

**IN THE HIGH COURT OF PUNJAB AND HARYANA
AT CHANDIGARH**

1. Civil Writ Petition No.7036 of 2005

Nirbhai Singh
State of Punjab

Versus

... Petitioner
... Respondent

2. Civil Writ Petition No.13881 of 2006

Court on its own motion
State of Punjab

Versus

... Petitioner
... Respondent

3. Civil Writ Petition No.14744 of 2007

Sant Singh Namberdar and others
State of Punjab and others

Versus

... Petitioners
... Respondents

4. Civil Writ Petition No.4472 of 2009

Tajpur Road Dyeing and Industries Association
Union of India and others

Versus

... Petitioner
... Respondents

5. Civil Writ Petition No.8970 of 2009

Dyeing Effluent Treatment Society
Union of India and others

Versus

... Petitioner
... Respondents

Date of decision: 14th November, 2011

**CORAM: HON'BLE MR. JUSTICE RANJAN GOGOI, CHIEF JUSTICE
HON'BLE MR. JUSTICE KANWALJIT SINGH AHLUWALIA**

Present: Mr. Sumeet Mahajan, Senior Advocate with
Mr. Sham Lal Bhalla, Advocate.

Mr. Ashok Aggarwal, Senior Advocate with
Mr. Amit Aggarwal, Advocate.

Mr. Sanjeev Sharma, Senior Advocate with
Mr. Shekhar Verma, Advocate.

Mr. Harsh Aggarwal, Advocate.

Mr. G.S. Brar, Advocate.

Mr. G.S. Lalli, Advocate.

Ms. Madhu Dayal, Additional Advocate General, Punjab.

Mr. A.R. Takkar, Advocate
for Punjab Pollution Control Board.

Mr. T.P. Singh, Advocate
(was present at the time of arguments, now deceased)
for Central Pollution Control Board.

Mr. Vijay Kaushal, Advocate
for Punjab Water Supply & Sewerage Board.

Mr. Sanjay Joshi, Advocate
for Ministry of Forests and Environment – UOI.

Mr. Ashwani Bakshi, Advocate
for Tajpur Unit.

Mr. Ashish Verma, Advocate
for Punjab Small Industries and Export Corporation Ltd.

1. Whether Reporters of Local Newspapers may be allowed to see the judgment?
2. Whether to be referred to the Reporters or not?
3. Whether the judgment should be reported in the Digest?

KANWALJIT SINGH AHLUWALIA, J.

Ludhiana is the most affluent, prosperous and largest city of Punjab. The city stands on the old bank of river Sutlej, which is situated on the northern side of Ludhiana city, approximately 15 kilometers away from the City Center. Ludhiana is also known as Manchester of India, being one of the most industrialized towns of northern India. The industries housed in Ludhiana are engaged in manufacture of woolen garments, cotton and synthetic yarns. As per a survey, 95 percent of the

country's woolen industry is located in Ludhiana. 30 percent of the country's cotton industry is also based at Ludhiana. 1/3rd of the total power available in the State of Punjab is consumed in Ludhiana only. The steel based industry situated in this city consists of cycle and auto parts and foundries. Besides this, rubber based industry manufactures tyres and tubes. As much as 70 percent of the country's cycles and cycle parts are also manufactured at Ludhiana.

Industrialization and development had their fallouts too. What ails Ludhiana is suffered by Budha Nullah.

Budha Nullah is a seasonal water-stream and passes through the highly populated Ludhiana district. As per the survey carried by the Department of Science, Technology and Environment; Budha Nullah originates from village Kumbh Kalan and its confluence point with the river Sutlej is near village Valipur. Budha Nullah has a sinuous course and the width of the channel varies from place to place. It is a flooding stream during the rainy season.

Five writ petitions, out of which two have arisen out of a suo-motu notice taken by this Court, have been on the board of this Court for long. They all concern Ludhiana and Budha Nullah. The issues raised in these writ petitions essentially are the concerns of all well-meaning citizens, i.e. how to make Ludhiana and Budha Nullah pollution-free and ensure public hygiene so that the contaminated water passing through Budha Nullah, which ultimately merges in the river Sutlej, does not become a source of health hazard and cause epidemic. During the course of various hearings, CWP No.7036 of 2005 titled as '**Nirbhai Singh v. State of Punjab**' became the lead case to evolve a comprehensive plan and strategy to make Ludhiana and Budha Nullah

free of the ill-effects of rapid, haphazard and unplanned industrial growth.

Industrialization and technological progress had caused a negative impact on the environment in terms of pollution and degradation, and had stressed the environmental system due to accumulation of the stock of wastes. Pollution of water, air and atmosphere are the bye-products of economic development, particularly industrialization and urbanization. It is an admitted fact that air and water pollution in the developing countries cause heavy toll of human life through ill-health and premature mortality. It is the poverty struck population, i.e. lowest strata of the society, which suffers most from the onslaught on the nature. Therefore, the first writ petition viz. CWP No.7036 of 2005 titled as '**Nirbhai Singh v. State of Punjab**' in which suo-motu notice was taken, originated out of a complaint received by the Chief Justice of this Court from a prisoner of Central Jail, Ludhiana. Nirbhai Singh was undergoing rigorous imprisonment for ten years. In his communication addressed to the Chief Justice of this Court he stated that 10/12 chemical factories situated in front of the jail emit black smoke after 5.00 p.m. till the early morning; due to which inmates of the jail suffer from chest/cough ailments throughout the night and itching in their eyes. A grievance was made that the smoke emitted from the chimneys of the factories engulfs the barracks of the jail and makes the prisoners feel as they are confined in gas chambers. It was stated that the prisoners are reminded of the treatment meted to the Jews by Hitler in the gas chambers. A clarion call was given to redress the grievance of the petitioner. This communication was received in the Chief Justice Secretariat on 9th November, 2004. An Administrative Judge of this Court

directed the District and Sessions Judge, Ludhiana to submit his report after visiting the Central Jail, Ludhiana. In its report, the District and Sessions Judge, Ludhiana submitted that the dyeing mills are situated along Budha Nullah in front of the jail compound and these dyeing mills were constructed in the year 1991. The Deputy Commissioner, Ludhiana, who was requested to initiate necessary action, shifted the responsibility to the Punjab Pollution Control Board (hereinafter referred to as, 'PPCB'), saying that the dyeing units have received their licences from the PPCB. The PPCB and the 24 dyeing mills passed the blame upon Municipal Corporation, Ludhiana stating that the entire city's waste/garbage is thrown on the banks of Budha Nullah near the factories and when the same is set on fire smoke emanates out of it which creates pollution in the jail. Since nobody was ready to own-up the responsibility, the Administrative Judge recommended that the communication received from the convict requires judicial intervention.

Therefore, the Court suo-motu took cognizance and issued notice on 6th May, 2005.

The PPCB in its reply stated that the smoke emitted by nine industries was within the permissible limits prescribed by the Board whereas, in case of two industries the concentration of particulate matter was found to be beyond the said limits. It was further stated that every day 400 tons of municipal solid waste from various parts of the city were brought to the dumping site at Tajpur road and the dumping site is near the industries and at a distance of 500 meters from the Central Jail, Ludhiana. It was further stated that a number of trucks carrying municipal solid waste of Ludhiana city move on the road passing in front of the Central Jail, Ludhiana. The trucks carrying the municipal solid waste are also not in a good condition and a lot of smoke and soot is emitted from

their exhaust pipes. After the above said reply was filed by the PPCB, a notice was issued to the Municipal Corporation, Ludhiana.

The Joint Commissioner, Ludhiana in its affidavit dated 27th July, 2005 stated that the Municipal Corporation, Ludhiana has a dumping ground in the area of village Jamalpur, which is spread over an area of approximately 16 acres. The solid waste generated within the city is duly lifted and transported in covered-body trucks to the dumping ground and sometimes incidents of fire had taken place, however, the fire was immediately doused off. In the affidavit, it was further stated that Municipal Corporation, Ludhiana had already purchased approximately 21 acres of land in the area of Noorpur Bet on payment of Rs.1.25 crores for setting up of a Solid Waste Treatment Plant, for which a memorandum of understanding has already been entered into with a Canada based company.

Thereafter, again the District and Sessions Judge, Ludhiana was asked to submit a status report. On 23rd August, 2005 in its status report, the District and Sessions Judge stated that 28 dyeing units are operating in front of the Central Jail and furthermore, migrant labourers and rag-pickers set the garbage on fire and as such foul smell is emitted causing discomfort to the prisoners.

