

Environment:

Towards Community & Market Management

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The Department of Environment is engaged in overall environmental assessment, monitoring, protection and raising awareness among the people of Delhi. The Delhi Pollution Control Committee (DPCC) is responsible for environmental monitoring and implementation of various pollution control acts and rules.

Findings

- The Department of Environment has the responsibility of improving the overall environmental quality in Delhi.
- The Department was allocated Rs 585 lac in the Ninth Five Year Plan period, of which it spent Rs 562.25 lac. During this period the DPCC received Rs 600 lac, and its total expenditure was Rs 798.43 lac.
- Prominent campaigns of the Department include anti-littering, anti-plastic, clean Yamuna, and anti-fire crackers.
- Till December 2002, about 1,161 eco-clubs were set up in government-aided private and public schools as well as 67 Delhi colleges.
- The expenditure of the Public Environmental Awareness Schemes was Rs 325.92 lac, nearly three times the funds allocated during the Ninth Five Year Plan.
- For the scheme 'Pollution Disaster and Hazardous Waste Management' the approved outlay was Rs 50 lac and the expenditure was only around Rs 5 lac.
- For some schemes the entire expenditure for the year has been made in the *last month* of the financial year instead of being spread evenly all through the year. Storming seems to be a common way of functioning for the Department.

Reforms

- The functions of *compliance* and *ambient* monitoring, both of which are currently performed by the DPCC, should be separated to eliminate possible conflict of interest and source of corruption.
- Consent committees' that involve community leaders, non-governmental organisations (NGOs), and other stakeholders should be formed to grant industrial permits. This will make the process transparent and community relevant.
- Centralised monitoring through state or national level agencies is inefficient. They can play a supervisory role but actual monitoring—ambient and compliance—should be decentralised. Consent committees, industrial estate associations including Common Effluent Treatment Plants (CETPs), and NGOs can be involved in decentralised monitoring.
- The polluter must pay: The Common Effluent Treatment Plants must be constructed and maintained by industrial estates and not by taxpayers.
- Use market-based instruments to change incentives and mitigate the tragedy of the commons. Vehicles polluting more should pay at a higher rate of pollution tax.

The Department of Environment is responsible for overall environmental assessment, monitoring, protection and raising awareness among the people of Delhi. Delhi Pollution Control Committee (DPCC) is a statutory agency under the Department of Environment. The Central Pollution Control Board has delegated all its powers and functions to the DPCC since March 1991. The DPCC is responsible for the implementation of the various pollution control acts and rules which already exist and those which are passed by the Department.

The Department has a three-tier organisational structure with a Secretary at the top followed by a Deputy Secretary, Senior Scientific Officers (three) and Scientists (three) followed by an Office Superintendent. The Secretary (Environment) is the Head of the Department and also the ex-officio Chairperson of DPCC. The Deputy Secretary (Environment) supervises all departmental activities and is also the competent authority for providing information under the Right To Information Act. Senior Scientific Officers and Scientists implement the plan schemes of the Department.

The functions of the Department include:

- Composting horticulture waste, and using it as manure for kitchen gardens, nurseries, parks
- Organising tree plantation programmes in schools, residential areas, parks, industrial areas
- Creating awareness among the public and motivating them to adopt life styles supportive of healthy, clean and green environment

The DPCC is entrusted with the enforcement of various environmental acts and rules, and its main functions are:

- Issuance of the 'Consent certificate' to the industries conforming to the areas under green and orange categories

Table 1: Plan Scheme Allocation and Expenditure (Rs in lac)

<i>Name of the Sector/ Scheme</i>	<i>NFYP Approved Outlay</i>	<i>Actual Expenditure During NFYP</i>	<i>TFYP Approved Outlay</i>
Grant in aid to DPCC	600.00	798.43	500.00
Public Environmental Awareness and other related activities	135.00	325.92	800.00
Pollution Disaster and Hazardous Waste Management	50.00	4.57	400.00
Strengthening of the Department	125.00	48.03	600.00
Environment data generation, survey, research projects and other related activities	100.00	35.57	160.00
Eco-clubs in schools and colleges	100.00	134.87	500.00
Assistance to NGOs in the promotion, conservation and preservation of environment	75.00	13.29	100.00
Preparation of Environmental Management Plan			100.00
Installing CETPs in 18 major drains that discharge into the Yamuna (new)			1,800.00

Sources: Government of NCT Delhi. 2003. Annual Plan 2003-2004. Department of Planning
NFYP: Ninth Five Year Plan, TFYP: Tenth Five Year Plan, DPCC: Delhi Pollution Control Committee,
CETP: Common Effluent Treatment Plan

- Issuance of authorisation to hospitals, animal clinics, blood banks
- Prepare manuals, codes and guidelines relating to treatment and disposal of sewage and trade effluents as well as for stack gas cleaning devices, stacks and ducts
- Assess the quality of ambient water and air

