

CHAPTER NO. 4

ACTION TAKEN SO FAR

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4.1 DECISIONS IN CHRONOLOGICAL ORDER

- i. The project of channelisation of River Yamuna along with reduction in pollution and enhancement in quality of environment with improvement in the quality of life was initiated in 1977 when the Chief Engineer (I & F), Delhi Administration wrote to the Director, Central Water & Power Research Station Pune, to conduct model studies for channelisation of River Yamuna.
- ii. The project got an impetus on 30th April, 1982 when the ex-Member (Floods & Drainage) and ex-officio Additional Secretary to the Government of India, again wrote a letter to the Chief Secretary, Delhi Administration on the project of channelisation of river Yamuna, especially to implement the Prime Minister's 20-Point Programme.
- iii. In 1983, the Delhi Development Authority (DDA) while preparing the second Master Plan of Delhi, emphasized the importance of the project and on the advice of the then Chief Consultant to DDA, a letter was again written to the Central Water and Power Research Station Pune to conduct model studies of channelisation of River Yamuna.
- iv. Considering the importance of the project, especially with regard to the control of pollution and implementation of various projects on the bank of River Yamuna, the then Lt. Governor, Delhi, on 5th September, 1984, constituted a High Powered Committee under the Chairmanship of the then Executive Councillor (Development). The Committee worked for one year and produced a report in September, 1985.
- v. The then Ministry of Works and Housing (now Ministry of Urban Affairs & Employment) in 1985 wrote to the Vice-Chairman, DDA to draw a scheme along with a three dimensional wooden model for the planning of Yamuna bed area to show to the Prime Minister of the Country.
- vi. In response to the request of the DDA, W & PRS Pune conducted studies and sent two interim reports on 5th October, 1985 and 14th March, 1986 to DDA respectively.
- vii. A meeting was held under the chairmanship of the then Union Minister of Environment and Forests on 13th February, 1987. The Minister of (E & F) decided that 50% of the total cost of the macro level project can be funded from Central Funds.
- viii. On 22nd March, 1986 the project was discussed in the meeting of the Advisory Council of the DDA. The Advisory Council recommended as under:-

“The Council considered the agenda item pertaining to the problem of pollution in River Yamuna, the causes and extents thereof and the proposal of remedial action as suggested in the report prepared by the High Power Committee appointed by the Lt. Governor, Delhi on 5th September, 1984. The Council took note of the scheme and adopted the report of the detailed consideration by the DDA”.

- ix. The matter was put before the Delhi Development Authority where, vide its Resolution No. 27, dated March, 1987, decided as under

“The Authority took note of the proposal regarding pollution control of river Yamuna as details given in the agenda item and resolved that as an immediate objective necessary action be taken to improve the quality of water at the Ghats and improve the existing services available at the Ghats within a period of six months. It further resolved that the entire pollution control programme be taken up simultaneously for which action plan be drawn up. It further observed that the nodal point for the execution of the scheme would be the Secretary (LSG), Delhi Administration.

- x. In June 1987, there were 10 meetings under the Chairmanship of Chief Executive Councillor (CEC) with senior officers of various departments for the improvement and cleaning of bathing ghats.
- xi. INLAND WATERWAYS AUTHORITY OF INDIA (IWAI); In January 1989 submitted a report on Navigational feasibility in river Yamuna to Lt. Governor, Delhi, but no further action was taken.
- xii. 3500 hect. of area in river bed on 29.3.89 was declared as development area under Sector – 12(1) of the Delhi Development Act 1957. This is bounded by two marginal bunds in east and west, a line one km. north of Wazirabad barrage in the north, and Okhla Wier in the south.
- xiii. A meeting on 10.12.90 took place under the Chairmanship of VC, DDA giving outline details of the Project of Planning of river Yamuna bed. It was emphasized in the meeting that the project may be expedited.
- xiv. Central Water and Power Research Station, Pune submitted a draft final report on 29.5.91 on “Hydraulics Model Studies for Channelisation of River Yamuna at Delhi”. This is a basic report in which channelisation of River Yamuna is proposed. This report prepared by CW & PRS is not a complete one as 7-8 of the terms of references have yet to be replied by them.
- xv. Extracts of the Report of Yamuna Action Plan – March 1992; prepared by Special Assistance For Project Formation (SAPROF – TEAM) for the Overseas Economic Cooperation Fund (OECF), Japan. Report prepared by OECF, Japan has details of 15

cities but here it has been given only of Delhi. This plan was approved by the Cabinet in April, 1993.

4.2 REPORT PREPARED BY DWS & SDU IN DEC., 92:

Action Plan (1992 – 97); to improve the quality of water of Yamuna River specially near the bathing ghats as prepared by DWS & SDU in December 1992 giving details of physical and financial provisions to clean the River Yamuna. This is an important note with details of various drains trapped or untrapped. River surveys about sampling points were also done and given in the note.

Out of 17 drains out falling in river Yamuna, 7 drains have been fully trapped (having discharge of 31.78 MLD (7 MGD) and 4 have been partly trapped (having discharge 502 MLD (116.60 MGD) and remaining 6 drains shall be trapped (having discharge of 2014.7 MLD (443.8 MGD) progressively in a phased manner.

4.3 STUDIES BY VARIOUS CONSULTANTS

1. STUDY BY TATA CONSULTING ENGINEERS

The Delhi Water Supply & Sewage Disposal Undertaking has prepared a Master Plan for 2021 A.D. for sewerage, (through M/S Tata Consulting Engineers) according to which it will require an outlay of Rs. 1200 crores.