When the Court was in the midst of redressing the grievance of the prisoners, a national daily newspaper (The Tribune) published a series of articles under the heading of 'Killer Drains of Punjab'. One of the articles in its edition published on August 28, 2006 was under the heading of 'Killer Drain I – Budha Nullah gets more septic – 3 lakh kilolitre sewage discharge daily'. The article stated that from the banks of Budha Nullah at Badi Haibowal, one will witness something utterly grotesque and due to low water and shockingly high untreated domestic

and industrial sewage discharge, the Nullah has ceased to flow. It raised the concern that for lack of water for dilution of waste and unabated discharge of raw sullage into the Nullah, jet black stinking water is carried by the Nullah and there is no semblance of life. It was observed that one will find animals stuck in the sludge and chunks of freshly scraped animals' flesh, mainly of pigs, whose meat is openly sold from the outlets thriving on the Nullah's banks. It was further reported that daily industrial effluent discharge of 60,000 cubic metres comprising poisonous heavy metals like arsenic, chemicals like cyanide, harmful pesticides and toxic organic compounds are thrown in the Nullah. The stench emitted from the Nullah is lethal. People have to endure this as they have no other choice. The article further quoted a Professor from the PGI's Community Medicine Department, who stated that if remedial measures are not taken, there can be severe outbreak of diseases, some of which have high mortality. The correspondent stated that Budha Nullah, once the lifeline of Ludhiana, is victim of official apathy, as 95 percent of the total waste is discharged by the Municipal Corporation in the Nullah. Furthermore, 12 Municipal Committees throw waste into the river Sutlej and Ludhiana Municipal Corporation was the maximum contributor of pollution load to the river through Budha Nullah. It was further mentioned that Ludhiana, a thriving, affluent and prosperous town; had no Solid Waste Material Treatment Plant. Disposal of the waste into Budha Nullah was conceived as a temporary solution and continuous discharge of pollution into Budha Nullah had contaminated Ludhiana city's drinking water sources. Furthermore, the water from the Nullah was used for drinking purposes and was a cause of massive outbreak of gastroenteritis. The second part of the article was carried by

The Tribune in its edition dated 29th August, 2006 and the third part in edition dated 30th August, 2006. In these articles, an incident of a resident of Ludhiana city was reported, who was carrying toxic lead in her bloodstream for years. According to the Gastroenterologist of Repute, increased number of patients with lead poisoning caused by the industrial pollution of ground water were arriving at the hospitals of Ludhiana. It was stated that in the residential areas, which are situated near Budha Nullah, the lead poisoning has been reported in high numbers as electroplating and battery manufacturing units were contributing to the pollution load.

A Division Bench of this Court took suo-motu note of the news items published in The Tribune on 28th August, 2006; 29th August, 2006 and 30th August, 2006, and observed that the most prosperous town of the State is on the verge of a huge human tragedy, and thus, intervention of the Court was called for to take immediate and radical remedial measures. The suo-motu notice taken on the articles published in The Tribune was assigned CWP No.13881 of 2006 and was titled as **‘Court on its own motion v. State of Punjab’**.

During the pendency of these two writ petitions, i.e. (1) CWP No.7036 of 2005 titled as **‘Nirbhai Singh v. State of Punjab’** and (2) CWP No.13881 of 2006 titled as **‘Court on its own motion v. State of Punjab’**, on intervention of the Court various steps were taken to clean the Budha Nullah of pollutants. Then another writ petition viz. CWP No.14744 of 2007 titled as **‘Sant Singh Namberdar and others v. State of Punjab and others’** was filed by various residents of village Beniwala stating that this Court should take immediate steps for construction of a drain to Budha Nullah, as due to the stoppage of drain, which carried the

waste through the village pond to Budha Nullah, there is accumulation of sewer water and rainy water in the village due to overflowing of pond of the village. It was urged that it is causing health hazard. The grievance of the petitioners was a result of the action taken by the authorities to close all the drains, which from various villages carried sewer, sludge and pollutants to the Budha Nullah.

When demand of the villagers was being dealt with, industry also came forward raising its own demands by instituting a writ petition viz. CWP No.4472 of 2009 titled as '**Tajpur Road Dyeing and Industries Association v. Union of India and others**'. In this writ petition, a prayer was made that the CPCB be directed to release the subsidy to the extent of 25 percent of the cost of setting up of Common Effluent Treatment Plant (hereinafter referred to as, 'CETP') under the 'Centrally Sponsored Common Effluent Treatment Plant Scheme'. One of the grievances made was that the request of the Dyeing Association that they should be allowed to discharge industrial wastes after treatment into Budha Nullah as water was fit to be discharged into the drains and watercourse, was denied on the grounds, wholly untenable. It was urged that the reasoning advanced by the officers that the experience of 40/50 years shows that the treatment plants were not running regularly and there was no guarantee that the system would run in a foolproof manner should be rejected. In this writ petition, essentially it was prayed that the industry be also allowed to co-exist and the directions issued by the PPCB on various dates under Section 33-A of the Water (Prevention and Control of Pollution) Act, 1974 (hereinafter referred to as, 'the 1974 Act') be kept in abeyance.

Another writ petition, viz. CWP No.8970 of 2009 titled as **‘Dyeing Effluent Treatment Society v. Union of India and others’** was filed by the Dyeing Effluent Treatment Society making a similar prayer as was made in CWP No.4472 of 2009 titled as **‘Tajpur Road Dyeing and Industries Association v. Union of India and others’**.

Since the issues raised in all these five writ petitions overlap, it will be necessary for us to give the gist of various studies carried out under the aegis of this Court, status reports submitted by various agencies, recommendations of various committees appointed and the detailed orders passed in the last five years. This Court has monitored/goaded the all concerned to take active steps for eradication of various ills, facilitated clearance of bottlenecks, cracked whip for stoppage of all sources which polluted and caused contamination in the water carried by Budha Nullah to the river Sutlej. As the Court proceeded with the problem, which was gigantic in nature, it surfaced that till the city life of Ludhiana improves Budha Nullah cannot be saved.

This Court on 19th December, 2006 considered the status report submitted by PPCB on 16th December, 2005 and also the status report submitted by the Executive Engineer of PPCB on 19th December, 2006. After considering the reports, this Court observed that the problem of pollution in Ludhiana city is multi dimensional and the same has occurred on account of unplanned industrialization of the said town. The Court also noticed that no proper sewerage treatment plant has come into existence and the effluents are discharged in the sewer and the same inclusive of industrial waste is being discharged in Budha Nullah, as no solid waste treatment plant commensurate to the waste generated by the city has been set up. After appraisal of the status reports, the

Court was aghast to note that even though four biomedical treatment facilities were established they were not sufficient to cope up with the biomedical waste which originated daily. The Court called upon all concerned to take corrective measures to deal with the waste and effluents in a comprehensive manner. It also called upon the PPCB, the Municipal Corporation and the Deputy Commissioner, Ludhiana to act in cohesion and draw out a plan taking totality of circumstances so that effluents and the waste do not pollute the air, water and cause soil erosion. All the above said three authorities were directed to submit their reports to the District and Sessions Judge, Ludhiana who was called upon to verify the reports with the aid of any agency having necessary expertise.

It will be pertinent to note that the Secretary to Government of Punjab, Department of Science, Technology and Environment had filed an affidavit on behalf of the Chief Secretary, Punjab, in which it was stated that Budha Nullah for the past many decades carries the domestic effluent of Municipal Corporation, Ludhiana and treated/partially treated effluent of various industries located at Ludhiana. In this affidavit it was stated that as per the study conducted by PPCB in August 2006, Budha Nullah carried the pollution load in terms of organic matter (biochemical oxygen demand) as 90 ton per day and total heavy metals as 4.5 ton per day respectively, and the total discharge of sewage effluent by the Municipal Corporation, Ludhiana in Budha Nullah was about 500 million litres per day (MLD). Furthermore, the industrial effluent discharged directly or indirectly through sewer into the Budha Nullah was about 60 MLD and the majority of discharge in the Budha Nullah was of sewage effluent without any treatment. It was informed to the Court that as a

remedial measure, Punjab Water Supply and Sewerage Board (hereinafter referred to as, 'PWSSB') was in the progress of installing three Sewage Treatment Plants (hereinafter referred to as, 'STP') at village Bhattian, Balloke and Jamalpur, and these STPs will ultimately be treating 311 MLD of sewage. It was assured to the Court that the STP at Bhattian was likely to be commissioned by the end of December, 2006 and the other two STPs would be commissioned by the end of June, 2007. It was further stated that 864 industries discharge about 60 MLD of effluent into the Budha Nullah and out of these, 816 industries had installed their Effluent Treatment Plants (hereinafter referred to as, 'ETP') to treat the effluent. Out of the remaining 48 industrial units which are very small, 9 units were in the process of installing ETPs and the remaining 39 had not installed the same. The PPCB had issued directions under Section 33-A of the 1974 Act as amended in 1988 for closure of 15 units and the action was initiated against 24 units, and the opportunity of personal hearing was afforded to them. The Government in its affidavit suggested that following strategy has been drawn for cleaning of Budha Nullah:

- Stoppage of wastewater/municipal waste into Budha Nullah.
- Release of additional water from Sutlej into Budha Nullah.
- Re-modelling of Budha Nullah.
- Bio-fencing along the banks.
- Development of catchment area.
- Providing a 30m wide bio-fence comprising grasses, shrubs and trees to arrest the pollution from non-point sources entering Budha Nullah.

- To identify all the point and non-point sources of pollution including sullage or sewage from the villages.
- Adoption/Establishment of Bio Gas Plant to recover gas from sewage and solid waste.
- Adoption of solar pumping.
- To identify Govt. land all along Budha Nullah for afforestation.

