

**EVALUATION STUDY REPORT
ON
ECO-CLUBS IN SCHOOLS**



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Evaluation Unit
Planning Department
Government of National Capital Territory of Delhi
2nd Floor, ISBT Building, Kashmere Gate,
Delhi – 110 006

Officers and Staff associated with the Evaluation Study

SN	Name of the Officers/Officials	Designation
	S/Shri/Smt.	
1	A.K.Gopinathan	Joint Director
2	H.P.Sharma	Deputy Director
3	B.S.Bahl	Assistant Director
4	Dr. T.R.Tanwar	Assistant Director
5	L.K.Oberoi	Research Officer
6	Beena Tandon	Research Officer
7	Ashok Kumar	Stat. Assistant
8	J.K.Arora	Stat. Assistant
9	Shyam Babu	Stat. Assistant
10	Raj Kumar	Stat. Investigator
11	Sanir Kumar	Stenographer
12	Ranjan Jha	Stenographer

Evaluation Study Report on Eco-Clubs in Schools

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EVALUATION STUDY REPORT ON ECO-CLUBS IN SCHOOLS

Chapter - 1

I. INTRODUCTION

I.1 Ecology is the study of organisms in reciprocal relationship with their environment. The role of environmental factors on the growth, development, health and welfare of organisms has been well realized since time immemorial. Things like clean air, views and pleasant surroundings are public goods and there is no direct price for these things. However, it is possible to estimate an implicit value for an environmental good or service by means of the price paid for another good, which is marketed (Environment and Pollution by AmbdsHT and AmbagHT 1990).

I.2 There have been many important environmental "Benchmarks" of the past-decade. These include the Brundtland Commissions 1987 report "Common Future" that made the concept of sustainable development fashionable. The idea of sustainable development means "meeting the needs of the present generation without compromising the needs of future generations." Govts. in the developing countries have become increasingly aware that environmental and national resource degradation endangers the potential for long term development.

I.3 Sustainable development is the most important concern in Delhi's current environmental crisis. As per the 2001 census, population of Delhi is 13.8 million and is estimated to rise to 22.42 million by 2021. The major cause anticipated for this rise is the high migration rate due to better employment opportunities in Delhi in comparison to neighbouring states. High density of population, increase in industrial and commercial activities and motor vehicles in Delhi are the root cause of serious environmental problem. There are a lot of Jhuggi-Jhopris lacking civic/ basic amenities like sewage, garbage pits, good hygienic atmosphere etc., which disturb the whole Eco-System. High level of population without adequate green cover not only degrades our soil, water and air, but also affects our lives adversely. The incidence of respiratory diseases is 12 times more than national average and 30% of Delhi's population, especially children, suffers from respiratory disorders. In the above context the subject 'environmental pollution' has acquired considerable importance and it is now finding place in the school, college and university curriculum.

I.4 In Delhi, pollution is the most critical problem facing the public and authorities concerned. According to World Health Organization, Delhi is the 4th most polluted city in the world in terms of Suspended Particulate Matter (SPM). This great city is facing air pollution problems due to transport, industrial growth and domestic sources. Among the various contributing sources of air pollution, vehicular traffic is a major contributor i.e. about 72% and industrial sector is second highest contributor i.e. about 20% followed by domestic sector i.e. about 8%.

AIR POLLUTION BY SECTOR OF ORIGIN (%)

	1970-71	1980-81	1990-91	1999-2000(Estimated)	2000-01(Estimated)
Industrial	56	40	29	25	20
Vehicular	23	42	63	70	72
Domestic	21	18	08	05	08

Sources: White paper on pollution in Delhi , 1997

The deteriorating environment is the result of population pressure and haphazard growth. The increasing pollution is responsible for increasing health problems of human beings. It is estimated that the air pollution is responsible for 40% emergency hospital admission of patients with breathing and heart problems.

I.5 Therefore, Department of Environment, Govt. of NCT of Delhi introduced the scheme of Eco-Clubs, a non-formal proactive scheme of imparting environmental education to school children by involving them in various environmental activities. Department of Environment, Govt. of NCT of Delhi is committed to protect, preserve and conserve the environment of Delhi. The Department is actively engaged in overall environmental assessment, monitoring of activities and creating awareness among the public of Delhi. Environmental awareness is the basic tool of protection of the environment.

1.6 Children's are the future citizens of the country. Therefore, forming Eco-Clubs in schools of Delhi from 1998-99 onwards, envisages involvement of school children in environmental awareness. The concept of the Eco-Clubs aims at imparting environmental education to the school children and mobilizing them to participate in environmental preservation efforts in their schools as well as in and around the localities. Eco-Clubs scheme has been promoted in about 1500 schools which has played a vital role in giving a fillip to the environmental movement in Delhi and this scheme also helps to extend the boundaries and scope of the formal education system, encouraging creativity and empowering students for conservation system.

Chapter-2

2. The Scheme

2.1 Objective of the Scheme

The scheme was initiated with the following objectives:

- i. To motivate the students to keep their surroundings green and clean by undertaking plantation of trees by students.
- ii. To promote ethos of conservation of water by minimizing the use of water.
- iii. To motivate the students to imbibe habits and life style for minimum waste generation, source separation of waste, disposing off the waste to the nearest storage point.
- iv. To compost horticulture waste to use it as a manure for school gardens/nurseries.
- v. To induce the students to create awareness among public and sanitary workers to stop indiscriminate burning of waste, which causes respiratory diseases.
- vi. To sensitize the students to minimize the use of polythene bags- Not to throw them in public places as they choke drains and sewers, being non-biodegradable they cause water logging and provide breeding ground for mosquitoes. Also, to encourage the use of healthier alternatives like jute, cloth and paper bags, etc.
- vii. To organize Tree Plantation programme in schools for which Delhi Forest Department provides saplings free of cost.
- viii. To create awareness on harmful effects of noise and air pollution caused by bursting of crackers on Diwali, which may be manufactured by engaging child labour, exploiting young children.
- ix. To arrange awareness programmes such as quiz, essay, painting competition, rally, nukkad natak, etc. aiming on various environmental issues.
- x. To educate the children about re-use of waste material & preparation of products out of waste during SUPW period.

2.2 Physical and Financial Status of the Scheme

During 1998-99 when the scheme started, 100 Eco-Clubs were functioning in schools of Delhi and within a year i.e. 1999-2000, Eco-Clubs have increased to 1000 schools. The number of Eco-clubs has increased from 1000 to 1500 in 2002-03.

Financial Position of Eco-Clubs

Year/Plan Period 9 th plan (1997-2002)	Approved Outlay	(Rs.in lakh)
		Expenditure
1997-98	100.00	-
1998-99	5.00	-
1999-2000	7.00	4.00
2000-01	20.00	40.00
2001-02	60.00	50.87
2002-03	100.00	-

Up to 1998-99 expenditure was not incurred on Eco-Clubs due to non-implementation.

Chapter - 3

3. The Evaluation Study

3.1 Objectives and Methodology of the Evaluation Study

To evaluate the scheme systematically the following objectives of the study were formulated:

- i To assess the performance of Eco-Clubs in schools.
- ii To know the role of Eco-Clubs incharge/teachers and members to achieve the objective of Eco-Clubs.
- iii. Physical constraints for effective running of the Eco-clubs.
- iv To assess the effectiveness of two slogans namely (i) No to plastic Bags and (ii) No to fire-crackers.
- v Suggestions for improving the implementation of the scheme.

3.2 Methodology of field survey:-

During the period of field survey, Eco-Clubs were running in 1000 schools and there was a proposal to start eco-clubs in 500 more schools during 2001-02. The list of 1000 schools having eco-clubs was furnished by Environment Deptt. Out of these schools the Environment Deptt identified 30 lead schools and this list was also given. Evaluation Team sorted out the remaining 970 schools agency wise i.e. Delhi Govt, Central Govt, NDMC, Public/Aided.

As per direction of Secy(Env.Deptt), all lead schools were selected for survey. Remaining 120 schools were selected through random sampling.

Out of 970 schools/eco-clubs consisting of 602 Delhi Govt, 313 Public/Aided, 29 NDMC and 26 central schools, a sample of 12% schools from each agency were selected at random after arranging the location/place of the schools alphabetically belonging to an agency. Each of the agency i.e. Central, NDMC and Public/Private/Aided were considered as a single unit to arrange the location/place of schools i.e. Dte of Education schools were selected district-wise i.e. 12% Delhi Govt schools were selected from each of the 12 educational districts after arranging them alphabetically as per location/place of the schools (district-wise) for Eco-Clubs activities.

Agency-wise selected sample schools for the survey are as under:-

	<i>Delhi Govt.</i>	<i>Central School</i>	<i>NDMC</i>	<i>Public/Aided</i>	<i>Total</i>
Lead Schools	10	01	01	18	30
Other than lead Schools	73	04	04	39	120

For the survey, three types of questionnaires were designed-questionnaire for incharge of eco-club (Annexure I), questionnaire for members (students) of eco-club (Annexure II) and the questionnaire for general public - lower, middle and higher classes(Annexure III) to know the effect of two slogans 'No to plastic bags' and 'No to fire-crackers' on environmental point of view.

Investigators canvassed all Eco-clubs incharge and five members (students) of each eco-club for questionnaires 1st and 2nd respectively.

House holds from all type of localities including higher class, middle class and lower class/resettlement colonies/Villages were canvassed for questionnaire relating to general public regarding two slogans 'Say no to plastic bags' and 'Say no to Fire Crackers' @ 5 persons (One each from a family) from each locality.

Thus during the survey, 150 incharge/teachers 741 members (students) from 150 schools and 240 persons from different localities were canvassed.