2. STUDY BY SEVERN TRENT INTERNATIONAL UNDER D.D.A.

Under an Agreement with Overseas Development Administration, U.K. a twinning arrangement with signed between the Undertaking and M/S S.T.I. in the year 1988. One of the areas of study was to formulate sewerage strategy. Briefly the findings are as under:-

- a. Many sewers suffer from over flow or continuous surcharges. The over load has to be checked up against the Master Plan prepared by M/S Tata Consulting Engineers.
- b. Surcharge results in siltation and continuous and substantial efforts of desiltation of sewers area called for.
- c. Renovation of old sewers and replacement of worn out pumps has to be carried out systematically.

- d. The capacity of the sewage treatment plant has to be augmented. Besides steps have to be taken for renovation of the existing sewage treatment plants.
- e. Funding and manpower has to be made available for comprehensive investigations.
- f. Funding and manpower has to be made available for rehabilitation of sewers, renovation of pumping stations and treatment plants.

3. STUDY BY ENVIRONMENTAL PROTECTION AGENCY-USA-WETLAND TECHNOLOGY

A cost effective aqua – culture / wet land system in the Yamuna river bed for natural degradation and reduction of coliform bacteria has been suggested. The proposed system will bring down the BOD to about 5 to 10 % of current level.

Construction of one such artificial wet land on a pilot basis has to be started. The cost of this pilot study will be met by EPA, USA. Only land will have to be made available by us.

WETLAND TECHNOLOGY

Acqua-culture / wetland technology can bring about reduction in BOD at the bathing ghat considerably. The financial outlays can be given on completion of the pilot study, which is proposed to be undertaken near Barapulla Nallah where land is available. The study is to be carried out under the auspices of Environment Protection Agency, U.S.A. and to be fully funded by US AID.

The Undertaking is in touch with French Experts who have installed a pilot plant at Okhla Sewage Disposal Works for reduction in BOD level to meet the bathing standards. The above technology is based on chemical and biological treatment of waste water.

4. STUDY BY FRENCH EXPERTS-PHYSICO-CHEMICAL AND BIOLOGICAL TREATMENT

The D.W.S & S.D. Undertaking is in touch with French Company M/S Degremont which are leaders in the water and waste water technology.

The above firm has installed a pilot plant at Okhla Sewage Disposal Works for reduction of BOD and polish the effluent to meet the bathing standards. The above technology is based on chemical and biological treatment of water.

The above firm has also been asked to examine the possibility of treatment of the waste water in the Najafgarh Nallah itself and give projections of Time and Costs.

5. COMPREHENSIVE REPORT PREPARED BY DDA:

DDA prepared many reports from 1984 onwards:-

1. Basic statistics at a glance
2. Physical Dimensions
3. Highlights of river Yamuna
4. Objectives and Necessities of the Project.
5. Decisions taken so far in chronological order
6. Irrigation & Flood Control
7. Non-structural Aspects of Flood Management
8. Flood Plain zoning of river Yamuna
9. Indicative Plans of the entire stretch of river Yamuna Bed
10. Plans of Phase – I, between I.P. Barrage and Nizamuddin Bridge etc.
11. Planning of bathing ghats
12. To remove, stop & control of pollution
13. To improve environment of the area within river bed and NCTD.
14. Channelisation of the River Yamuna
15. Acquisition of land and involvement of Private Sector / Joint Venture.
16. Navigational facilities in River Yamuna
17. Financial Planning of the Project.

18. Issue No. 7 – Economic Planning of the Project.
19. Issue No. 8 – Administrative set up to implement the project
20. Further Action to be taken (Short term, medium term and long term).

INFERENCES AT A GLANCE:

1. CW & PRS PUNE ESTABLISHED THAT CHANNELISATION OF RIVER IS POSSIBLE AND FEASIBLE, BUT IN PHASED MANNER. THE SAFEST STRETCH / REACH IS BETWEEN INDRAPRASTHA BRIDGE-CUM-BARRAGE & NIZAMUDDIN BRIDGE.
2. ALL THE AUTHORITIES STRESSED FROM TIME TO TIME THAT POLLUTION OF THE RIVER SHOULD BE REMOVED / CONTROLLED.
3. BIGGEST REASON TO POLLUTE RIVER YAMUNA IS FALLING OF 17 STORM WATER DRAINS FULL WITH SULLAGE.
4. FOLLOWING ARE THREE TECHNOLOGIES TO REDUCE POLLUTION IN RIVER YAMUNA.
 - i. CONSTRUCTION OF A CONVEYANCE SEWER
 - ii. CONSTRUCTION OF INDIVIDUAL TREATMENT PLANTS AT THE MOUTHS OF EACH STORM WATER DRAINS, INDIVIDUALLY OR BY COMBINING TWO OR MORE THAN TWO DRAINS.
 - iii. WET LAND TECHNOLOGY
5. SINCE 10 YEARS DDA HAS PREPARED REPORTS ON THE SUBJECT OF PLANNING OF RIVER YAMUNA. CONTENTS OF ONE OF THE COMPREHENSIVE REPORT IS GIVEN IN PARA 4.4.
6. PRE FEASIBILITY STUDY OF ALL THE PROJECTS, NAMES GIVEN IN CHAPTER 12 IS NECESSARY.