It was stated that to monitor the progress, a meeting was held by the Chief Secretary Punjab on 22nd September, 2006. The proceedings of this meeting were attached as Annexure R-3 to the affidavit submitted in CWP No.13881 of 2006. A perusal of the proceedings (Annexure R-3) reveals that the meeting called by the Chief Secretary of the State of Punjab was attended by Principal Secretary to Govt. of Punjab, Department of Science Technology and Environment; Principal Secretary to Govt. of Punjab, Department of Industries and Commerce; Principal Secretary to Govt. of Punjab, Department of Technical Education; Principal Secretary to Govt. of Punjab, Department of Irrigation; Chief Engineer Drainage; Principal Secretary to Govt. of Punjab, Department of Rural Development and Panchayat; various officials of the Department of Water Supply and Sanitation, Punjab Small Industries and Export Corporation Ltd. (hereinafter referred to as, 'PSIEC'), Punjab State Council for Science and Technology, PWSSB and the PPCB.

In the meeting, Principal Secretary Irrigation stated that the proposal of diverting water from Sutlej/Sirhind Canal into Budha Nullah at a cost of Rs.21.00 crores was not viable for diverting 300 cusecs of water. It was stated that the land on which Budha Nullah flows has been encroached upon by various persons and certain encroachments were

required to be removed. After a detailed discussion, the following decisions were taken by the Committee under the chairmanship of the Chief Secretary Punjab:

- (i) The Department of Irrigation shall be the Nodal Department to execute the work of cleaning of the Budha Nullah per se and Principal Secretary, Irrigation shall be the Nodal Officer to coordinate the activities and contributions of the various departments. (Action: proposed and assigned to Department of Irrigation)
- (ii) The Department of Science, Technology & Environment will constitute a Committee of senior officers at the district level to co-ordinate the activities of various Departments/ Organisations involved in the protection of environment in Ludhiana. The objectives and the terms & conditions of this Committee will be laid down separately. This Committee shall submit their recommendations to the State Level Committee to be chaired by the Chief Secretary.
- (iii) Municipal Commissioner, Ludhiana will take immediate steps to effectively ban dumping of solid waste in and along Budha Nullah. The solid waste be diverted to the sites identified by MC, Ludhiana for the purpose. (Action: proposed and assigned to Department of Science Technology & Environment)
- (iv) PWSSB shall assess the quantity of sewage now and expected discharge at the end of 25 years and ensure adequate sewage treatment capacity.
- (v) PWSSB shall work out the feasibility of outsourcing the operation and maintenance of STPs to private entrepreneurs.

Another meeting was held under the chairmanship of Principal Secretary to Govt. Punjab, Department of Science Technology & Environment on 28th September, 2006, which was attended by the Principal Secretary to Govt. Punjab, Department of Technical Education; Deputy Commissioner Ludhiana; officials of Municipal Corporation Ludhiana, Department of Irrigation, PSIEC, Punjab State Council for Science & Technology, PWSSB, PPCB, Department of Town & Country Planning, Department of Forests, Department of Rural Development & Panchayats, Representatives of various Industries Association and the NGOs. This Committee suggested that Section 144 Cr.P.C. be imposed in the vicinity of Budha Nullah and dumping of garbage be stopped immediately by the Deputy Commissioner/District Magistrate Ludhiana by ensuring administrative back-up including police patrolling and protection of enforcement staff of the Municipal Corporation. It further suggested that policing powers be given to the NGOs and the Municipal Corporation Ludhiana should remove the already dumped solid waste/garbage in and along the Budha Nullah and the discharge of waste water into the Budha Nullah through unauthorized outlets be immediately stopped. The Committee further suggested that the encroachments on the land of Budha Nullah be removed and the possession be taken. PWSSB was called upon for early completion of STPs. The Irrigation Department (Drainage) was asked to prepare all technical details and cost estimate for diverting adequate quantity of water from Sirhind Canal to Budha Nullah through Nillon drain and the Forest Department was called upon to prepare a plan for developing a green belt on the banks of Budha Nullah. The Committee further observed that the various industrial units had not set up ETPs for treatment of their effluent, therefore, a CETP be installed by the PSIEC and public awareness be also created for preservation of environment.

The Committee also noted that the dairy waste generated from dairy complexes based at Tajpur road and Haibowal is another source of pollution.

As a follow-up measure, the Deputy Commissioner Ludhiana also called a meeting of District Level Coordination Committee for prevention and control of pollution in Budha Nullah.

In another meeting held on 11th October, 2006, P.Ram, IAS, Principal Secretary to Govt. Punjab, Department of Technical Education and Industrial Training was appointed as a Project Coordinator for the project to clean Budha Nullah and to coordinate the community based initiatives to achieve the desired objectives. Another meeting was held on 15th May, 2006 under the chairmanship of the Chief Secretary Punjab, which was attended by very high functionaries of the State. It was followed by various other meetings held on 23rd June, 2006 and 17th July, 2006 under the chairmanship of the Chief Secretary Punjab.

The dates, particulars, plans drawn and the strategies made in the various meetings have been given to show that the State was aware of the problem, its root cause and the initiatives required. But since the necessary will was lacking this Court had to cajole, pat and wherever necessary prompt and compel by making observations and issue directions to all the officials to coordinate and act as a team in right earnest for solving the problem and achieving the objectives stated in various meetings. The Court has to assume this role, as who were responsible to govern were lacking necessary sensitivity to the human misery.

Thus, on 29th January, 2007 the Court noticed that the Committee constituted by the Chief Secretary had not perused the voluminous report prepared by the Expert Committee at the instance of Punjab State Human Rights Commission (hereinafter referred to as,

'PSHRC'). The PSHRC had called upon the Committee to give a suggestion on the following terms of reference:

“(A) The basic facts & factors responsible for the dreadful condition of Budha Nallah.

(B) Overall effect of the pollution on human health as well as environmental degradation.

(C) Possible remedial measures by different concerned departments in order to achieve elimination of present state of Pollution and sustain clean conditions.”

The members of the Expert Committee were Dr.K.S. Aulakh, Vice Chancellor, Punjab Agricultural University, Ludhiana; Dr.L.S. Chawla, Vice Chancellor, Baba Farid University of Health Sciences, Faridkot; and Dr.Daljit Singh, Principal, Dayanand Medical College & Hospital, Ludhiana. It goes without saying that these members have achieved eminence in their field of activity. The Expert Committee further constituted a Sub-Committee called Public Health Sub-Committee and its members also hold very eminent positions in their respective fields of expertise. The Expert Committee considered overall effects and consequences of pollutants thrown in Budha Nullah, on human health and environmental degradation. The Expert Committee concluded that the pollution and environmental degradation has led to Faeco-oral bacterial diseases, Faeco-oral viral diseases, Parasitic diseases, Systemic toxicity of heavy metals, systemic toxicity of chemicals and other serious disorders. The finding of the Expert Committee was that the effect of the pollution on environment is disastrous. The water was having extremely high turbidity, much beyond the permissible limits and the dissolved oxygen in the water was nil. The findings of the Expert Committee were summed up in the order dated 29th January, 2007 as under:

“... .. chemical toxins & heavy metals as well as variety of aromatic & aliphatic compounds, normally not present in river water and in a high concentration. There is a possibility of high concentration of toxic substances like amoniacal compounds, nitrites, nitrates, minerals normally not present in river waters. The likely source is industrial effluents as well as sewage, as there is heavy microbiological load in the form of bacteria (E coli, shigella spp, Vibrio cholerae, Salmonella spp etc.), which is an indicator of faecal contamination and evidence of entero viral contamination. Likely source is sewage and animal waste. There is evidence of absence of species of aquatic flora and fauna, which are normally present in fresh water streams. Likely reason is anaerobic and toxic condition of the stream water. There is evidence of progressive biological and chemical pollution of soil on both banks on the river upto 1200 meters. Evidence of presence of toxic chemicals/heavy metals in the food chain i.e. Vegetable and other crops cultivated in areas along the water course/irrigated with its water, reveal evidence of contamination of subsoil water table with chemicals as well as microbiological agents. Extremely unaesthetic conditions exist. The nallah, has an unsightly appearance a foul odour and a potential to breed mosquitoes & other insects. These pollutants flow into river Satluj, wherein there is evidence of pollution for a considerable distance downstream. This has potential of disastrous consequences of aquatic flora & fauna, human health & agriculture of areas downstream, the confluence of Buddha Nallah with Satluj river.”

The recommendations of the Expert Committee suggested measures for sewage disposal; disposal of industrial effluents; disposal of animal excreta; disposal of slaughterhouse waste and provision of piped water supply and regulation of village waste disposal. The Committee further recommended that on sustainable basis there should

be restoration of Budha Nullah, of its width and flow of natural water. It further recommended lining of Budha Nullah to check the seepage of pollutants into the ground water, separate flow of sewage, tree plantation, monitoring of water quality and restriction against drinking water along the course of Budha Nullah. The Committee further called upon the Government to regulate or issue a notification to prevent the irrigation of vegetable crops on the periphery of Budha Nullah with its water full of untreated toxic raw sewage.

It was further noticed by the Court in its order dated 29th January, 2007 that a Committee (hereinafter referred to as, 'the P.Ram Committee') has been constituted under the chairmanship of P.Ram, IAS, Principal Secretary to Govt. Punjab, Department of Technical Education as a Project Coordinator and N.S. Tiwana, Executive Director, Punjab State Council for Science and Technology as a Nodal Officer. Project Coordinator and the Nodal Officer were directed to submit a status report after evaluating the reports submitted by the Committee constituted by the PSHRC.