Chapter – 4

4. Findings

4.1 Findings of the survey and analysis of data: -

Field survey was conducted during Nov. & December, 2001. Findings of the survey are as follows: -

Table 1(A): Start of Eco-Clubs and category of teachers Incharge etc.

(No. of schools)

S N	Agency	Total no. of surveyed schools	Year of start of Eco-clubs					Year of present incharge looking after club					Categories of teacher incharge of Eco- club			
			1997	1998	1999	2000	2001	1997	1998	1999	2000	2001	Principal / Vice- Principal	PGT	TGT	Assistant Teacher & Other
1.	Lead Schools	30	4	5	16	3	2	2	5	17	3	3	-	7	22	1
2.	Delhi Govt. Schools	73	1	10	28	30	4	-	5	22	27	18/ NR-1	2	13	53	5
3.	Govt. Aided Schools	6	1	2	3	-	-	1	1	2	2	-	-	2	4	-
4.	Public Schools	33	4	5	17	7	-	4	1	15	8	5	5	10	17	1
5.	Kendriya Vidyalaya	4	-	-	1	2	1	-	-	1	2	1	-	3	1	-
6.	NDMC Schools	4	-	-	4	-	-	-	-	2	-	2	-	-	4	-
	Total	150	10	22	69	42	7	7	12	59	42	29/ NR-1	7	35	101	7

Note:- NR= Not Responded

The plan scheme of 'Eco-club' was started during 1998-99. Out of 150 surveyed schools, in majority of schools (46%) Eco-clubs were started during 1999 followed by 28% of schools during 2000.

39% incharges are looking after the club since the year 1999 while 28% incharges are looking after the club since the year 2000. This shows high proportion of change of incharge of Eco-clubs. In 67% cases, eco-club incharges are TGTs followed by PGTs, Asstt. Teachers and Principal/Vice-Principal.

Table 2(A) :Initiative for opening of Eco-Clubs in schools

(No. of schools)

SN	Agency	Total no. of surveyed schools	The club was opened/started in school at the initiative of	
			The school itself	The Environment Department
1.	Lead Schools	30	22	8
2.	Delhi Govt.	73	8	65
3.	Govt. Aided	6	3	3
4.	Public Schools	33	9	24
5.	Kendriya Vidyalaya	4	-	4
6.	NDMC Schools	4	-	4
	Total	150	42	108

In 108 schools (72%), the eco-clubs in schools were started at the initiative of the Department of Environment i.e the schools were asked to constitute the eco-club, while the remaining schools (28%) took initiative by themselves. In this category the majority are lead schools.

Table-3 (A): Basic Facilities In Schools

(No. of Schools)

SN	Agency	Total no. of surveyed schools	No. of schools having				
			Piped water supply	Electricity	Toilet facility	Audio-Visual equipments	Auditorium/Hall
1.	Lead Schools	30	30	30	30	30	24
2.	Delhi Govt.	73	68	71	73	54	31
3.	Govt. Aided	6	6	6	6	5	3
4.	Public Schools	33	32	33	33	27	22
5.	Kendriya Vidyalaya	4	4	4	4	2	1
6.	NDMC Schools	4	4	4	4	4	3
	Total	150	144	148	150	122	84

The table reveals that

- ❖ 6 schools (4%) - 5 govt. schools and 1 public school, did not have regular piped water supply. The water requirement is being met by Hand pump and Water Tanker of Delhi Jal Board
- ❖ 2 govt. schools (1%) did not have electric supply
- ❖ Toilets facilities are available in all schools
- ❖ 28 schools (19%) did not have audio-visual equipment.
- ❖ 66 schools (44%) did not have auditorium halls.

Table 4(A): Cleanliness in Toilets and School Premises

SN	Agency	Total no. of surveyed schools	Cleanliness in toilets		Cleanliness in schools premises	
			Satisfactory	Not Satisfactory	Satisfactory	Not Satisfactory
1.	Lead Schools	30	30	-	30	-
2.	Delhi Govt. Schools	73	56	17	68	5
3.	Govt. Aided Schools	6	6	-	6	-
4.	Public Schools	33	32	1	32	1
5.	Kendriya Vidyalaya	4	4	-	4	-
6.	NDMC Schools	4	3	1	3	1
	Total	150	131	19	143	7

The above table reveals that:-

- (i) In 19 schools (13%) - 17 Delhi govt. schools, 1 NDMC school and 1 public school cleanliness of toilets were not found satisfactory.
- (ii) In 7 schools (5%), 5 Delhi Govt. Schools, 1 Public School and 1 NDMC School cleanliness in school premises was not satisfactory.

Table 5(A) : Award and Training to Incharge/School

(No. of schools)

SN	Agency	No. of school surveyed	Award/recognition to incharge/school					Training to incharge of Eco-Club			
			Received	Not Received	If received from			Provided	Not Provided	If provided then	
					School Authorities.	Zonal/District /Delhi Govt.	Central Govt./ NGOs			Attended seminar only	Attend 2/3 days Trg. Prgm.
1.	Lead Schools	30	14	16	9	5	-	28	2	23	5
2.	Delhi Govt. Schools	73	11	62	-	9	2	29	44	28	1
3.	Govt. Aided Schools	6	3	3	-	1	2	4	2	4	-
4.	Public Schools	33	17	16	-	4	13	15	18	13	2
5.	Kendriya Vidyalaya	4	-	4	-	-	-	2	2	2	-
6.	NDMC Schools	4	1	3	-	1	-	2	2	2	-
	Total	150	46	104	9	20	17	80	70	72	8

It is noted from analysis of above data that only 31% schools/incharges were provided awards in recognition to their services in the field of environmental concerns/eco-club activities among students. However, major proportion of agency provided award is Delhi Govt. through its Dte. of Education Head Quarter/District/Zonal officer or Environment Department.

The performance of Environment Deptt to provide training to Eco-clubs incharge for active participation of all member of eco-clubs to fulfill the objective of its constitution/formation is not satisfactory since only 53% incharge told that they have attended training and 90% of these were provided the opportunity for training through seminars, only 10% incharges out of those attended training were provided 2/3 days training programme.

Table 6(A): Awareness of incharge of eco-club

SN	Agency	No. of schools surveyed	Whether aware regarding statutory bill on 'ban on plastic bags'		Aware regarding citizen charter		Whether club should be continued in schools	
			Yes	No	Yes	No	Yes	No
1.	Lead Schools	30	28	2	21	9	30	-
2.	Delhi Govt.	73	54	19	10	63	73	-
3.	Govt. Aided	6	4	2	1	5	6	-
4.	Public Schools	33	29	4	7	26	32	1
5.	Kendriya Vidyalaya	4	4	-	4	-	4	-
6.	NDMC Schools	4	4	-	1	3	4	-
7.	Total	150	123	27	44	106	149	1

It is found that 82% and 29% eco-clubs incharge are aware regarding 'statutory bill on ban on plastic bags' and 'citizen's charter' respectively. Almost all incharge are in favour of continuance of eco-clubs in schools, only incharge of school, namely 'Neo-convent A-1 Janakpuri, a public school running up to middle level, is not interested to run eco-club in her school due to paucity of space for plantation etc. Moreover, incharge of this eco-club/school has suggested transferring this club to New -convent Paschim Vihar, a sr. sec, school. This school incharge has also adopted a nearby vacant govt. land for plantation but plants could not survive.

Table 7(A) : Average Time Spent (Hrs. per week) for activities of Eco-Club

(No of schools.)

SN	Agency	No. of schools surveyed	Average time given to activities of Eco-Club by Incharge (Hrs. per week)			
			Less than 1Hr.	1-3Hr.	3-6Hr.	More than 6 Hrs.
1.	Lead Schools	30	-	19	10	1
2.	Delhi Govt. Schools	73	3	45	22	3
3.	Govt. Aided Schools	6	-	5	1	-
4.	Public Schools	33	7	21	5	-
5.	Kendriya Vidyalaya	4	2	1	-	1
6.	NDMC Schools	4	-	3	1	-
7.	Total	150	12	94	39	5

On being asked regarding average time given by incharges to different activities of eco-clubs, 63% of incharge informed that they generally utilise 1-3 hours per week for eco-club activities. However, 3% of the eco-club incharge informed that they give more than 6 hours per week for activities of eco-club. Interestingly, 8% of the incharge said that they provided less than 1 hour per week for eco-club activities.

Table 8(A): Criteria and Attendance of Eco-Club Members

(No. of schools)

SN	Agency	Total no. of surveyed schools	Criteria to become member		Attendance of members in activities	
			As per interest of students	As per decision/selection by teacher	Satisfactory	Not satisfactory
1.	Lead Schools	30	25	5	30	-
2.	Delhi Govt. Schools	73	45	25/NR-3	71	1/NR-1
3.	Govt. Aided Schools	6	5	1	6	-
4.	Public Schools	33	19	14	32	1
5.	Kendriya Vidyalaya	4	3	1	4	-
6.	NDMC Schools	4	2	2	4	-
	Total	150	99	48/ NR-3	147	2/ NR-1

Note:- NR - Not Responded.

In 99 schools (66%) eco-clubs, the criteria to become member of Eco-clubs are the interest of students in environmental activities. In 32% eco-clubs, the criteria to select a member for eco-club is decided by the concerned school. 10th and 12th class students due to devotion for study and primary class students being less mature, are not considered for membership.

