, to take effective steps to protect the Flood Plain as well as to educate all sections of society to co-operate and not to do any acts or deeds which are prohibited under this judgment and would have adverse consequences. These authorities should place large-sized dustbins, beyond the demarcated Flood Plain and towards the inhabitation, as well as in the bio-diversity parks. They shall request for concerted

efforts both by the ones who are governing and ones who are governed. They shall issue circulars, display signages and may take recourse of Print and Electronic Media for educating people at large for effective completion of this project.

- xviii. We direct all concerned to make every possible effort to ensure that the storm water drains do not carry sewage. Sewage may be carried through those drains upon which the STP's have already been installed, till the completion of the project. After the completion of the project, steps shall be taken so that only minimal quantity of treated water from the STPs reaches Yamuna.
- xix. The CPCB, DPCC in coordination with the DJB, shall collect samples from River Yamuna, its floodplain and from the respective STP's at different places and sites for detailed analysis. This shall form the baseline data for implementation of this project. It will also be helpful in determining the improvement in the water quality.
- xx. The authorities concerned shall take all steps to rejuvenate the water bodies associated with River Yamuna.
- xxi. All concerned authorities shall deal with utmost priority and expeditiousness, in case any application in furtherance to any construction or authorization is moved by any of the authorities, Corporations or DJB, directly or through the Principal Committee, in execution of the Project. We grant liberty to the State Authorities, Corporation and DJB to

approach the Tribunal in the event there is undue delay in dealing with such application in accordance with law.

xxii. There shall be no construction and/or coverage of any of the drains in Delhi by any Authority or Municipal Corporation. All the drains shall be kept obstruction free by the concerned Corporation. Where substantial work (more than 85%) has been completed, such work is permitted to be completed by the Corporation after obtaining specific orders from the Tribunal in that regard. Rest of the work, where construction has just begun, the construction, including iron material, shall be removed. While completing such remnant work, Corporation shall ensure that the cross section of the drains to carry the requisite storm water for the flood of once in 25 years and other effluents, are not compromised. Such construction and/or removal shall be carried on in terms of paragraph no. 61 of this judgment.

xxiii. We constitute the 'Principal Committee' which shall be responsible and under whose supervision the directions contained in this judgment and the project reports shall be completely, effectively and expeditiously complied with. All concerned Authorities, Corporations, DJB and any other department, responsible for carrying out directives of this judgment, shall report the matters and submit the respective reports and data to the Principal Committee, for onward transmission to this Tribunal. The Committee shall file quarterly report of compliance before the Tribunal. The

Committee shall consist of Special Secretary, MoEF, Joint Secretary of Ministry of Water Resources, Chief Secretary, Delhi Administration, Vice Chairman, DDA, Commissioner of all the Corporations, Commissioner, DJB, Secretary, Department of Irrigation, NCT of Delhi, concerned Secretaries of the States of Haryana, Uttar Pradesh, Himachal Pradesh and Uttarakhand.

The four Members, namely, Professor C.R. Babu, Professor A.K. Gosain, Professor Brij Gopal and Professor A.A. Kazmi shall be the Members of the Principal Committee and shall be associated with commencement and completion of all the aspects of this project. The Delhi Jal Board along with Corporation under whose jurisdiction the required number of STP is to be constructed and established as well as the drains which are to be completed and made obstruction free shall be responsible for execution of the work as contemplated in the action plan, reports of the Committee and the judgment of the Tribunal. They shall work in tandem and under the supervision of the Principal Committee.

- xxiv. All the Authorities, Corporation, DJB, CPCB, DPCC and any other department or authority, directly or indirectly connected with the compliance of these directions and the Project Reports, shall report to the Principal Committee in relation to all the actions taken in furtherance thereto and their progress from time to time. In the event of default, the Head of

Department of such Authority/Corporation/Board would be held personally responsible.

- xxv. These specific directions are in addition to any other direction that we have recorded in the entire judgment.
- xxvi. By this judgment, we not only mandate but even request all the concerned Authorities, State Governments and the Principal Committee to ensure timely compliance of these directions, as this is the only plausible and practical way by which River Yamuna would become pollution free and its flood plain conducive for the biodiversity that it deserves. We have no doubt that with the concerted efforts of all concerned, '*Maily Se Nirmal Yamuna*' Revitalization Project, 2017, would be a success. It would not only meet the ecological and environmental standards prescribed but would also provide clean air and water to the residents of Delhi, who are entitled to it and have a legal and constitutional right to receive the same. It will also help in providing sufficient water for agricultural and industrial purposes, thus, saving considerable quantity of potable water, so as to enable the concerned authorities to provide the same to all the colonies of Delhi. We also express a pious hope that residents of Delhi would render all help and assistance to all concerned and even abide by their fundamental duty for rejuvenating River Yamuna.
- xxvii. We would be failing in our duty if we do not record our sincere appreciation for the contribution made, efforts put in and

technical guidance provided, by the Members of the Principal Committee constituted by the Tribunal particularly the Expert Members, namely, Professor C.R. Babu, Professor A.K. Gosain, Professor Brij Gopal and Professor A.A. Kazmi.

xxviii. We grant liberty to all the parties, the applicants or even the public, to approach the Tribunal for any clarification or modification or for removal of any of the difficulties felt by them in implementation of the directions contained in this judgment and/or of the project reports.

95. In view of the above discussion, Original Application Nos. 6 of 2012 and 300 of 2013 and M. A. Nos. 877/2013, 49/2014, 88/2014 & 570/2014 in Original Application No. 300/2013 and M.A. Nos. 967/2013 & 275/2014 in Original Application No. 6/2012 stand disposed of in terms of this judgment and particularly, the directions stated in paragraph no. 94 of the judgment. The parties are left to bear their own costs.

Justice Swatanter Kumar
Chairperson

Justice M.S. Nambiar
Judicial Member

Dr. D.K. Agrawal
Expert Member

Prof. A.R. Yousuf
Expert Member

New Delhi
13th January, 2015