In pursuance of the order dated 29th January, 2007, the P.Ram Committee submitted its status report dated 26th February, 2007 which forms a part of CWP No.13881 of 2006. The Committee informed the Court that major decisions are required to be taken by the concerned to achieve the objectives of cleaning of Budha Nullah. The Committee noticed that the Court would do a great service to the citizens of Punjab if it could persuade the Government to notify the master plan of all cities of Punjab in the next one year and qua Ludhiana within three months. Underlining the importance of master plan, the Committee stated that what makes a State worth living is its environment. The environment is a result of infrastructure of the city, i.e. roads, water supply, sewerage, electricity, schools, colleges, market places along with the arrangement

for transportation of the people including parking. The Committee stated that the master plan includes incentives and mechanism to encourage the citizens of the city to make optimum use of natural resources. It stated that due to the lack of master plan in Ludhiana, the regulatory authorities are not in a position to control the location of industries, hazardous activities in the non-conforming areas. The concluding part under the heading 'Master Plan' in the report submitted by the P.Ram Committee reads as under:

“This has now become a bane because of untold miseries to the inhabitants by the polluting industry. The State Govt. has made efforts on one or the other occasion to develop special areas for shifting one particular type of industry so that a Common Treatment Plant could be installed for them. But each time, it has failed to achieve this due to lack of political will. Once a Master Plan is notified, it might be much better to direct the Association of each industry to find ways and means for locating all these industries in one area and develop it according to their needs. This might be much quicker and much more successful than the Govt. route.

Till the Master Plan is notified, the Govt. should ban locating any new industry in Ludhiana and expansion of existing units.”

The P.Ram Committee observed that the sanitation comprises collection, transportation, treatment and disposal of sewage, storm water, solid waste including hazardous waste, biomedical waste and plastic waste, as well as providing safe and reliable water supply, electricity, roads and transportation system. The Committee also suggested the options for disposal of treated sewage alternatives and utilization of treated sewage for irrigation of land. It further stated that the STPs to be commissioned will be inadequate as they will be treating only

311 MLD, whereas the discharge of the city may be to the tune of 750 MLD. The Committee further stated that the reliable projections for the next 30 years should be drawn and adequate STPs should be installed. The Committee further stated that the STPs being installed are basically for domestic sewage. It apprehended that in case a substantial industrial trade effluent is allowed to flow into the STPs, their biological system may not work properly. Therefore, a separate treatment plant for industrial effluents should be set up. The Committee further stated that 4.5 tons of heavy metal was daily discharged through the effluents of the city into the Budha Nullah. Therefore, a CETP for treating the waste from electroplating industry was necessary. The Committee stated that nearly 500 electroplating units in Ludhiana were called upon to form a Special Purpose Vehicle for making arrangement for transport of their effluents and its treatment through CETP. The Committee noticed that the growth of Ludhiana from a small town to a metropolitan city necessitated the city planners to foresee the future expansion, which according to the Committee was imminent. The Committee felt that there was an urgent need to draw a comprehensive plan to deal with the storm water, solid waste, hazardous waste, biomedical waste, plastic waste, garbage and cow dung. The Municipal Corporation was also called upon to set up a treatment facility for animal waste generated by the slaughterhouse, which was being thrown into the Budha Nullah. The Municipal Corporation was reminded of its duty to take cognizance and stop dumping of husk ash by some industries and other users in and around Budha Nullah. Regarding the role of Municipal Corporation, the Committee observed as under:

“(i) This brings us, within the city limits, to the question of existence of Budha Nallah itself. It is common knowledge as also brought out by the Expert Committee appointed by the Human Rights Commission that a lot of

garbage is being thrown by the locals into the Budha Nullah. As a matter of fact, the section of Budha Nullah has substantially been reduced by dumping of solid waste over the years. The Municipal Corporation, instead of banning solid waste and removing solid waste already dumped, has constructed roads on the dumped solid waste, thereby reducing the cross-section of Nullah. It has, therefore, become a violator itself in terms of encroaching/damaging the Budha Nullah.

There are a lot of other encroachments too. P.Ram Committee had directed the Municipal Corporation to demarcate the alignment of Budha Nullah with the help of Department of Irrigation which is the owner of the land of Nallah and the district revenue authorities. The Department of Forests and some NGOs would help in erecting pillars and barbed wire fencing. The Municipal Corporation has been directed to remove temporary encroachments immediately. In case of permanent encroachments, the Department of Irrigation would file cases before the Sub Divisional Magistrate for evicting the encroachers. Thereafter, the Department of Forests with the help of NGOs would provide bio-fence in the shape of Vetiver grass, shrubs and trees so as to arrest the flow of any chemicals including fertilizers and pesticides in the non-point run off into the Budha Nallah.”

The recommendations of the Committee were summed up as under:

- “(i) Notify the Master Plan of Ludhiana within three months.*
- (ii) Ban new industry and expansion of existing industry till the notification of the Master Plan.*
- (iii) Ban discharge of treated or untreated sewage into Budha Nullah. The entire treated effluents shall be used for irrigation. Storage arrangements to be made for no demand period during rainy season.*

- (iv) *Ban dumping of solid waste of any type on the banks of Budha Nullah. Impose Section 144 along the length of Budha Nullah within the city, if need be, to ensure total compliance.*
- (v) *Outsource the handling of solid waste management on the latest international standards within three months. As a matter of fact, the total infrastructure of Ludhiana such as sewerage, water supply, roads, electric supply, transportation including parking, open spaces need to be revamped to make Ludhiana a world class industrial destination with world class quality of life.*
- (vi) *Demarcate the entire length of Budha Nullah. Remove encroachments. NGOs could be involved to protect the sanctity of green belt.*
- (vii) *Convert the whole Budha Nullah into the green belt acting as a bio-fence to filter out chemicals in the non-point run off from the city into Budha Nullah.*
- (viii) *Engage Department of Drainage to remove solid waste dumped in Budha Nullah and shift to the designed land fill sites of the Municipal Corporation. Take steps to ensure 15 acres of land required for setting up of bio-gas plants to generate 9 MW power from cow dung produced in dairies of Ludhiana. Outsource the work of setting up bio-gas plants for the above purpose.*
- (ix) *The storm water drainage infrastructure has been totally ignored by the Municipal Corporation and is already creating serious problems. Planning, designing and construction of storm water, drainage system should be taken up on priority.*
- (x) *PPCB should strengthen its scientific staff to monitor the industry in Ludhiana to ensure 100%*

compliance with the standards prescribed by the Board.

- (xi) PPCB and M/s Nimbua Green Field (Pb.) Limited should take immediate steps to either acquire 100 acres of land by the side of the existing hazardous waste management site or acquire land on a new site to provide capacities for the next 50 years.*
- (xii) All small electroplating industries must commence transporting their effluents to CETP in Focal Point VIII by 31.3.2007 failing which they should be closed with effect from 1.4.2007. Similarly, all textile dyeing units discharging into Budha Nullah must either re-circulate their effluents or stop discharging the effluents into Budha Nullah by 31.3.2007 failing which they should be ordered to be closed.”*

On 28th February, 2007, this Court called upon the Chief Secretary to Govt. of Punjab to file an affidavit setting out a minimum timeframe dealing with all the points and recommendations contained in minutes of the P.Ram Committee. Furthermore, the Chief Secretary was also called upon to hold regular meetings to monitor the implementation of the recommendations of P.Ram Committee so that effective steps necessary for solving the problem are initiated to achieve meaningful results. In pursuance of the order dated 28th February, 2007, the Chief Secretary Punjab filed an affidavit, wherein it was stated that a deadline was fixed to finalize the master plan of Ludhiana city before 29th February, 2008. In the affidavit it was stated that with regard to the domestic sewage and industrial effluents, STP at Jamalpur with a capacity of 48 MLD was being commissioned and the work was in progress. Another STP at Bhattian to treat 111 MLD was commissioned

and was under stabilization, whereas the work for setting up of STP with a capacity of 152 MLD at Balloke was in progress. It was further stated that the PWSSB has been directed to prepare a plan for tertiary treatment & recirculation in consultation with the Municipal Corporation and such a scheme was to be financed by the Municipal Corporation. Furthermore, the Municipal Corporation had shifted dumping of solid waste and garbage from Budha Nullah to other places and 75 persons who had thrown the garbage were prosecuted by the Municipal Corporation. Furthermore, additional land of 21 acres was acquired by the Municipal Corporation in Noorpur Bet area for management of solid waste. In the affidavit it was further stated that demarcation of the area along Budha Nullah was in progress and a memorandum of understanding was to be signed with an NGO for converting both sides of Budha Nullah into the green belt. A proposal to set up biogas plant to generate 9 megawatt power to take care of dairy waste was also planned. The Municipal Corporation was also called upon to submit a plan for storm water drainage and the Department of Industries and Commerce had constituted a Special Purpose Vehicle for commissioning of CETP.

However, while noticing the initiatives being taken and the promises made by the Chief Secretary in its affidavit, this Court in its order dated 10th May, 2007 noted that no effective steps have been taken for removal of slums and encroachments which have come up along Budha Nullah. It was further noticed that for treatment of effluents by the textiles, dyeing and electroplating units, the PPCB has not taken effective steps.