Table 9(A): Activities Conducted by Eco-Clubs

(No. of Schools)

SN	Agency	Total no. of surveyed schools	Indoor activities related to			Outdoor activities related to				
			Plantation in school	Essay, Slogan, Ptg./ Drawing. etc.	Debate. Quiz,Natak & Rally etc.	Plan. Outside schools	Essay, slogan, Ptg./Drwg Compet. etc.	Natak, Debates, quiz etc.	Rally	Other Activities
1.	Lead Schools	30	30	28	19	-	-	1	25	5
2.	Delhi Govt. Schools	73	72	66	39	4	1	-	49	23
3.	Govt. Aided Schools	6	6	4	5	-	1	-	4	1
4.	Public Schools	33	29	29	26	3	3	6	16	5
5.	Kendriya Vidyalaya	4	3	3	3	1	3	-	2	-
6.	NDMC Schools	4	4	4	3	-	2	-	3	1
	Total	150	144	134	95	8	10	7	99	35

The above analyses show that:-

(A) Under indoor activities:-

- (i) 144 schools(96%) organized plantation in schools.
- (ii) 134 schools(89%) organized drawing/poster, competition etc.
- (iii) 95 schools(63%) organized Natak/Debet etc.

(B) Under outdoor activities:-

- (i) 99 schools(66%) organized rally to popularize the slogans "No to plastic bags"
- (ii) 35 schools(23%) organized other activities.
- (iii) Only 8 schools(5%) organized plantation outside schools.
- (iv) Only 10 schools(7%) organized slogan/ptg. etc.

The above analysis shows that the eco-clubs arranged more indoor activities compared to outdoor activities

Table 10(A) : Performance of Environmental Audit

(No. of schools)

SN	Agency	Total no. of surveyed schools	Environmental audit activities by group of students	
			Conducted	Not Conducted
1.	Lead Schools	30	1	29
2.	Delhi Govt. Schools	73	3	70
3.	Govt. Aided Schools	6	-	6
4.	Public Schools	33	1	32
5.	Kendriya Vidyalaya	4	2	2
6.	NDMC Schools	4	1	3
	Total	150	8	142

The environmental audit by group of students was not conducted in 95% eco-clubs. However, eco-club manual suggested to conduct environmental audit of nearby office complex/shopping complex/industrial area/residential area by the group of students to make them well aware regarding ecology concerns.

The performance audit conducted in 8 schools by the Eco-club members mainly relate to the physical verification of cleanliness of toilets and general cleanliness in the school premises.

Table 11(A) : Effectiveness of two slogans 'No to Plastic Bags' and 'No to Fire Crackers'

SN	Agency	No. of schools surveyed	(No. of schools)			
			The incharge motivate the members to campaign the slogans			If yes, impact of this campaign
			Yes	No		
1.	Lead Schools	30	30	-	30	-
2.	Delhi Govt.	73	73	-	73	-
3.	Govt. Aided	6	6	-	6	-
4.	Public Schools	33	33	-	33	-
5.	Kendriya Vidyalaya	4	4	-	4	-
6.	NDMC Schools	4	4	-	4	-
	Total	150	150	-	150	

All the incharge of eco-clubs opined that they have motivated the students for two slogans 'Say no to plastic bags' and 'Say no to fire crackers' and they have also observed the impact of these campaigns on positive side i.e. the students learnt the habit of using less of plastic bags and fire crackers by creating awareness among them for adverse effects on environment of using plastic bags and fire crackers. It was found that in most of the surveyed schools children, instead of using plastic bags, used steel boxes jute bags for carrying lunch. The use of these items reduced significantly as a result of these two slogans as evident from table no. 21-A

Table 12(A) : Effectiveness of Eco-Clubs in relation to its objectives

(No. of schools)

SN	Agency	No. of schools surveyed	Eco-Club is effective in fulfilling its objective																
			(i)		(ii)		(iii)		(iv)		(v)		(vi)		(vii)		(viii)		Most effective mean
			Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	
1.	Lead Schools	30	30	-	30	-	30	-	30	-	30	-	30	-	30	-	30	-	P-6, N-18, R-3, Q-3
2.	Delhi Govt. Schools	73	67	6	72	1	69	4	60	13	72	1	70	3	69	4	37	36	N-22, R-18, P-22, E-8, Q-3
3.	Govt. Aided Schools	6	6	-	6	-	6	-	6	-	6	-	6	-	6	-	5	1	N-2, Q-1, P-1, R-2
4.	Public Schools	33	33	-	31	2	30	3	28	5	33	-	33	-	32	1	23	10	Q-8, N-15, P-5, R-5
5.	Kendriya Vidyalaya	4	3	1	4	-	4	-	4	-	4	-	4	-	4	-	4	-	N-3, Q-1,
6.	NDMC Schools	4	4	-	4	-	4	-	4	-	4	-	4	-	4	-	3	1	R-2 N-2
7.	Total	150	143	7	147	3	143	7	132	18	149	1	147	3	145	5	102	48	P-34, N-62 R-30, Q-16, E-8

As per opinion of eco-clubs incharge, the eco-clubs are effective among students for fulfilling its all objectives. Out of 8 objectives, covered during the survey to get the opinion of eco-clubs incharge 95% to 99% incharge opined that objectives (i), (ii), (iii), (v), (vi), (vii) are being fulfilled. However, Remaining two objectives of to create awareness for stopping of burning of wastes and re-use of waste material for preparation of useful products during SUPW period are not being fulfilled in true sense i.e. there are some coordination problems with sanitation incharge of the area to stop burning of waste. Further regarding reuse of waste material it was observed that due to lack of adequate provision of SUPW teachers and their guidance and lack of interest among students for re-use of the waste materials the objectives could not be achieved to the desired level.

41% in charges have opined that nukkad-natak/skit is most popular/effectivity among the students to create awareness for eco-concerns.

Note: P = Painting, N = Natak, R= Rally, E = Essay, Q = Quiz, Y=Yes, N=No.

i)=Keeping the surroundings green & clean by undertaking plantation by students, ii) =Promoting ethos of water conservation by minimizing the use of water, iii)= Imbibe habits and life style for minimum waste generation and disposing off this to the nearest storage point, iv) Creating awareness among public and sanitary workers to stop the burning of waste, v) Tree plantation programmes in schools, vi)= Creating awareness to minimize the use of polythene bags and fire crackers, vii) = Arranging awareness programmes e.g. quiz, essay, painting competitions, rally, nukkad natak, viii)= Re-use of waste material to prepare products during SUPW

Table 13(A) : Performance of Monitoring of Eco-Club activities.

SN	Agency	No. of school surveyed`	(No. of school)	
			Govt. official monitoring the school	
			Yes	No
1.	Lead Schools	30	14	16
2.	Delhi Govt. Schools	73	3	70
3.	Govt. Aided Schools	6	-	6
4.	Public Schools	33	3	30
5.	Kendriya Vidyalaya	4	1	3
6.	NDMC Schools	4	-	4
	Total	150	21	129

Only 14% incharge of eco-clubs informed that there is some sort of monitoring by govt. official and the remaining 86% of Eco-clubs in charge informed that there is no monitoring of Eco-club by the Environment Deptt. so far. Majority of the incharges of Eco-club schools desired to be provided guidance by the Government Department.

Table 14(A): Eco-Club Member (Students) surveyed – Profile

(No. of students.)

SN	Agency	No. of school surveyed	No. of students surveyed	Break-up of surveyed students								
				Sex-wise		Age-wise			Class of study			
				Boys	Girls	6 to 10 yrs	11 to 14 yrs.	Above 14 yrs.	Primary	Middle	Sec.	Sr. Sec.
1.	Lead Schools	30	148	49	99	-	86	62	-	44	65	39
2.	Delhi Govt. Schools	73	360	211	149	-	154	206	-	87	167	106
3.	Govt. Aided Schools	6	30	18	12	-	19	11	-	10	12	8
4.	Public Schools	33	163	58	105	23	75	65	20	51	63	29
5.	Kendriya Vidyalaya	4	20	13	7	-	6	14	-	-	7	13
6.	NDMC Schools	4	20	10	10	-	15	5	-	11	9	-
7.	Total	150	741	359	382	23	355	363	20	203	323	195

741 students from 150 schools belonging to different agencies, Delhi Govt, Govt.Aided, Public schools, Kendriya Vidyalayas, NDMC schools including all 30 lead schools were canvassed.

Overall 52% of the canvassed students were girls. 49% were beyond 14 years of age, 48% were in the age group of 11-14 years. Remaining 3% i.e just 23 students were canvassed from the age group of 6-10 years . Maximum (44%) canvassed students were from the secondary classes followed by middle classes (29%). A few students were also interviewed from primary classes.

Table 15(A): Duration of continuity as members (students) of Eco-Club

(No.of students)

SN	Agency	No. of students surveyed	The students are members of Eco-Club since				
			1997	1998	1999	2000	2001
1.	Lead Schools	148	2	23	42	30	51
2.	Delhi Govt. Schools	360	-	19	116	156	65/NR-4
3.	Govt. Aided Schools	30	5	5	10	7	3
4.	Public Schools	163	2	30	62	36	33
5.	Kendriya Vidyalaya	20	-	-	3	4	13
6.	NDMC Schools	20	-	-	9	6	5
7.	Total	741	9	77	242	239	170/NR-4

Note:- NR – Not Responded

It may be observed that 65% members of eco-club were either from the year 1999 or 2000 i.e. with the continuance of 1 year or 2 year as eco-club members and 23% were members just from some months i.e from the year 2001. Only 12% canvassed members were having the membership of eco-club from 3 or 4 years i.e from the time of start of scheme of eco-club in schools.