Some of the important acts and rules¹ that the DPCC is responsible for enforcing are:

- The Water (Prevention and Control of Pollution) Act, 1974
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- The Environment (Protection) Act, 1986
- The Hazardous Wastes (Management and Handling) Rules, 1989
- The Bio-Medical Waste (Management and Handling) Rules, 1998
- The Recycled Plastics Manufacture and Usage Rules, 1999
- The Municipal Solid Wastes (Management and Handling) Rules, 2000
- The Noise Pollution (Regulation and Control) Rules, 2000
- Delhi Plastic Bag (Manufacture, Sales and Usage) and Non-Biodegradable Garbage (Control) Act, 2000

The Department finances its day-to-day working and schemes through annual grants sanctioned by the Delhi government. Overall, the Department was allocated Rs 585 lac in the Ninth Five Year Plan period, of which it spent Rs 562.25 lac. The approved plan outlay from the government and the expenditure in this sector are shown in Table 1.

Major Plans and Schemes²

The Department of Environment has undertaken many schemes for improving the quality of environment in Delhi. Some of these schemes are:

Public Environmental Awareness and other Activities

The major planned and executed campaign activities under this plan scheme are:

1. Anti-littering and anti-plastic bag campaign
2. Clean Yamuna campaign
3. Anti-fire crackers campaign
4. *Khelo Holi* naturally campaign
5. Prohibition on burning leaves campaign

The campaigns involve participation of Residents' Welfare Associations (RWAs), Market Traders' Associations (MTAs), industrial associations, schools/ colleges, institutions, corporates and non-governmental organisations.

Setting up Eco-clubs in Schools and Colleges

Eco-clubs are environment clubs which are formed in various educational institutes. Till December 2002, about 1,161 eco-clubs were set up in government-aided private and public schools and 67 Delhi colleges. The Department provides a grant of Rs 4,000 to each eco-club undertaking various eco-friendly activities. The major activities carried out by these eco-clubs include tree plantations, clean drives, awareness programmes like quizzes, essay-writing competitions, nature trails.

Hazardous Waste Management

The Department has entrusted Environmental Impact Assessment (EIA) study to the National Productivity Council for the development of three pre-identified potential hazardous waste disposal sites namely

1. Bawana—Relocation site
2. Wazirpur—Industrial area CETP site
3. Gumenhera site

Environment Data Generation Survey Research Projects and other Activities

The objective of the scheme is to conduct need-based environment survey and data generation on quantum of pollutants generated from various sources. Under the scheme, various environmental studies are conducted through NGOs, reputed consultancy organisations, research and academic institutions by providing necessary financial assistance to them.

Assistance to NGOs in Promotion, Conservation and Preservation of Environment

The main purpose of this scheme is to promote and assist various NGOs in the conservation and preservation of environment and pollution control activities.

Major Achievements³

Plantation/ Greening of Delhi

- About 90 lac seedlings have been planted and 12 lac seedlings have been distributed by various greening agencies.
- The forest cover of the NCT Delhi has increased from 26 sq km in 1997 to 88 sq km in 2002 (increase of 62 sq km).

Environment Awareness Campaigns

- More than 1,100 eco-clubs have been established in various schools/ colleges of Delhi, out of which more than 50% are government schools.
- The Delhi Plastic Bag (Manufacture, Sales and Usage) and Non-Biodegradable Garbage (Control) Act, 2000 is being implemented in Delhi since 2 October 2001. The implementation of this Act is undertaken by DPCC.
- Eco-care programs (Environment and Sanitation drive) in the residential areas are conducted with the help of RWAs, eco-club of schools/ colleges, NGOs and educational institutions.
- Yamuna action Plan Phase-II of the Ministry of Environment and Forests, Government of India is coordinated by this Department and some projects have been finalised in association with Delhi Jal Board and Municipal Corporation of Delhi.

Waste Management

The Delhi Plastic Bag (Manufacture, Sales and Usage) and Non Biodegradable Garbage (Control) Act, 2000 and its rules were enacted in order to prohibit the throwing of the garbage in public places and ensure segregation and proper disposal of non-biodegradable garbage. Violation of the provisions of the Act can lead to imprisonment upto one month or a fine upto Rs 5,000 or both.