On 18th July, 2007, this Court had passed a detailed order wherein it was recorded that the recommendations of the P.Ram Committee were considered in a meeting conducted by the Chief

Secretary, Punjab on 28th June, 2007 and thereafter a presentation was made to the Chief Minister, Punjab on 6th June, 2007 and that another meeting was held on 12th July, 2007. The Committee acquainted the Court with the following facts:

- (a) That the master plan of Ludhiana shall be notified on or before 29th February, 2008 and neither any new industry nor the expansion of any existing industry shall be permitted within the municipal limits of Ludhiana, except in the already earmarked areas, till the master plan is notified.
- (b) The meeting held under the chairmanship of Chief Secretary Punjab took note of the observations of the Nodal Officer that not only Ludhiana is discharging its domestic sewage into river Sutlej but it is also receiving the sewage from the towns right from the starting point in Himachal Pradesh. It was suggested by the P.Ram Committee that the Municipal Corporation Ludhiana has an option either to use the treated sewage on the land for irrigation or impart tertiary treatment, after which the sewage can be re-circulated for many purposes in the city of Ludhiana. The Committee further suggested that by discharge of such effluents by any activity into the river, it cannot be permitted to be polluted as the water from the river is a major source of consumption for the inhabitants of Ludhiana.
- (c) That Bhai Ghanahya Charitable Society, Baddowal had volunteered to undertake the plantation work along the entire stretch of Budha Nullah barring the stretch falling within the city area so that the green belt can act as a bio-fence to filter out the chemicals.

- (d) Regarding the stretch of Budha Nullah falling within the city area, 43 industries had come forward to undertake the work of developing the green belt along the stretches allotted to them.
- (e) For de-silting of Budha Nullah within the municipal limits, Municipal Corporation Ludhiana was directed to provide eight more Tippers to the Department of Irrigation (Drainage).
- (f) Regarding removal of garbage along the banks of Budha Nullah beyond the municipal limits up to the point falling under river Sutlej, the Department of Irrigation was directed to prepare a project proposal for cleaning of Budha Nullah.
- (g) The Committee further observed that cow dung/other waste of dairies will not be allowed to be discharged into the sewers and some collection sumps would be provided at the level of each dairy.
- (h) The Municipal Commissioner, Ludhiana was further directed to make arrangements with regard to the dumping/removal of solid waste, normal garbage, dairy waste, boiler ash and slaughterhouse waste within a period of two months.

Furthermore, this Court on 22nd August, 2007, after a perusal of the affidavit of Chief Secretary Punjab and the status report submitted by the P.Ram Committee, categorized the issues which required attention under following different heads:

- “(i) Notification of Master Plan of Ludhiana;*
- (ii) Banning of New Industry/Expansion of Existing Industry;*
- (iii) Banning of discharge of treated or untreated sewage into Budha Nullah. The entire treated effluent*

shall be used for irrigation. Storage arrangements to be made for no demand period during rainy season. This para has further been sub-divided into different paragraphs under the heading;

- (a) Treatment;*
- (b) Augmentation of Treatment Facility;*
- (c) Utilization of treated sewage – On land for irrigation – treatment and recirculation;*
- (iv) Using of treated industrial effluents for irrigation – upstream of city limits;*
- (v) Demarcation of the entire length of Budha Nullah and remove encroachments;*
- (vi) Conversion of the whole Budha Nullah into a green belt acting as a bio-fence to filter out chemicals in the non point run off from the city into Budha Nullah;*
- (vii) Greening of Budha Nullah within the city area.*
- (viii) Engaging Departments of Drainage to remove solid waste dumped in Budha Nullah and to shift to the designated land fill sites of the Municipal Corporation.*

To take steps to ensure 15 acres of land is acquired for setting up biogas plants to generate 9 MW power from the cow dung produced in dairies of Ludhiana.

To outsource the work of setting up biogas plants for the above purpose. This has been divided into sub-heads;

- (a) De-silting of Budha Nullah within city limits;*
- (b) Removal of garbage along the banks of Budha Nullah beyond Municipal Committee limits upto the fall point in river Sutlej;*
- (c) De-silting of Budha Nullah downstream of city area of Ludhiana;*
- (d) Waste to Energy.”*

Various directions were issued to the concerned authorities to deploy their resources and energy so that the issues noticed by the

Court receive the required attention. The Court further directed PPCB and M/s Nimbua Green Field (Pb.) Limited to take immediate steps to acquire 100 acres of land by the side of the existing hazardous waste management site or acquire the land on a new site for a capacity for the next 50 years. It was ordered that the proposal submitted by the P.Ram Committee that all the textile/dyeing units in Ludhiana should be directed to set up their treatment plants individually or collectively to achieve Zero Liquid Discharge by August 31, 2008 be implemented. Furthermore, the electroplating units in Ludhiana were also directed to achieve Zero Liquid Discharge and re-circulate their treated effluents in their process by August 31, 2008. It will be apposite here to notice the recommendations made by the P.Ram Committee as under:

“1. Municipal Corporation Ludhiana needs to be directed to:

- (i) Ensure complete desilting of sewers and Budha Nullah upstream of city, within the city as well as downstream of the city.*
- (ii) To immediately undertake the work of segregation, collection and transportation of solid waste to the designated landfill sites without waiting for the proposed JNNURM project.*
- (iii) To identify landfill sites for the disposal of all categories of solid, industrial waste such as boiler ash and plastic waste.*
- (iv) To immediately stop discharge of the cow dung/liquid waste from dairies located along Budha Nullah into the municipal sewers or in Budha Nullah.*
- (v) To immediately hand over 2.42 acres of land adjoining Haebowal Power Plant to PEDDA.*
- (vi) To identify the land for setting up of power plants based on cow dung for complete utilization of*

cow dung being generated from the city of Ludhiana.

2. *To direct Deputy Commissioner Ludhiana to:*

- (i) Hold fortnightly meetings to coordinate the activities of various departments including Municipal Corporation, Department of Irrigation (Drainage) and Punjab Pollution Control Board.*
- (ii) Oversee the development outside the city limits to ensure self contained units with zero liquid discharge and independent treatment of solid waste.*

3. *To direct Punjab Pollution Control Board to:*

- (i) Submit time schedule for the expansion of "Common Hazardous Waste Site" presently under construction at Nimbuan.*
- (ii) Immediately stop the discharge of industrial effluents from industries located along Budha Nullah.*
- (iii) Ensure that electroplating and textile/dyeing industry achieves zero liquid discharge by August 31, 2008 as proposed in the last status report submitted to this Court.*
- (iv) To enforce electroplating industry to become members of the CETP electroplating for full operationalisation of the plant.*
- (v) Enforce industry to install 'On-Line Monitoring System' in a time bound manner as already stipulated in the previous status report.*

4. *To direct Punjab Water Supply and Sewerage Board and Department of Local Bodies to ensure:*

- (i) Preparation of Detailed Project Reports for augmentation of the existing STPs based on zero liquid discharge and complete reuse of treated sewage within three months.*

(ii) *Submission of time schedule for the execution of projects related to augmentation of STPs and setting up of new STPs.*

5. *To direct Punjab Energy Development Agency to:*

(i) *Prepare Detailed Project Reports (DPRs) for setting up of power generation plants based on cow dung.*

(ii) *Prepare DPRs for setting up of mini hydel projects along the entire stretch of Budha Nullah.*

6. *To direct Department of Soil and Water Conservation to provide time bound schedule for the implementation of:*

(i) *Project for applying treated effluents of M/s Malwa Industries for on to land for irrigation.*

(ii) *Project for applying sullage of Machiwara town for on to land for irrigation.”*

After noticing the recommendations of the Committee, the Court issued following directions:

“The Municipal Corporation Ludhiana; Deputy Commissioner Ludhiana; Punjab Pollution Control Board; Punjab Water Supply & Sewerage Board and Department of Local Bodies; Punjab Energy Department Agency and Department of Soil and Water Conservation are directed to file status reports on the next date of hearing in terms of the recommendations of P.Ram Committee aswell as in terms of the order passed by the Chief Secretary to Government of Punjab.

In paragraph 4 of the affidavit of Mr.B.K. Gupta, Joint Commissioner, Municipal Corporation Ludhiana, it has been stated that the estimated cost of augmentation of sewerage treatment plant at Jamalpur from 48 mld at Ludhiana is Rs.19.38 crores, cost of augmentation of sewerage

treatment plant at Bhutan from 111 mld to 211 mld at Ludhiana is Rs.46.98 crores, cost of augmentation of sewerage treatment plant at Balloke from 152 mld to 252 mld at Ludhiana is Rs.35.64 crores, cost of construction of new main pumping station and sewerage treatment plant of 177 mld at Balloke is Rs.156.77 crores and cost of construction of new main pumping station and sewerage treatment plant of 165 mld at Bhamian is Rs.131.09 crores and the total estimated cost of these five works would be Rs.389.86 crores. Municipal Corporation Ludhiana is not in a position to bear this cost and, therefore, Government of Punjab has been requested to fund these projects.

As per the report of Central Pollution Control Board, which has also been filed before us, the wastewater in Ludhiana is directly discharged into Budha Nallah. The proposal for intercepting wastewater inflows in the Budha Nallah is yet to materialize. Thus, Budha Nallah continues to be receptor of sewage, industrial effluent, solid waste and other wastes. Approximately 540 million liter per day (mld) of wastewater is discharged into Budha Nallah, and about 100 mld is directly discharged into Sutlej river from the sewage treatment plant, out of which about 60 mld is on account of industrial effluents. The treatment capacity created/being created for 311 is domestic sewage. There is, thus, a gap of about 270 mld.