Table 16(A): Activation members (students) to fulfill objective of Eco-Club

(No.of students)

S N	Agency	No. of students surveyed	The activities in which the members participated in the activity/objective of Eco-Club																		Most effective to create awareness
			(a)		(b)		(c)		(d)		(e)		(f)		(g)		(h)		(i)		
			Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	
1	Lead Schools	148	92	56	117	31	147	1	146	2	140	8	145	3	148	-	148	-	134	14	P-42,R-36,N-45 E-11,Q-14
2	Delhi Govt. Schools	360	240	120	264	96	354	6	336	24	263	97	353	7	347	12 NR-1	322	38	150	210	P-115, R-98, Q-14, N-98, E-35
3	Govt. Aided Schools	30	20	10	25	5	30	-	30	-	30	-	30	-	29	1	30	-	20	10	P-8,N-7,R-12, Q-2, D-1
4	Public Schools	163	128	35	128	35	159	4	161	2	123	40	157	6	153	10	159	4	120	43	N-72,P-32,R-40 Q-8, E-11
5	Kendriya Vidyalaya	20	11	9	15	5	20	-	20	-	16	4	20	-	20	-	20	-	18	2	N-6, E-2, Q-7, P-5,
6	NDMC Schools	20	17	3	13	7	20	-	20	-	15	5	15	5	18	2	18	2	15	5	P-7, R-9, N-3, E-1
7	Total	741	508	233	562	179	730	11	713	28	587	154	720	21	715	26	697	44	457	284	P-21, R-195, N-231, E-60, Q-45

All objectives of eco-clubs formation in schools are being achieved through member's (students) but proportion of success of different objectives among students vary from one objective to another. More than 70% members in case of each objective are of the opinion that eco-club is effective in fulfilling its objectives. However, only 62% of the members said that the objective of 're-use of waste materials to prepare-products during SUPW period' is being fulfilled, percentage wise this is the lowest achievement level.

Maximum members(31%) out of those interviewed are of the opinion that natak (skit) is most effective to create awareness regarding eco-club activities and objectives, followed by drawing painting competition(28%) and Rally(26%).

Note: P = Painting, N = Natak, R= Rally, E = Essay, Q = Quiz, Y= Yes, N= No, NR= Not Responded

a= Tree Plantation(Outside school), b= Keeping the surroundings green, c= Promote ethos of water conservation by minimizing the use of water, d= Imbibe habits and life style for minimum waste generation and disposing off this to the nearest storage points, e= Creating awareness among public and sanitary workers to stop the burning of waste, f=Tree plantation programmes in schools, g= Creating awareness to minimize the use of polythene bags and fire crackers, h=Arranging awareness programme e.g. quiz, essay, painting competition, rally, nukkad natak, I= Re-use of waste materials to prepare products during SUPW period

Table 17(A) : Contribution of members(students) for Nature Care

(No.of students)

SN	Agency	No. of students surveyed	Members contribution for Nature Care through			
			Watering and manuring the plants etc.	Campaigning for Eco-Concerns	Not to pluck flowers and not to waste water	Not responded
1.	Lead Schools	148	136	--	12	-
2.	Delhi Govt. Schools	360	175	36	11	138
3.	Govt. Aided Schools	30	17	-	1	12
4.	Public Schools	163	80	7	5	71
5.	Kendriya Vidyalaya	20	6	-	1	13
6.	NDMC Schools	20	15	-	-	5
7.	Total	741	429	43	30	239

The above table indicates that out of 741 students interviewed for participation of nature care:-

- (i) 58% participated through watering and manuring the plants
- (ii) 6% participated through campaigning for eco-concerns
- (iii) 4% participated through slogan "not to waste water" and "not to pluck flowers"
- (iv) 32% not responded

Table 18(A) : Environmental Improvement

(No.of students)

SN	Agency	No. of members surveyed	Whether the Eco-Club activities help in environmental improvement in					
			School premises		Residential area of eco-club members		Nearby area of school	
			Yes	No	Yes	No	Yes	No
1.	Lead Schools	148	148	-	141	7	60	88
2.	Delhi Govt. Schools	360	355	5	266	94	108	185/NR-67
3.	Govt. Aided Schools	30	30	-	30	-	18	12
4.	Public Schools	163	152	11	128	35	105	58
5.	Kendriya Vidyalaya	20	20	-	17	3	11	4/NR-5
6.	NDMC Schools	20	20	-	17	1/NR-2	5	3/NR-12
7.	Total	741	725	16	599	140/NR-2	307	350/NR-84

Note :- NR - Not Responded

98% of the canvassed member's observation was that the eco-club activities helped in environmental improvement in the school premises, 41% felt that these activities helped in environmental improvement in the nearby area of school. However, 81% observed the environmental improvement in their residential area due to awareness of members.

It indicates that the eco-club activities are not much effective in the area located nearby school due to lack of coordination among the school and the concerned agencies. However these are effective in the residential areas of eco-club members.

Table 19(A): Awareness for Two Slogans

SN	Agency	No. of members surveyed	Member is aware regarding 'No to Plastic Bags' and 'No to Fire Crackers'		(No. of students)		
			Yes	No	If yes, then campaigning is being made through		
					Participation in seminars debates etc.	Exchange of views with friends etc.	Not responded
1.	Lead Schools	148	146	1/NR-1	7	139	-
2.	Delhi Govt. Schools	360	350	10	11	255	84
3.	Govt. Aided Schools	30	30	-	-	20	10
4.	Public Schools	163	154	9	6	107	41
5.	Kendriya Vidyalaya	20	20	-	-	20	-
6.	NDMC Schools	20	18	2	-	14	4
7.	Total	741	718	22/NR-1	24	555	139

Note :- NR – Not Responded

97% of the canvassed members were well aware regarding Delhi Govt's two slogans 'Say no to plastic bags' and 'Say no to fire crackers'. Surprisingly, 3% student's inspite of member of eco-clubs were not found aware regarding these slogans. Active involvement both by the incharge as well as the member is required.

77% of those, who are aware for these slogans, informed that they campaign for these slogans through exchange of views regarding eco-concerns with friends and family members. 4% of members informed that they participated in seminars and debates. However, 19% members did not respond properly how they campaign for these slogans?

Table 20(A): Effectivity of Slogans

(No.of students)

SN	Agency	No. of members surveyed	Whether, the slogans say 'No to Plastic Bags' and 'No to Fire Crackers' are effective		If no, these slogans may be made more effective by		
			Yes	No	Wide campaigning /publicity through electronic and print media	Arranging seminars, debates, natak etc.	Not Responded
1.	Lead Schools	148	147	1	1	-	-
2.	Delhi Govt. Schools	360	343	17	14	-	3
3.	Govt. Aided Schools	30	30	-	-	-	-
4.	Public Schools	163	158	5	5	-	-
5.	Kendriya Vidyalaya	20	19	1	1	-	-
6.	NDMC Schools	20	20	-	-	-	-
7.	Total	741	717	24	21	-	3

97% of the canvassed members opined that these slogans are effective. Just 24 members (3%) said that these slogans are not effective and almost all of them suggested that these slogans may be made effective by wide campaigning/publicity for 'Not to use plastic bags' and 'Not to use fire crackers' through electronic and print media.

Table 21(A): Use of plastic bags and fire crackers

SN	Agency	No. of members surveyed	Whether the members are using plastic bags, fire crackers		(No.of students) If yes, the volume of use has receded from the start of the Eco-Club	
			Yes	No	Yes	No
1.	Lead Schools	148	29	119	29	-
2.	Delhi Govt. Schools	360	148	212	140	8
3.	Govt. Aided Schools	30	3	27	3	-
4.	Public Schools	163	65	98	29	3/NR-33
5.	Kendriya Vidyalaya	20	13	7	12	1
6.	NDMC Schools	20	9	11	7	2
7.	Total	741	267	474	220	14/NR-33

Note :- NR – Not Responded

36% of the canvassed members said that they are still using plastic bags and fire-crackers. However maximum of them, nearly 82% opined that the volume of use of plastic bags and fire-crackers have been receded since the start of eco-club.

It is significant to note that a major proportion (64%) of canvassed students/members informed that they are not using plastic bags and firecrackers. Obviously it is a very positive impact of constitution of eco-clubs in schools.

Table 22(A): Sharing of views on Eco-Clubs

SN	Agency	No. of members surveyed	Whether member share views regarding Eco-Club activities and environmental concerns with the friends outside school and family members		(No.of students) If yes, attitude of family members/friends	
			Yes	No	Encouraging	Not Encouraging
1.	Lead Schools	148	147	1	137	10
2.	Delhi Govt. Schools	360	335	25	328	7
3.	Govt. Aided Schools	30	30	-	30	-
4.	Public Schools	163	130	33	119	11
5.	Kendriya Vidyalaya	20	20	-	20	-
6.	NDMC Schools	20	20	-	20	-
7.	Total	741	682	59	654	28

It is pertinent to note that 92% of the canvassed members share views regarding eco-club activities and environmental concerns with the friends outside schools & family members and 96% of these members found encouraging attitude of their friends/ family members.

Table 23(A): Environmental Audit and Citizen Charter

(No. of students)

SN	Agency	No. of members surveyed	Whether the members ever done environmental audit		Whether the member is aware regarding Citizen's Charter	
			Yes	No	Yes	No
1.	Lead Schools	148	20	128	6	142
2.	Delhi Govt. Schools	360	-	360	-	360
3.	Govt. Aided Schools	30	-	30	-	30
4.	Public Schools	163	3	160	-	163
5.	Kendriya Vidyalaya	20	-	20	4	16
6.	NDMC Schools	20	-	20	-	20
7.	Total	741	23	718	10	731

It is observed that 97% of canvassed members never done/participated in environmental audit and 99% members were not aware regarding the term citizen's charter. However some students were well aware regarding basic item contained in the citizen's charter of Environment Department but they were not aware that these points/basics are from citizen's charter.