Table 2: Pattern of Expenditure of the Department of Environment, 2003-04
(Rs)

<i>Head of Account</i>	<i>Budget Allotted during 2002-2003</i>	<i>Expenditure upto February 2003</i>	<i>Expenditure for the month of March 2003</i>	<i>Total Expenditure</i>
Grant in aid to DPCC	1,00,00,000	-	25,00,000	25,00,000
Public Environmental Awareness and other activities	1,50,00,000	85,20,790	32,83,495	1,18,04,285
Setting up of Pollution Disaster and Hazard Management Cell	10,00,000	-	1,60,200	1,60,200
Strengthening of Technical set up in the Department of Environment	20,00,000	7,70,898	1,82,330	9,53,228
Assistance for Abatement of Pollution	30,00,000	21,03,285	2,27,4262	3,30,711
Environment Data Generation, Survey, Research Project and other activities	30,00,000	- 14,9	6,120 1	4,96,120
Eco-clubs in Schools and Colleges	1,00,00,000	51,37,465	11,47,381	62,84,846
Assistance to NGOs in the promotion	20,00,000	-	10,17,000	10,17,000
Preparation of Environment Management Plan	10,00,000	-	-	-
Installing ETPs in 17 drains which discharges into river Yamuna	10,00,000	-	-	-
Environmental Management Capacity Building for Environment Information System Programme (CSS)	5,00,000	-	1,20,409	1,20,409

Source: Government of NCT Delhi. 2003. *Financial Statements of the Department .Department of Environment.*

Conservation of Water

- Rainwater harvesting and research and development projects have been sanctioned and are being implemented through RWAs, academic institutions like Jawaharlal Nehru University and Indian Institute of Technology and by NGOs such as International Trust for Art and Culture Heritage and Association for Environment and Development Research.
- Eco-club schools have also have been sensitised and trained for roof top rainwater harvesting.

Ambient Air Quality

- The Department claims that over the period of 1999-2003, a *distinct* improvement has been recorded in the ambient air quality of Delhi in terms of suspended particulate matter (SPM), sulphur dioxide (SO₂), and oxides of nitrogen (NO) and lead. This was achieved through persistent

efforts of phasing out old commercial vehicles, introduction of unleaded petrol and low-sulphur diesel, extensive use of CNG based vehicles and increase in forest cover.

If we look at the Ninth Five Year Plan (1997–2002) some observations follow. For some schemes the budget allocations are much more than the expenditures and for others the expenditures far exceed the allocations. For example, for the scheme 'Public Environmental Awareness and other activities,' the approved outlay was of Rs 135 lac whereas the expenditure was nearly three times the approved outlay. On the other hand, for the Pollution Disaster and Hazardous Waste Management, the approved outlay was Rs 50 lac and the expenditure was only Rs 4.75 lac, which is not even 10 percent of the approved amount. For strengthening of the Department itself, the approved outlay was of Rs 1.25 lac and the expenditure was less than 50% of this amount. Thus, there is no correlation between the approved amount and the expenditure for many of the schemes.

Another major flaw in the working of the Department is the tendency towards 'storming' in their expenditure pattern. This is clearly visible from Table 2, showing the expenditure pattern of the Department for the year 2002–2003.

It can be seen very clearly from the table that for some sectors/ schemes the entire expenditure has been made in the last month of the financial year instead of being spread all through the year. Another problem with the Department is multiplicity of authority that is inherent in the entire machinery of the Delhi administrative agencies. This problem gets aggravated in light of the fact that the regulatory body of the Department, DPCC is controlled by the Central Pollution Control Board, which is a central government authority.

Reforms

- *Compliance* monitoring and *ambient* monitoring, both of which are currently performed by the DPCC, should be separated to eliminate the possible conflict of interest and source of corruption.
- DPCC should be required to make public the compliance of industries—the outcomes of their regulatory work. In addition, consent decrees, Environmental Impact Assessment Plans (EIAs) and Environmental Management Plans (EMPs) should also be in public domain so that the basis of governmental decisions is open to scrutiny.
- The 'polluter pays' principle should be implemented, which would involve developing a system of monetary non-compliance penalties. The Common Effluent Treatment Plants (CETPs) should be made responsible for compliance within industrial estates.
- With regard to vehicular pollution, this would mean introducing pricing instruments (such as emissions taxes)—the tax for a new vehicle could be a flat lump-sum amount for the first five years of its operation, following which the tax for each consecutive year would depend on the level of emissions of the particular vehicle type. Also, a spot-fine for excess emission could be introduced.
- Formation of consent committees that involve community leaders, NGOs, and other stakeholders to grant industrial permits. This will not only make the process transparent but also community relevant—decisions will be made by people who will be directly affected by new industries and developments.
- The urban environment can be better managed by encouraging private sector participation in the three components of urban solid waste management: household collection and street sweeping, bulk transport of waste, and disposal at the dump site.
- Centralised monitoring through state or national level agencies is inefficient. They can play a supervisory role but actual monitoring—ambient and compliance—should be decentralised. Consent committees, industrial estate associations including CETPs, and NGOs can be involved in decentralised monitoring.

Notes

¹ Full text of acts available at <http://environment.delhigovt.nic.in/>

² Government of NCT Delhi. Planning Department.

³ Government of NCT Delhi. 2002. Appraisal of Ninth Five Year Plan. Department of Planning