Ludhiana being a growing city, the sewage generation is steeply increasing and the gap between generation and treatment capacity is widening. Therefore, this aspect of the matter has to be addressed by the State Government and in the next meeting to be conducted by the Chief Secretary to Government of Punjab, the functioning of these treatment plants for treatment of domestic as well as industrial waste and the amount required, be considered and report be filed.”

The Court in its order dated 8th January, 2008 further recorded the contention of counsel for the PPCB that open drains in

Ludhiana are required to be connected with the drainage system so that the sewer and sullage is processed by STPs. On September 18, 2008, this Court directed that the Chief Secretary Punjab should hold a meeting and coordinate with the concerned departments including the PPCB for implementation of the recommendations of the P.Ram Committee. On 11th December, 2008, the Chief Secretary submitted a status report and stated that the Government has received an interim report from the National Environmental Engineering Research Institute, Nagpur (hereinafter referred to as, 'NEERI'). It was ordered that the Chief Secretary should discuss the interim report submitted by NEERI and file a progress report. On 29th December, 2008, a meeting was held under the chairmanship of Chief Secretary Punjab, wherein the findings of the interim report submitted by NEERI were considered. The Committee was acquainted that as per the study conducted by NEERI, the main findings are as under:

"i. Whereas the quality of the river water is A-Class (BOD less than 5mg/1, D.O. 8.2 mg/1) immediately upstream of the outfall of STP Bhattian, it gets deteriorated to E-Class (BOD 32 mg/1 with DO as nil) immediately thereafter. Similarly the quality of river water is rendered E-Class after its confluence with Budha Nallah.

ii. Since no dilution is available in Budha Nallah, direct discharge of domestic sewage or industrial effluents, including washings from cattle sheds, needs to be controlled in view of the contamination of receiving surface water bodies and possibility of groundwater contamination in future too.

iii. Out of the three STPs only STP at Bhattian is operational under stabilized conditions and the remaining two STPs at Balloke and Jamalpur are still under stabilization though being commissioned in June 2008. In

addition the flows in these two STP are below the designed capacity, whereas excess flow is being received at STP Jamalpur. No methane generation is achieved on a sustainable basis from the STPs of Balloke and Jamalpur.

iv. Out of total 272 textile dyeing units, 65 units were monitored by NEERI. The ETPs in only 43 units were found operational, while in the remaining 22 units ETPs were not operational. Only 4 units were found to be meeting the stipulated norms for discharge into the inlet surface waters.

v. In case of textile units discharging onto land, it was observed that partially treated effluents with residual color are discharged onto land for irrigation. In view of the possibility of groundwater contamination and deterioration in soil fertility in future, due to continuous application, it is necessary for the industry to ensure that the treated effluents discharged must meet the standards for inland surface water with no residual color through upgradation of the existing ETP based on scientific design and their effective operations.

vi. Out of total 349 electroplating units, 327 units are members of CETP. Out of the 22 electroplating units with individual ETPs 20 units were monitored. Only two units were found to conform to the standards for discharge into inland surface water.

vii. The CETP for electroplating units meets the discharge norms for inland surface water with respect to all the parameters including heavy metals except TDS, chlorides and sulphates. The remaining small scale units with individual ETP should join the CETP for ensuring effective treatment of toxic effluents. The CETP may be upgraded for zero liquid effluent discharge including reject management.

viii. The medium and large scale electroplating industries at individual level need to upgrade the ETPs aiming at zero liquid effluent discharge.

ix. State regulatory authorities must strictly monitor the upgradation of ETPs and the quality of effluents discharged and should not allow the discharge until the ETPs are upgraded and perform efficiently to meet the design norms.

x. Existing STPs treating combined effluents will not perform optimally when operated at designed capacity until the individual ETPs are upgraded and operated efficiently to meet the prescribed standards for inland surface waters including complete color removal.

xi. The incoming husk from cattle sheds are not only hindering the operation of pumps at STP Balloke, but the UASB reactors inlet and outlet are getting choked, and thick carpet of floating husk is formed at the surface of the reactors requiring regular cleaning. It is therefore necessary to segregate the cattle dung washings and restrict its discharge into the drains leading to STP.

xii. The average flow of STP Jamalpur was observed to be around 65 MLD against the designed capacity of 48 MLD. This flow needs to be controlled for stabilizing the UASB system. Once stabilized and operated at designed flow, it is necessary to assess plant performance since the ratio of domestic sewage to industrial effluents in combined wastewater received at STP is quite high.

xiii. It is observed that the finally treated effluent from STP Bhattian conforms to the norms for discharge into inland surface water. The treated effluent is still toxic as the bioassay test reveals that 100% mortality within 24 hours exposure. The toxic nature of treated wastewater may have toxicity effect to biological life if the receiving water body does not have sufficient flow to provide adequate dilution to bring down the concentration to safe level. The DO concentration in the final treated effluents ranged from nil to 0.1 mg/l indicating that polishing pond is not providing any

bio-oxidation. It definitely needs upgradation to bring down the concentration to safe level.”

After detailed discussions on the findings of NEERI, the following decisions were taken by the Committee:

“Electroplating Industries

- i. All the remaining small scale units must join the CETP by 31/03/2009.*
- ii. The existing CETP located at Phase-VIII, Focal Point, Ludhiana will be upgraded to achieve the prescribed norms by 31/12/2008.*
- iii. The medium and large scale units at individual level also need to upgrade their ETPs accordingly, and ultimately aim at zero liquid effluent discharge. PPCB in consultation with the industry should submit by 13/01/2009 an activity-wise, time-bound schedule to achieve the same.*

Dyeing Industries

- i. PPCB should take action against the textile dyeing units directly discharging into the Budha Nallah, to stop this practice.*
- ii. PPCB in consultation with dyeing associations should submit by 13/01/2009 an activity-wise, stage-wise action plan giving the various milestones to be achieved, so as to upgrade their ETPs within 6 months i.e. by 30/06/2009.*

Sewage Treatment Plants (STPs)

- i. Balloke – The Municipal Corporation, Ludhiana and Punjab Water Supplies & Sewerage Board will make immediate arrangements to effectively control the husk from cattle sheds at the source itself by providing drum screens. The funds to implement the same could be obtained from the P.Ram Committee.*

- ii. *Jamalpur –Necessary steps be taken to stabilize it.*

PWSSB had earlier conducted a feasibility study to segregate the industrial effluents getting emanated from the industrial focal points by setting up of a dedicated CETP at Bhamian Kalan. This proposal is now considered to be most urgent in light of the findings of NEERI and the directions of Ministry of Urban Development, Govt. of India which has already refused to discharge the industrial effluents into the city sewerage.

- iii. *Bhattian – PWSSB should upgrade the polishing pond as it is not providing any bio-oxidation as reported by NEERI. Chlorination of treated effluents needs to be undertaken prior to direct discharge into river Sutlej in view of the high MPN count in the treated effluent.*

6. *The Chief Secretary directed the MC Ludhiana to upgrade the STPs to ensure the treatment to a level safe for discharge into river Sutlej during no-demand period for irrigation. He made it clear that the Municipal Corporation, Ludhiana and the PWSSB stood on the same footing as the private sector as far as compliance with pollution control norms was concerned, and directed the PPCB to ensure due compliance by these authorities also.*

He also directed PPCB to submit a detailed action plan with respect to each recommendation, involving all the stakeholders, in an annotated form – giving the findings of NEERI, the proposed action plan and the time targets to achieve the same, by 13/01/2009.

Further PPCB was directed to advise/direct all industrial units to install online monitoring systems to monitor the working of their individual ETPs, and also the CETP. Till the implementation of this system, PPCB should outsource the work of monitoring of working of ETPs to reputed and

credible institutions like Thapar University, Panjab University and NIIT etc so as to ensure their proper functioning. Separately, PPCB may consider the due recognition of the 6 units where pollution-control measures were found to adequate.”

Thereafter, a status report was filed by the Chief Secretary and this Court in its order dated 5th February, 2009 took note of the action plan prepared by the State in relation to the units situated on the banks of Budha Nullah. The action plan of the State disclosed to the Court reads as under:

“i. All the small scale electroplating industries of Ludhiana will join CETP at Phase-VIII, Focal Point, Ludhiana by 31.03.2009.

ii. The CETP for electroplating industries located at Phase-VIII, Focal Point, Ludhiana will be upgraded to achieve zero liquid discharge by 31.05.2009.

iii. Large and medium scale electroplating units will adopt zero liquid discharge technology by 31.05.2009.

iv. Electromagnetic flow meter for measurement of discharge at inlet and outlet of the treatment facility by the dyeing industries and large, medium scale electroplating industries will be installed by 31.03.2009.

v. All the 49 dyeing industries, which were discharging their treated/untreated effluents directly into Budha Nallah have been issued closure order u/s 33-A of the Water (Prevention & Control of Pollution) Act, 1974. Directions have also been issued to PSEB Authorities for disconnection of electric connection of these industries. Reminder has also been issued to PSEB authorities to comply with the directions.

vi. Commissioning of equipments to upgrade the ETP of dyeing industries to achieve the prescribed standards will be done by 31.03.2009.”