Table 24(A): Continuity as member of Eco-Club

(No. of students)

SN	Agency	No. of members surveyed	Whether the school is supportive in the functioning of Eco-Clubs		Whether the member will like to continue as a member in Eco-Club	
			Yes	No	Yes	No
1.	Lead Schools	148	148	-	148	-
2.	Delhi Govt. Schools	360	360	-	360	-
3.	Govt. Aided Schools	30	30	-	30	-
4.	Public Schools	163	163	-	163	-
5.	Kendriya Vidyalaya	20	20	-	20	-
6.	NDMC Schools	20	20	-	20	-
7.	Total	741	741	-	741	-

A very good indication for environmental concerns is that all canvassed members found their concerned schools supportive in the functioning of eco-clubs and will like to continue as a member in eco-club.

Table 1(B): Availability of Basic Facilities - Delhi govt. Schools

(No. of schools)

SN	District	Total no. of surveyed schools	No. of schools having				
			Piped water supply	Electricity	Toilet facility	Audio-Visual equipments	Auditorium/Hall
1.	East	9	9	9	9	8	5
2.	North-east	5	4	4	5	4	1
3.	North	5	5	5	5	4	2
4.	North-West-A	3	3	3	3	1	1
5.	North-West-B	7	6	7	7	7	3
6.	West-A	8	8	8	8	6	4
7.	West-B	7	7	7	7	5	3
8.	South-West-A	5	5	5	5	5	3
9.	South-West-B	9	8	8	9	7	3
10.	South	8	8	8	8	3	4
11.	New Delhi	1	1	1	1	1	1
12.	Central	6	4	6	6	3	1
13.	Total	73	68	71	73	54	31

One school each in North-East, North-West-B, South-West-B and two schools of central distt. were not having any regular piped water supply from Delhi Jal Board. Similarly, electric connections in one schools each in North-East and South-West B Distt. Were not available.

58% govt. schools (eco-clubs) are not having auditorium/hall and 26% are not having audio-visual equipments. Obviously, auditorium and audio-visual equipments are helpful to make well aware the large gathering of members regarding environmental concerns at a time instead of canvassing in small-groups.

Table 2 (B): Position of cleanliness in toilets-Delhi Govt. Schools

(No. of schools)

SN	Districts	Total no. of surveyed schools	Cleanliness in toilets found		Cleanliness in school premises	
			Satisfactory	Not Satisfactory	Satisfactory	Not Satisfactory
1.	East	9	9	-	9	-
2.	North-East	5	5	-	5	-
3.	North	5	5	-	5	-
4.	North-West-A	3	2	1	3	-
5.	North-West-B	7	5	2	6	1
6.	West-A	8	3	5	7	1
7.	West-B	7	4	3	7	-
8.	South-West-A	5	3	2	5	-
9.	South-West-B	9	8	1	8	1
10.	South	8	5	3	6	2
11.	New Delhi	1	1	-	1	-
12.	Central	6	6	-	6	-
13.	Total	73	56	17	68	5

23% Govt. schools(eco-clubs) were found having unsatisfactory cleanliness in toilets.
Comparatively, schools in district west-A lack in cleanliness in toilets.

Table 3(B) : Activities Conducted by Eco-Clubs- Delhi Govt. Schools

(No. of Schools)

SN	District	Total no. of surveyed schools	Indoor activities related to			Field activities related to				
			Plantation in school	Essay, Slogan, Patg./Drwg. etc.	Debate. Quiz, Natak & Rally etc.	Plan. Outside schools	Essay, slogan, Ptg./Drwg Compet. Etc.	Natak, Debates, quiz etc.	Rally	Other
1.	East	9	9	9	8	2	-	-	8	-
2.	North-East	5	5	4	3	-	-	-	4	1
3.	North	5	5	5	3	-	-	-	4	1
4.	North-West-A	3	3	2	2	-	-	-	1	2
5.	North-West-B	7	7	7	3	1	1	-	5	2
6.	West-A	8	8	6	2	-	-	-	5	3
7.	West-B	7	6	5	3	-	-	-	4	3
8.	South-West-A	5	5	5	5	-	-	-	4	1
9.	South-West-B	9	9	9	2	-	-	-	5	4
10.	South	8	8	8	5	-	-	-	5	3
11.	New Delhi	1	1	1	1	1	-	-	1	-
12.	Central	6	6	5	2	-	-	-	3	3
13.	Total	73	72	66	39	4	1	-	49	23

Almost all schools arranged plantation and 90% schools arranged essays, slogan activity, and painting/ drawing competitions for eco-concerned. In 53% schools debates, quiz and natak were arranged as the topic of environment objective of eco clubs. As far as field activities outside is concern 67% schools organized rally to create awareness among general public.

Table 4 (B): Start of Eco-clubs and designation of Incharge -Delhi Govt. Schools

(No. of schools)

SN	Districts	Total no. of surveyed schools	Year of start of Eco-clubs					Year of present incharge looking after club					Designation of Incharge			
			1997	1998	1999	2000	2001	1997	1998	1999	2000	2001	Principal / V.P.	PGT	TGT	A.T & Others
1.	East	9	-	04	02	02	01	-	03	02	02	01/NR-1	-	01	07	01
2.	North-East	5	-	-	02	02	01	-	-	-	02	03	-	-	05	-
3.	North	5	-	-	02	03	-	-	-	02	02	01	-	-	05	-
4.	North-West-A	3	-	-	02	-	01	-	-	01	01	01	-	02	01	-
5.	North-West-B	7	01	-	03	03	-	-	-	02	03	02	-	02	05	-
6.	West-A	8	-	-	02	06	-	-	-	02	06	-	01	02	04	01 (Lab Asstt)
7.	West-B	7	-	-	03	04	-	-	-	01	03	03	-	03	04	-
8.	South-West-A	5	-	-	03	02	-	-	-	03	02	-	-	-	05	-
9.	South-West-B	9	-	-	04	04	01	-	-	02	02	05	-	-	09	-
10.	South	8	-	05	01	02	-	-	01	03	02	02	01	02	02	03
11.	New Delhi	1	-	01	-	-	-	-	01	-	-	-	-	-	01	-
12.	Central	6	-	-	04	02	-	-	-	04	02	-	-	01	05	-
13.	Total	73	01	10	28	30	04	-	05	22	27	18 NR - 1	02	13	53	05

73% eco-club and incharge are TGTs. 79% of total number of eco-clubs running in Delhi Govt. schools are either started during the year 1999 and 2000 while 73% incharge of eco-clubs are continuing from the year 1998 or 2000.

Note: V.P.- Vice Principal, PGT- Post Graduate Teacher, TGT- Trained Graduate Teacher, A.T.- Assistant Teacher, NR – Not Responded

Table 5 (B): Initiative for opening of Eco-clubs - Delhi Govt. schools.

SN	Districts	Total no. of surveyed schools	(No. of schools)	
			The club was opened/started in school at the initiative of	
			The school itself -	The Environment Department
1.	East	9	-	9
2.	North-East	5	-	5
3.	North	5	1	4
4.	North-West-A	3	-	3
5.	North-West-B	7	-	7
6.	West-A	8	2	6
7.	West-B	7	2	5
8.	South-West-A	5	2	3
9.	South-West-B	9	-	9
10.	South	8	-	8
11.	New Delhi	1	1	-
12.	Central	6	-	6
13.	Total	73	8	65

In 89% cases, the eco-clubs were started in government schools at the initiative of Environment Department i.e the department suggested to start an eco-club and allotted the fund to schools.

Table 6 (B) - Performance of Environmental audit - Delhi Govt. School

(No. of schools)

SN	Districts	Total no. of surveyed schools	Environmental audit activities by group of students	
			Conducted	Not Conducted
1.	East	9	-	9
2.	North-East	5	-	5
3.	North	5	-	5
4.	North-West-A	3	1	2
5.	North-West-B	7	-	7
6.	West-A	8	-	8
7.	West-B	7	-	7
8.	South-West-A	5	1	4
9.	South-West-B	9	-	9
10.	South	8	1	7
11.	New Delhi	1	-	1
12.	Central	6	-	6
13.	Total	73	3	70

Out of 73 schools only 3 government schools managed to conduct environmental audit by group of students i.e most of the Eco-Clubs incharge were not found well aware regarding the concept of environmental audit by group of students so they could not manage it.

Table 7 (B): Criteria and attendance of eco-club members- Delhi Govt. Schools.

(No. of schools)

SN	Districts	Total no. of surveyed schools	Criteria to become member		Attendance of Member	
			As per interest of students	As per decision/selection by teacher	Satisfactory	Not satisfactory
1	East	9	6	3	9	-
2	North-East	5	3	2	5	-
3	North	5	1	4	5	-
4	North-West-A	3	3	-	3	-
5	North-West-B	7	4	3	7	-
6	West-A	8	4	4	8	-
7	West-B	7	3	1/NR-3	6/NR-1	-
8	South-West-A	5	4	1	5	-
9	South-West-B	9	6	3	9	-
10	South	8	4	4	7	1
11	North Delhi	1	1	-	1	-
12	Central	6	6	-	6	-
13	Total	73	45	25/NR-3	71/NR-1	1

Note :- NR – Not Responded

In 62% cases the criteria to provide membership of eco-clubs is interest of students. All incharges except one are satisfied with the attendance of members in different activities of eco-club.

Table 8 (B): Regarding award and training to incharge/school-Delhi Govt. Schools.