The Court issued directions on the order of even date that the action plan mentioned above should be implemented in its letter and spirit and appropriate proceedings be initiated against those who fail to achieve the prescribed target. The Court also recorded the contention of counsel for the PPCB that 49 industries, which were discharging their treated/untreated effluents directly into the Budha Nullah, have been issued closure order under Section 33-A of the 1974 Act. Furthermore, the Court made the Central Pollution Control Board (hereinafter referred to as, 'CPCB') as a party respondent and directed it to respond to the question whether Budha Nullah and river Sutlej have enough dilution available to take any further load of discharge in them from the industrial or other units. The Court in its order dated 5th February, 2009 concluded as under:

“The affidavit filed by the Chief Secretary suggests that National Environmental Engineering Research Institute (NEERI) has been directed to submit a report regarding the need for enforcing zero liquid discharge from the dyeing units as recommended by the P.Ram Committee. The affidavit states that NEERI is expected to respond to the aforementioned aspect by April, 2009 when a meeting will be convened to discuss the matter. In the circumstances therefore, all we need to say is that NEERI will do well to expedite the report about the need for enforcing zero liquid discharge to enable the Authorities to take a final decision in the matter in the proposed meeting to be held in April, 2009... ..”

To formulate the overall view and have the entire gamut of the problem facing Ludhiana city and Budha Nullah, which has ecological ramifications, it is necessary to take a brief note of the study carried by the CPCB. The CPCB assessed the existing situation of the

pollution problem and suggested remedial measures to maintain water quality of river Sutlej. The study area of CPCB included Ludhiana, which as per the census of 2001 had a population of 13,95,053. The CPCB further noticed that Ludhiana was having eight large integrated knitwear factories, roughly 6,000 small to medium sized knitwear factories, 10 big hosiery yarn mills and 150 small to medium sized worsted and woolen yarn industries. There were also firms manufacturing bicycles, machine tools, sewing machines, generators, diesel engines, tyres & tubes and other consumable goods. CPCB stated that the municipal sewage having quantity of 500 MLD, dyeing effluent of 100 MLD and electroplating effluent of 4 MLD quantity are being discharged into the Budha Nullah. Thus, as per CPCB the total discharge of effluents directly or indirectly into the Budha Nullah amounted to 604 MLD, whereas STPs in the Ludhiana city had a capacity of 311 MLD. The locations of three STPs along the Budha Nullah are as under:

- STP-1 at Bhattian (111 MLD)
- STP-2 at Jamalpur (48 MLD)
- STP-3 at Balloke (152 MLD)

Thus, the existing infrastructure lacked the capacity to treat 604 MLD effluent/sewage discharge. CPCB further noticed that STP-3 at Balloke with a capacity of 152 MLD was not in operation and the entire untreated sewage was being discharged into Budha Nullah. After close examination of STP-1 and STP-2 at Bhattian and Jamalpur respectively, it was stated that these STPs were underutilized. Thus, CPCB concluded that the sewage generation, capacity and treatment has a wide gap and is grossly inadequate.

This Court with dismay and anguish notices that all the efforts made by the Court since December 2006 had no effect and all the meetings held by various officials of the State had achieved nothing. The

findings of CPCB were not only startling but also brought into light that all the efforts and assurances given by the State authorities were nothing but mere an eye-wash.

CPCB further stated that there were 268 dyeing industries in Ludhiana and all of them were issued directions by PPCB under Section 33-A of the 1974 Act to upgrade their existing ETPs up to 31st March, 2009 to achieve the prescribed standards. Furthermore, out of 444 electroplating industries in Ludhiana, 388 industries had become members of CETP while the remaining 46 industries had not done so. CPCB further stated that the water quality of river Sutlej at Ludhiana after meeting Budha Nullah was observed to be grossly polluted in terms of BOD, which is an important indicator of water pollution. Furthermore, the BOD value was more than ten times than its desired level. The recommendations of CPCB and its conclusions are reproduced below:

“5.0 Recommendation

In order to improve the water quality, following steps desire consideration:

1. The operation of STP has to be optimized for reducing pollution load in Budha Nallah.

- Immediate start of STP at Balloke.*
- STP at Jamalpur and Bhattian shall operate with designed capacity/load.*
- Capacity of sewage treatment plants must be enhanced to the maximum available load.*

2. CETP shall be operated properly to meet the prescribed norms.

- Compulsory set up of CETP in important industrial clusters for treatment of the wastewater.*

3. No industry should be permitted to discharge untreated/partially treated effluent into Budha Nallah.

- *Industries with partial treatment facilities should operate to the capacity for which facility could treat the effluent upto the prescribed standards.*

4. *Punjab State Pollution Control Board shall update the status of compliance of the industries.*

5. *Following this action plan, treated load of Budha Nallah can be computed and thereafter dilution factor could be evolved.*

6.0 Conclusion

- *The flow and water quality data of River Satluj and Budha Nallah indicates that any addition of untreated/partially treated effluent will further deteriorate the water quality of River Satluj, downstream of confluence of Budha Nallah as enough dilution is not available to take any further load.”*

This Court on 9th August, 2010 called upon PPCB to submit a status report. In the affidavit filed by Tejinder Kumar, Environmental Engineer, Regional Office, Ludhiana, it was stated that there are two major sources of water pollution in Ludhiana, i.e. domestic effluents and industrial effluents. It was estimated that about 350 MLD sewage/sullage is generated within the limits of Municipal Corporation Ludhiana and the same is discharged into the Budha Nallah. PWSSB has installed three STPs with a capacity 111 MLD at village Bhattian, 152 MLD at village Balloke and 48 MLD at Jamalpur to treat the sewage of Ludhiana under Sutlej Action Plan. Therefore, the total treatment capacity as per PPCB for the domestic effluents was 311 MLD viz-a-viz generation of 350 MLD. The STP at Bhattian was underutilized as only 80 MLD waste water was reaching the STP due to silting of certain sewerage lines as well as non-connectivity of certain areas of the sewerage system to the said STP.

According to the status report, all the three STPs were not giving the desired results for COD and TSS Parameters. It was further mentioned that the efficiency of these STPs is hampered as a result of mixing of industrial effluent with the domestic sewage due to common conveyance system and this issue would be sorted out after the CETP for dyeing industries is proposed. Regarding industrial effluents, it was submitted that the main contributors are electroplating and dyeing industries. About 200 MLD of waste water from the industries is generated within Ludhiana city, out of which 150 MLD is generated by small scale dyeing units of which 130 MLD is from five clusters of dyeing units and 20 MLD from scattered units; whereas 50 MLD is generated from the large and medium dyeing units. All these units have their individual ETPs. It will be apposite here to reproduce the following portion of the affidavit filed by the Environmental Engineer:

“... .. Board is maintaining a strict check on these industries since some of these industries have tendency of discharging waste water without treatment to save on the running cost of Effluent Treatment Plants. Presently, the industries of Ludhiana are discharging their effluents into public sewers leading to one of the three STPs installed by Punjab Water Supply & Sewerage Board. However, these STPs have been designed for the treatment of domestic sewage and therefore, the mixing of industrial effluents with the domestic sewage in the sewerage system results in hampering of smooth operations of STPs. There is a proposal to install two Common Effluent Treatment Plants (CETPs) of capacity 100 MLD and 38 MLD at Tajpur Road and Bahadurke Road, respectively. The land for 100 MLD Common Effluent Treatment Plant at Tajpur Road has been identified, whereas, the identification process of land for second Common Effluent Treatment Plant at Village Bahadurke is at final stage. There are about 200 dyeing industries existing in these 5 clusters, which will join three

Common Effluent Treatment Plants. The large scale dyeing industries will also upgrade their individual effluent treatment plants so that the quality of effluent discharged from such industries is at par with the treated effluent discharged from the Common Effluent Treatment Plants.”

It was further stated in the affidavit that the pollution load from electroplating industries is higher as their effluent contains heavy metals. The affidavit further stated as under:

“In order to make sure the treatment of effluents generated from these small scale industries, a Common Effluent Treatment Plant for small scale electroplating industries has been made operational. It is being run under PPP mode by SPV of industries formed by the Department of Industries & Commerce. The Common Effluent Treatment Plant has been installed by M/s JBR Technologies Pvt. Ltd., Phase-VIII, Focal Point, Ludhiana. All the small scale electroplating industries have been persuaded to join Common Effluent Treatment Plant. The effluents generated by different electroplating industries is being collected and transported to the Common Effluent Treatment Plant site for treatment. The CETP is working on the zero liquid discharge technology and no effluent is discharged into Budha Nallah. The treated effluent from the electroplating CETP is reused by dyeing industry adjoining to the CETP. With the installation of the Common Effluent Treatment Plants for small scale electroplating industries, the discharge of untreated electroplating effluent into Budha Nallah has been effectively controlled leading to reduction in the conc. of heavy metals in the Budha Nallah. Strict monitoring and check is being kept by the Board to detect any case of diversion of effluent.”

The CPCB in its latest affidavit dated 13th December, 2010 divulged its findings and recommendations as under:

“5. The major findings of the report are:

- STP Bhattian is efficiently operated and overall performance of STP is good with respect to BOD and COD removal.
- With respect to Balloke STP overall performance of plant is satisfactory. However, it is observed that Total Suspended Solid at Upflow Anerobic Sludge Blanket (UASB) is high and if it can be reduced efficiency of UASB in terms of BOD and COD will improve further.
- STP Jamalpur mainly receives industrial effluent and efficiency of BOD and COD removal is low as compared to the other 02 STPs. Efforts must be made to augment more sewage in the plant to improve the performance of the plant.

6. The major recommendations of the report are:

In order to improve the water quality, following steps desire consideration:

- The operation of STP has to be optimized for reducing pollution load in Budha Nallah.
 - STP at Jamalpur and Bhattian shall operate with designed capacity/load.
 - Capacity of sewage treatment plants must be enhanced to the maximum available load.
- Considering the gap of 467 MLD between sewage generation (778 MLD) and its treatment capacity (311 MLD) in Ludhiana, there is an urgent need to augment the sewage treatment capacity in the city besides optimizing the operation of existing STPs.
- No industry should be permitted to discharge untreated/partially treated effluent either into Budha Nallah or into sewer line which ultimately comes to STPs.”

PPCB filed another affidavit on 3rd April, 2011. As per its monitoring results, various parameters of STPs at villages Bhattian and

Baloke were within the permissible limits, except Total Coliforms (T.Coli). Furthermore, the various parameters of STP at village Jamalpur were within the permissible limits, except Biochemical Oxygen Demand (BOD), Total Coliforms (T.Coli) and Iron (Fe). This affidavit further stated that 816 industries were visited by the PPCB to monitor/ensure the regular operation of ETPs and air pollution control devices. Out of the 274 samples collected, 53 samples involving 48 industries were found to be not achieving the prescribed standards and out of these 48 industries, 33 industries were given notices under Section 33-A of the 1974 Act for their closure. Two industries were refused consent to operate under the 1974 Act and action was to be initiated against 11 industries. One industry had closed down on its own and out of the 11 industries, 6 have upgraded the ETPs and remaining 5 industries even though have also upgraded the ETPs but the same were under stabilization. The PPCB further identified eight large and medium industries engaged in the process of electroplating, which were discharging their effluents into the sewer leading to Budha Nullah. It was stated that the PPCB was following the policy of persuasion and pressure for all the units to switch to Zero Liquid Discharge technology. The industries had installed reverse osmosis (RO) systems followed by multiple effect evaporators (MEE) to achieve Zero Liquid Discharge.

Thus, it is evident that efforts of this Court made in last six years have achieved results which can be said satisfactory. Still to achieve perfection, vigorous efforts are required on the part of all concerned.

Having noticed the facts, it becomes incumbent for us before giving any directions to notice role of the Court in public interest litigation. Emerging socio political demands and perceptions about the role of the Court demands that the downtrodden common man in the street is able

to secure dignified living and to give effect to this, State and its agencies should perform their part and obligation.

It will be apposite here to quote from Restatement of the Law in Public Interest Litigation published by Indian Law Institute, as under:

“The emergence of PIL as an instrument of Court crafted justice dispensation, demonstrates the deep and historic understanding of the onerous nature of the tasks involved in governance and the complexities of the issues to be resolved. Whether it’s the need to protect the right to dignity and humanity of persons lodged in jails, or the need for compassion in ensuring dignity and peace to persons lodged in care and custody institutions or the need to ensure that existing livelihood opportunities are not destroyed without fair alternatives or otherwise, or the requirement of disciplines in dealing with public property or largesses, or the need to ensure that the economic or other developmental activities do not destroy or eat away the precious irreplaceable vitals of nature, the courts have quickly articulated a synthesis between fundamental freedoms and Directive Principles of State Policy.”

In **‘State of Kerala v. Kumari T.P. Roshana and another’** (1979) 2 SCR 974: 1979 AIR 765, Hon’ble the Supreme Court has observed as under:

“The root of the grievance and the fruit of the writ are not individual but collective and the adversarial system ‘adversary system’ makes the Judge a mere umpire, traditionally speaking, the community orientation of the judicial function, so desirable in the Third World remedial jurisprudence, transforms the court’s power into affirmative structuring of redress so as to make it personally meaningful and socially relevant. Frustration of invalidity is part of the judicial duty; fulfillment of legality is complementary.”

In view of the above, if this Court assumes the role of an Umpire it is apparent that due to neglect of public hygiene and community health, by not taking necessary remedial measures for ensuring necessary ecological balance of Ludhiana city and Budha Nullah, the State allowed Budha Nullah to become a source of health hazard and a cause of epidemic. Resultantly, poverty struck population and lowest strata of the society became victims and the sufferers. One of the direct gains or benefits of the present litigation due to taking of suo-motu notice and various proceedings undertaken by this Court is that now the State is aware of the ground realities and conscious of the fact that the symptoms, signals and side-effects of the prevailing conditions of Budha Nullah and Ludhiana city, if not immediately attended to, may cause great human misery and catastrophe.

It is also a well settled legal proposition that the Courts interfere only in Governmental matters in the interest of good governance. Governance and its process has been duly defined, determined and regulated by the Constitution. As per Restatement of the Law in Public Interest Litigation, *'public interest litigation is thus, an effective instrument of law and legal services delivery towards ensuring administration of justice and enforcing constitutional standards and prescriptions in the conduct of the State; particularly as regards the weaker sections of the community.'*

In the perspective of above, we can note with satisfaction that under the aegis of this Court, the P.Ram Committee, NEERI and CPCB have conducted studies and have submitted their reports. They have been duly taken into consideration by the High Powered Committee constituted under the chairmanship of Chief Secretary of the State.

Furthermore, PSHRC has also got a study conducted from eminent experts. The necessary inputs, as to what is required to be done by the State Government in the form of suggestions, are already available. The Committee of Chief Secretary has taken note of the suggestions and necessity of initiating immediate preventive and future remedial measures. We are also aware that it is not a part of our job to run day-to-day affairs of the State. Neither we have the necessary expertise nor specialization, nor are even we aware of the constraints of the State Government and its resource limitation. We have no reason to doubt that the State Government spends each penny wisely and that too, to take care of the immediate concerns of the citizens. Thus, it is not for us to say in what particular manner and as to how the State should tackle the problem which has been caused due to neglect of Budha Nullah. Suffice it to say, various bodies like PSHRC, the P.Ram Committee, NEERI and CPCB have brought to the notice of the State Government as to what is required to be done by it. As stated earlier, the Chief Secretary in various deliberations, meetings and the affidavits filed before us has also agreed that the steps suggested by the above said bodies, require immediate attention of the State for discharging its statutory functions towards community health, safety, ecology and for ensuring a dignified living to the citizens of Ludhiana. Therefore, we shall refrain to give our advisory opinion while exercising jurisdiction in public interest litigation. However, we shall expect that the State Government, Municipal Corporation, PPCB and the District Administration in consultation, in tandem and in harmony with the CPCB and Ministry of Environment Union of India, shall take all active steps for resolving the problem faced by Budha Nullah and Ludhiana city. While doing so, we have no doubt that the

State Government shall take into consideration interest of the villagers which has been projected in CWP No.14744 of 2007 titled as 'Sant Singh Namberdar and others v. State of Punjab and others' by considering their grievance that by stoppage of flow of village drains into Budha Nullah no steps have been taken to take care of the community health of villagers of the villages around Budha Nullah.

Given the varied dimensions and involvement of several processes which form a part of the governance, this Court shall be hesitant to enter into the scrutiny of all details of governance by the various instrumentalities of the State. We are also sanguine that while taking necessary action for the redressal of grievances of all, the State Government shall balance the interests of all concerned including the industry. They will do well to harmonize the competing demands and will perform their bit to synthesize divergence of opinion.

So far as the writ petitions filed by Tajpur Road Dyeing and Industries Associations and Dyeing Effluent Treatment Society i.e. CWP No. 4472 of 2009 and CWP No.8970 of 2009 respectively are concerned, we are of the view that no direction as prayed for can be issued as industry for its profits and gains cannot show its back to responsibilities and demands, towards betterment of the community. The industry cannot turn blind towards its social role. Let industry at first instance install CEPT or achieve zero liquid discharge as prescribed by expert bodies. Thereafter, it may raise claim before the appropriate forum for disbursal of subsidy. As and when the same is done, we are of the view that the State Government shall take a pragmatic view and consider the demands of the industry raised in these two writ petitions, while balancing the legitimate concerns of all classes or sections of people.

To give effect to what has been stated above, we dispose of these five writ petitions by directing that the High Power Committee already constituted under the chairmanship of Chief Secretary concerning Budha Nullah shall continue to meet periodically and shall also monitor actively, protection and preservation of Budha Nullah, its environment and ecology and that of Ludhiana city. To ensure probity and transparency in the affairs of the Committee, we direct it to publish the action taken report quarterly so that in case any citizen or a well meaning group is aggrieved he can again approach this Court for redressal of the grievance. We do hope and expect that in the light of what has been noticed in this judgment and the observations made, the above said Committee duly constituted under the chairmanship of Chief Secretary shall perform its part and achieve desired results.

All pending applications are also disposed of.

**[RANJAN GOGOI]
CHIEF JUSTICE**

**[KANWALJIT SINGH AHLUWALIA]
JUDGE**

November 14, 2011

rps