(No. of Schools)

S N	Districts	No. of school surveyed	Award/recognition to incharge/school					Training to incharge of Eco-Club			
			Received	Not Received	If received from			Provided	Not Provided	If provided then	
					School Autho- -rities	Zonal / District/ Delhi Govt.	Central Govt./ NGOs			Attended seminar only	Attended 2/3 day Trg. Prgm.
1.	East	9	1	8	-	1	-	3	6	3	-
2.	North- East	5	1	4	-	1	-	1	4	1	-
3.	North	5	-	5	-	-	-	-	5	-	-
4.	North- West-A	3	1	2	-	-	1	1	2	1	-
5.	North- West-B	7	3	4	-	3	-	6	1	6	-
6.	West-A	8	1	7	-	-	1	3	5	3	-
7.	West-B	7	1	6	-	1	-	4	3	3	1
8.	South- West-A	5	-	5	-	-	-	2	3	2	-
9.	South- West-B	9	-	9	-	-	-	4	5	4	-
10.	South	8	2	6	-	2	-	3	5	3	-
11.	New Delhi	1	1	-	-	1	-	1	-	1	-
12.	Central	6	-	6	-	-	-	1	5	1	-
13.	Total	73	11	62	-	9	2	29	44	28	1

Only 15% schools/incharge were provided awards for their excellent contribution in achieving the objectives of eco-clubs, however most of them were provided by Environment/ Education Department of Delhi Govt. As far as training to incharge is concerned, 60% were not provided any type of training.

Note: NGOs – Non-govt. Organizations

**Table 9 (B): Performance of monitoring of eco-club activities
- Delhi Govt. Schools.**

Sl.No	Districts	No. of surveyed schools	(No. of schools)	
			Govt. official monitoring the eco-club	
			Yes	No
1.	East	9	-	9
2.	North-East	5	-	5
3.	North	5	-	5
4.	North-West-A	3	-	3
5.	North-West-B	7	1	6
6.	West-A	8	-	8
7.	West-B	7	-	7
8.	South-West-A	5	1	4
9.	South-West-B	9	-	9
10.	South	8	1	7
11.	New Delhi	1	-	1
12.	Central	6	-	6
13.	Total	73	3	70

Obviously, monitoring activities of eco-club is poor as 96% Eco-club incharge said that there is no monitoring by authorities from Environment/Education Department of Delhi Govt.

Table 10 (B): Regarding 'No to plastic bags' and 'No to fire crackers'- Delhi Govt. School

SN	Agency	No. of schools surveyed	(No. of schools)			
			The incharge motivate the members to campaign the slogans			
			Yes	No	If yes, impact of this campaign	
				Yes	No	
1.	East	9	9	-	9	-
2.	North-East	5	5	-	5	-
3.	North	5	5	-	5	-
4.	North-West-A	3	3	-	3	-
5.	North-West-B	7	7	-	7	-
6.	West-A	8	8	-	8	-
7.	West-B	7	7	-	7	-
8.	South-West-A	5	5	-	5	-
9.	South-West-B	9	9	-	9	-
10.	South	8	8	-	8	-
11.	New Delhi	1	1	-	1	-
12.	Central	6	6	-	6	-
13.	Total	73	73	-	73	-

All incharge motivate the members to campaign the slogans 'No to plastic bags' and 'No to fire-crackers'. As per experience of Eco-Club incharge the campaign of these slogans leave impact on students..

Table 11 (B): Effectivity of Eco-clubs in relation to its objectives- Delhi Govt. Schools.

(No. of schools)

SN	District	No. of schools surveyed	Eco-Club is effective in fulfilling its objective																
			(i)		(ii)		(iii)		(iv)		(v)		(vi)		(vii)		(viii)		Most effective mean
			Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	
1.	East	9	8	1	9	-	9	-	9	-	9	-	9	-	9	-	6	3	P-6, N-2, R-1
2.	North-East	5	5	-	5	-	5	-	5	-	5	-	5	-	5	-	1	4	N-1, P-3, E-1
3.	North	5	5	-	5	-	5	-	4	1	5	-	4	1	5	-	3	2	P-2, N-2, E-1
4.	North-West-A	3	3	-	3	-	3	-	3	-	3	-	3	-	2	1	-	3	P-1, N-2
5.	North-West-B	7	7	-	7	-	7	-	5	2	7	-	7	-	7	-	3	4	N-3, R-3, E-1
6.	West-A	8	7	1	8	-	8	-	5	3	8	-	8	-	7	1	6	2	P-4, R-2, Q-1, E-1
7.	West-B	7	7	-	7	-	6	1	5	2	7	-	7	-	6	1	2	5	N-3, R-3, P-1
8.	South-West-A	5	4	1	5	-	4	1	4	1	5	-	5	-	5	-	3	2	N-2, R-3,
9.	South-West-B	9	9	-	8	1	8	1	6	3	8	1	7	2	8	1	3	6	N-6, P-1, E-1, R-1
10.	South	8	7	1	8	-	7	1	7	1	8	-	8	-	8	-	5	3	P-1, R-3, Q-2, E-2
11.	New Delhi	1	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	R-1
12.	Central	6	4	2	6	-	6	-	6	-	6	-	6	-	6	-	4	2	P-3, R-1, N-1, E-1
13.	Total	73	67	6	72	1	69	4	60	13	72	1	70	3	69	4	37	36	P-22, N-22, R-18, E-8

The eco-clubs are effective in fulfilling its objective in Delhi Govt. schools. However, two objectives, namely, 'to stop the burning of waste' and 're-use of waste material' are not being achieved up to desired level. Out of 73 Eco-Club incharge, 44 mentioned that natak(skit), Painting & drawing competition are most effective to campaign the concerns of environment.

Note: P = Painting, N = Natak, R= Rally, E = Essay, Q = Quiz,, Y-Yes, N - No

i) Keeping the surroundings green & clean by undertaking plantation by students, ii) Promoting ethos of water conservation by minimizing the use of water, iii)= Imbibe habits and life style for minimum waste generation and disposing off this to the nearest storage point, iv) Creating awareness among public and sanitary workers to stop the burning of waste, v) Tree plantation programmes in schools, vi)= Creating awareness to minimize the use of polythene bags and fire crackers, vii) Arranging awareness programmes e.g. quiz, essay, painting competitions, rally, nukkad natak, viii) Re-use of waste material to prepare products during SUPW

Table12 (B): Awareness of In charge- Delhi Govt. Schools.

SN	District	No. of schools surveyed	Whether aware regarding statutory bill on 'ban on plastic bags'		Whether aware regarding citizen charter		(No. of schools) Whether club should be continued in schools	
			Yes	No	Yes	No	Yes	No
1.	East	9	9	-	3	6	9	-
2.	North-East	5	4	1	1	4	5	-
3.	North	5	3	2	-	5	5	-
4.	North-West-A	3	3	-	2	1	3	-
5.	North-West-B	7	3	4	-	7	7	-
6.	West-A	8	8	-	-	8	8	-
7.	West-B	7	7	-	-	7	7	-
8.	South-West-A	5	4	1	2	3	5	-
9.	South-West-B	9	2	7	-	9	9	-
10.	South	8	6	2	2	6	8	-
11.	New Delhi	1	1	-	-	1	1	-
12.	Central	6	4	2	-	6	6	-
13.	Total	73	54	19	10	63	73	-

74% incharges were found aware regarding statutory bill on 'ban on plastic bags' and only 14% were aware regarding Citizen's Charter. As far as continuance of eco club is concerned, all incharges were in favor of eco-clubs in schools.

Table 13 (B): Average time spent (hours per week) for activities of eco-club- Delhi Govt. Schools.

SN	District	No. of schools surveyed	(No. of schools)			
			Average time given to activities of Eco-Club by Incharge (Hrs. per week)			
			Less than 1Hr.	1-3Hr.	3-6Hr.	More than 6 Hrs.
1.	East	9	-	4	4	1
2.	North-East	5	-	4	1	-
3.	North	5	-	4	1	-
4.	North-West-A	3	-	2	1	-
5.	North-West-B	7	1	6	-	-
6.	West-A	8	1	1	5	1
7.	West-B	7	-	4	3	-
8.	South-West-A	5	1	1	2	1
9.	South-West-B	9	-	7	2	-
10.	South	8	-	6	2	-
11.	North Delhi	1	-	1	-	-
12.	Central	6	-	5	1	-
13.	Total	73	3	45	22	3

Maximum (62%) incharges said that they spent on an average of 1 to 3 hours per week for the activities of eco-clubs and 30% spent beyond 3 hours to 6 hours.

Table 14(B) Eco-Club Member (Students) surveyed – Profile (Delhi Govt.)

SN	Agency	No. of school surveyed	No. of students surveyed	(No.of Students) Break-up of surveyed students								
				Sex-wise		Age-wise			Class of study			
				Boys	Girls	6 to 11 yrs	11-14 yrs.	Above 14 yrs.	Primary	Middle	Sec.	Sr. Sec.
1.	East	9	46	25	21	-	29	17	-	15	18	13
2.	North-East	5	25	23	2	-	13	12	-	3	19	3
3.	North	5	25	9	16	-	5	20	-	3	3	19
4.	North-West-A	3	15	15	-	-	8	7	-	6	7	2
5.	North-West-B	7	35	18	17	-	16	19	-	7	13	15
6.	West-A	8	40	25	15	-	17	23	-	16	13	11
7.	West-B	7	28	23	5	-	10	18	-	6	12	10
8.	South-West-A	5	25	18	7	-	4	21	-	4	14	7
9.	South-West-B	9	45	22	23	-	12	33	-	4	32	9
10.	South	8	41	16	25	-	21	20	-	8	26	7
11.	North Delhi	1	5	2	3	-	2	3	-	1	1	3
12.	Central	6	30	15	15	-	17	13	-	14	9	7
13.	Total	73	360	211	149	-	154	206	-	87	167	106

Note: Sec.- Secondary, Sr. Sec. – Senior Secondary

The profile of students canvassed in Govt Schools indicates that 59% are boys and 41% are girls students. Age wise, 57% were in the age of above 14 years and rests were in the age group of 11 to 14 years. 46% students were enrolled in secondary classes, 30% were in senior secondary and 24% were in middle classes.

**Table 15(B): Duration of continuity as members(students)
of Eco-Club- Delhi Govt. Schools**

SN	District	No. of students surveyed	(No of students)				
			The student is member of Eco-Club since				
			1997	1998	1999	2000	2001
1.	East	46	-	11	7	20	4/NR-4
2.	North-East	25	-	-	5	10	10
3.	North	25	-	-	13	12	-
4.	North-West-A	15	-	-	5	4	6
5.	North-West-B	35	-	-	7	22	6
6.	West-A	40	-	-	9	21	10
7.	West-B	28	-	-	8	15	5
8.	South-West-A	25	-	-	14	10	1
9.	South-West-B	45	-	1	23	12	9
10.	South	41	-	5	4	19	13
11.	New Delhi	5	-	2	1	2	-
12.	Central	30	-	-	20	9	1
13.	Total	360	-	19	116	156	65/NR-4

Note:- NR=Not Responded

Out of 360 students (members) canvassed in Delhi Govt. Schools, 76% are members from the year 1999 and 2000 and 18% have taken the membership during the year 2001, only 6% students are members since 1998.

Table 16(B): Activation of members (students) to fulfill objectives of Eco-Club-Delhi Govt. Schools

(No of students)

SN	District	No. of students surveyed	The activities in which the members participated in the activity/objective of Eco-Club																		Most effective to create awareness
			(a)		(b)		(c)		(d)		(e)		(f)		(g)		(h)		(i)		
			Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	
1	East	46	28	18	38	8	46	-	46	-	45	1	46	-	46	-	46	-	30	16	P-27, R-8, N-7, Q-2 E-2
2	North-East	25	15	10	20	5	25	-	25	-	25	-	25	-	25	-	25	-	4	21	P-11, R-11, N-1, Q-1, E-1
3	North	25	13	12	21	4	25	-	23	2	13	12	24	1	22	3	23	2	10	15	P-12, N-5, R-5, E-2, Q-1
4	North-West-A	15	15	-	12	3	15	-	15	-	11	4	15	-	15	-	10	5	-	15	P-9, N-5, Q-1
5	North-West-B	35	28	7	33	2	34	1	35	-	15	20	33	2	32	3	27	8	12	23	P-6, R-15, N-13, Q-1
6	West-A	40	27	13	10	30	40	-	40	-	32	8	38	2	39	1	30	10	26	14	P-12, R-12, N-5, E-10, Q-1
7	West-B	28	26	2	27	1	28	-	28	-	15	13	26	2	26	1/ NR-1	26	2	10	18	P-2, N-13, R-9, E-4
8	South-West-A	25	17	8	20	5	23	2	22	3	18	7	25	-	25	-	24	1	8	17	P-7, R-4, N-14
9	South-West-B	45	31	14	41	4	44	1	40	5	29	16	45	-	41	4	36	9	9	36	E-10, N-14, P-5, R-15, Q-1
10	South	41	30	11	37	4	39	2	27	14	26	15	41	-	41	-	41	-	22	19	P-11, N-16, R-6, E-5, Q-3
11	New Delhi	5	4	1	5	-	5	-	5	-	4	1	5	-	5	-	5	-	5	-	R-1,N-4
12	Central	30	6	24	-	30	30	-	30	-	30	-	30	-	30	-	29	1	14	16	P-13, R-2, N-1, Q-3 E-1/NR-10
13	Total	360	240	120	264	96	354	6	336	24	263	97	353	7	347	12/ NR-1	322	38	150	210	P-115, R-88, N-98, Q-14, E-35, NR-10

The students (members of eco-clubs) in Delhi Govt. Schools have participated in different objectives/activities of clubs but there is less participation in the activity of 're-use of waste material. Maximum (32% of canvassed members) in Delhi Govt. Schools liked the awareness in eco-concerns through painting & drawings competition as most effective.

Note: Y-Yes, N-No, P-Painting, R-Rally, N-Natak, Q Quiz, E-Essay a= Tree Plantation (Outside school), b= Keeping the surroundings green, c= Promote ethos of water conservation by minimizing the use of water, d= Imbibe habits and life style for minimum waste generation and disposing off this to the nearest storage points, e= Creating awareness among public and sanitary workers to stop the burning of waste, f=Tree plantation programmes in schools, g= Creating awareness to minimize the use of polythene bags and fire crackers, h=Arranging awareness programme e.g. quiz, essay, painting competition, rally, nukkad natak, I= Re-use of waste materials to prepare products during SUPW period

Table 17(B): Contribution of members for Nature Care- Delhi Govt. Schools

(No. of students.)

SN	District	No. of students surveyed	Members contribution for nature care for			
			Watering and manuring the plants etc.	Campaigning for Eco-Concerns	No to pluck flowers & not to waste water	Not Responded
1.	East	46	7	9	-	30
2.	North-East	25	9	1	-	15
3.	North	25	15	3	-	7
4.	North-West-A	15	8	1	1	5
5.	North-West-B	35	19	9	4	3
6.	West-A	40	23	2	2	13
7.	West-B	28	21	2	-	5
8.	South-West-A	25	17	4	-	4
9.	South-West-B	45	27	5	4	9
10.	South	41	19	-	-	22
11.	New Delhi	5	5	-	-	-
12.	Central	30	5	-	-	25
13.	Total	360	175	36	11	138

The above table indicates that out of 360 students interviewed for participation of nature care:-

- (i) 49% participated through watering and manuring the plants
- (ii) 10% participated through campaigning for Eco-Concerns
- (iii) 3% participated thorough slogan not to pluck flowers and not to waste water
- (iv) 38% not responded

Table 18 (B) : Position of Environmental Improvement-Delhi Govt. Schools.

SN	District	No. of members surveyed	(No. of students)					
			Whether the Eco-Club activities help in environmental improvement in					
			School premises		Members residential area		School nearby offices, industries etc.	
Yes	No	Yes	No	Yes	No			
1.	East	46	46	-	43	3	1	18/NR-27
2.	North-East	25	25	-	25	-	1	24
3.	North	25	25	-	18	7	5	11/NR-9
4.	North-West-A	15	15	-	15	-	13	2
5.	North-West-B	35	34	1	13	22	4	31
6.	West-A	40	40	-	35	5	14	26
7.	West-B	28	28	-	13	15	4	23/NR-1
8.	South-West-A	25	25	-	22	3	6	17/NA-2
9.	South-West-B	45	41	4	6	39	41	4
10.	South	41	41	-	41		14	24/NR-3
11.	New Delhi	5	5	-	5	-	4	1
12.	Central	30	30	-	30	-	1	4/NR-25
13.	Total	360	355	5	266	94	108	185/NR-67

Note:- NR= Not Responded

99% members said that the eco-club activities help in environmental improvement in school premises and 74% said that these activities also help in their residential area. It may be noted that these activities could not help for environmental improvement at the desired level in the school nearby area.

Table 19(B) Regarding Awareness of Two Slogans-Delhi Govt. Schools

(No. of students)

SN	District	No. of members surveyed	Members is aware regarding 'No to Plastic Bags' and 'No to Fire Crackers'		If yes, then campaigning is being made through		
			Yes	No	Participation in seminars debates etc.	Exchange of views with friends etc.	Not responded
1.	East	46	46	-	-	24	22
2.	North-East	25	25	-	-	16	9
3.	North	25	22	3	1	12	9
4.	North-West-A	15	15	-	-	14	1
5.	North-West-B	35	32	3	-	31	1
6.	West-A	40	40	-	-	39	1
7.	West-B	28	28	-	-	27	1
8.	South-West-A	25	25	-	-	24	1
9.	South-West-B	45	41	4	5	36	-
10.	South	41	41	-	1	25	15
11.	New Delhi	5	5	-	-	4	1
12.	Central	30	30	-	4	3	23
13.	Total	360	350	10	11	255	84

97% of the canvassed members found aware regarding two slogans 'No to Plastic bags' and 'No to fire crackers' and 73% of these aware members campaign the slogans through exchange of views with friends etc.

It is pertinent that 24% of the awared students in Govt. Schools did not respond for these slogans i.e. they were not campaigning/sharing in spite of awareness.

Table 20(B): Regarding Effectivity of Slogans-Delhi Govt. Schools

SN	Agency	No. of members surveyed	Whether, the slogans say 'No to Plastic Bags' and 'No to Fire Crackers' are effective		(No. of Students) If no, these slogans may be made more effective by		
			Yes	No	Wide campaigning/publicity through electronic and print media	Arranging seminars, debates, natak etc.	Others
1.	East	46	46	-	-	-	-
2.	North-East	25	25	-	-	-	-
3.	North	25	22	3	3	-	-
4.	North-West-A	15	15	-	-	-	-
5.	North-West-B	35	29	6	6	-	-
6.	West-A	40	39	1	1	-	-
7.	West-B	28	28	-	-	-	-
8.	South-West-A	25	25	-	-	-	-
9.	South-West-B	45	39	6	3	-	NR-3
10.	South	41	40	1	1	-	-
11.	North Delhi	5	5	-	-	-	-
12.	Central	30	30	-	-	-	-
13.	Total	360	343	17	14	-	NR-3

Note:- NR= Not Responded

95% of canvassed member said that these slogans are effective. These slogans may be made more effective by wide campaigning/ publicity through electronic and print media.

Table 21(B): Regarding use of plastic bags and fire crackers-Delhi Govt. Schools

SN	Agency	No. of members surveyed	(No of Students.)			
			The members are using plastic bags, fire crackers		If yes, the volume of use has receded from the start of the Eco-Club	
			Yes	No	Yes	No
1.	East	46	8	38	7	1
2.	North-East	25	8	17	7	1
3.	North	25	9	16	8	1
4.	North-West-A	15	1	14	1	-
5.	North-West-B	35	26	9	23	3
6.	West-A	40	3	37	3	-
7.	West-B	28	19	9	18	1
8.	South-West-A	25	7	18	6	1
9.	South-West-B	45	32	13	32	-
10.	South	41	32	9	32	-
11.	New Delhi	5	2	3	2	-
12.	Central	30	1	29	1	-
13.	Total	360	148	212	140	8

It may be noted that 41% of the canvassed members are using plastic bags and firecrackers in spite of the awareness in 97% members for two slogans 'No to plastic bags' and 'no to fire crackers'(Table 19-B). However most of the members who are using plastic bags and fire crackers have replied that the volume of use has receded from the start of the eco-club.

Table 22(B): Sharing of views regarding Eco-Clubs-Delhi Govt. Schools

SN	District	No. of members surveyed	Whether member share views regarding Eco-Club activities and environmental concerns with the friends outside school and family members		(No of Students.) If yes, attitude of family members/friends	
			Yes	No	Encouraging	Not Encouraging
1.	East	46	46	-	44	2
2.	North-East	25	25	-	25	-
3.	North	25	21	4	21	-
4.	North-West-A	15	13	2	12	1
5.	North-West-B	35	30	5	30	-
6.	West-A	40	39	1	38	1
7.	West-B	28	26	2	26	-
8.	South-West-A	25	25	-	25	-
9.	South-West-B	45	36	9	33	3
10.	South	41	39	2	39	-
11.	New Delhi	5	5	-	5	-
12.	Central	30	30	-	30	-
13.	Total	360	335	25	328	7

93% of the canvassed members in Delhi Govt. schools share their views regarding eco-club activities & environmental concerns with the friends outside school and family members and 98% of these found the attitude of family members/friends encouraging.

Table 23(B): Regarding Environmental Audit and Citizen Charter-Delhi Govt. Schools

SN	District	No. of members surveyed	(No. of Students)			
			Whether the members ever done environmental audit		Whether the member is aware regarding Citizen's Charter	
			Yes	No	Yes	No
1.	East	46	-	46	-	46
2.	North-East	25	-	25	--	25
3.	North	25	-	25	-	25
4.	North-West-A	15	-	15	-	15
5.	North-West-B	35	-	35	-	35
6.	West-A	40	-	40	-	40
7.	West-B	28	-	28	-	28
8.	South-West-A	25	-	25	-	25
9.	South-West-B	45	-	45	-	45
10.	South	41	-	41	-	41
11.	New Delhi	5	-	5	-	5
12.	Central	30	-	30	-	30
13.	Total	360	-	360	-	360

All 360 canvassed members in Delhi Govt. Schools never participated in environmental audit and were not aware regarding Citizen's Charter. Obviously, this fact reflect very poor performance of eco-club as aspects of both i.e. environmental audit and citizen's charter are included in Eco Club Teachers-Manual circulated by Environment Department to member schools.

Table 24(B): Regarding continuity as member of Eco-Club-Delhi govt. Schools

(No of Students.)

SN	District	No. of members surveyed	Whether the school is supportive in the functioning of Eco-Clubs		Whether the member will like to continue as a member in Eco-Club	
			Yes	No	Yes	No
1.	East	46	46	-	46	-
2.	North-East	25	25	-	25	-
3.	North	25	25	-	25	-
4.	North-West-A	15	15	-	15	-
5.	North-West-B	35	35	-	35	-
6.	West-A	40	40	-	40	-
7.	West-B	28	28	-	28	-
8.	South-West-A	25	25	-	25	-
9.	South-West-B	45	45	-	45	-
10.	South	41	41	-	41	-
11.	New Delhi	5	5	-	5	-
12.	Central	30	30	-	30	-
13.	Total	360	360	-	360	-

All 360 members canvassed in Delhi Govt. Schools said their school are supportive in the functioning of eco-clubs and all are interested to continue as a members in eco-clubs. This fact shows the success and popularity of eco-clubs.

**Table No. 25: The views of persons of lower class society regarding two slogans ' Say no to plastic Bags' and Say No to fire crackers
(Total respondents-75)**

(In Nos.)			
Sl.No.	Item		
1.	Age of informant	Up to 18 years	06
		19 to 30 years	27
		31 to 40 years	19
		Above 40 years	23
2.	Sex	Male	48
		Female	27
3.	Educational Level	Illiterate	22
		Primary	10
		Secondary	37
		Sr. Secondary or Graduation	05
		Higher Qualification	01
4. (a)	Type of bag used for shopping	Plastic-54, Jute-02, cloth-19,	
(b)	If using Plastic bags then disposal	Re-use-09, Sale-03 Throw-38, Others - 04	
5. (a)	Whether aware regarding 'say no to Plastic bags'	Yes-49	No- 26
(b)	If yes impact on society	Yes-16	No-33
6.	Whether aware regarding effect of plastic bag on environment.	Yes-59	No-16
7. (a)	Whether family use fire crackers.	Yes-55	No-20
(b)	If yes, then trend of use	Increasing 03	Reducing-47 Almost same- 05
8.	Whether aware that fire-crackers Spread air and noise pollution	Yes-70	No-05
9. (a)	Whether aware regarding ' Say no to Fire crackers	Yes-44	No-31
(b)	If yes, impact on this slogan on society	Yes-24	No-20
10.(a)	Should we use – Fire Crackers	Yes-12	N0-63
(b)	Plastic Bags	Yes-08	No-67
11.	Whether aware regarding statutory bill ban on plastic bag	Yes-19	No- 56

The views collected from 75 respondents of different families of lower class society indicate that 72% use plastic bags for shopping etc. Out of these persons using plastic bags 70% throw used polythene/plastic bags. When asked about the slogan 'Say no to Plastic bags, about 65% respondents said that they know about this slogan, but 79% respondents knew about the effect of plastic bag on environment. Further, 73% respondents said that firecrackers are used on festival. It is observed that only 25% respondents were aware about statutory ban on plastic bags.

Table No. 26: The views of persons of middle class society regarding two slogans ' Say no to plastic Bags' and Say 'No to fire crackers' (Total respondents-130)

(In Nos.)			
Sl.No.	Item		
1.	Age of informant	Up to 18 years	09
		19 to 30 years	33
		31 to 40 years	39
		Above 40 years	49
2.	Sex	Male	58
		Female	72
3.	Educational Level	Illiterate	12
		Primary	08
		Secondary	69
		Sr. Secondary or Graduation	37
		Higher Qualification	04
4. (a)	Type of bag used for shopping	Plastic-84, Jute-08, cloth-38,	
(b)	If using Plastic bags then disposal	Re-use-08, Sale-Nil, Throw-76,	
5. (a)	Whether aware regarding 'say no to Plastic bags'	Yes-109	No- 21
		(b)	If yes impact on society
6.	Whether aware regarding effect of plastic bag on environment.	Yes-116	No-14
7. (a)	Whether family use fire crackers.	Yes-90	No-40
		(b)	If yes, then trend of use
8.	Whether aware that fire-crackers Spread air and noise pollution	Yes-129	No-01
9. (a)	Whether aware regarding ' Say no to Fire crackers	Yes-99	No-31
		(b)	If yes, impact of this slogan on society
10.(a)	Should we use - Fire Crackers	Yes-23	NO-107
(b)	Plastic Bags	Yes-06	No-124
11.	Whether aware regarding statutory bill ban on plastic bag	Yes-45	No-85

Out of 130 respondents of middle class society shows that 64.62% use plastic bags. The persons who are using plastic bags 90.48% throw these plastic bags. Majority of the middle class society were aware regarding ' say no to plastic bags' and effect of plastic bags on environment. About 70% middle class families were using fire crackers although they know very well that firecrackers are source of air and noise pollution. Majority of the respondents were of the view that firecrackers and plastic bags should not be used. About 65% respondents were not aware about statutory ban on plastic bags.

Table No. 27: The views of persons of Higher/Affluent society regarding two slogans ' Say no to plastic Bags' and Say 'No to fire crackers' (Total respondents-35)

		(In Number)	
Sl.No.	Item		
1.	Age of informant	Up to 18 years	04
		19 to 30 years	06
		31 to 40 years	07
		Above 40 years	18
2.	Sex	Male	16
		Female	19
3.	Educational Level	Illiterate	01
		Up to Primary	02
		Up to secondary	14
		Sr. Secondary or Graduation	13
		Higher Qualification	05
4. (a)	Type of bag used for shopping	Plastic-13, Jute-16, cloth-06,	
(b)	If using Plastic bags then disposal Other- Nil	Re-use-1, Sale-Nil Throw-12,	
5. (a)	Whether aware regarding 'say no to Plastic bags'	Yes-33,	No- 02
		(b) If yes impact on society	Yes-19, No-14
6.	Whether aware regarding effect of plastic bag on environ.	Yes-32,	No-03
7. (a)	Whether family use fire crackers.	Yes-15,	No-20
		(b) If yes, then trend of use	Increasing - NIL Almost Same - 04 Reducing- 11
8.	Whether aware that use of fire-crackers Spread air and noise pollution	Yes-34,	No-01
9. (a)	Whether aware regarding ' Say no to Fire crackers	Yes-23,	No-12
		(b) If yes, impact of this slogan on society	Yes-10, No-13
10.(a)	Should we use - Fire Crackers	Yes-03,	N0-32
		(b) Plastic Bags	Yes-03 No-32
11.	Whether aware regarding statutory on ban plastic bag	Yes-11,	No-24

Out of 35 respondents of higher/affluent society indicate that 45.71% use Jute bags while, 37.14% use plastic bags for shopping etc. Out of these respondents who used plastic bags 92% throw these plastic/polythene bags. Majority of the respondents were aware of the slogan i.e. say no to plastic bags and effect of plastic bags on environment. Interestingly 69% respondents of higher society were unknown regarding ban on plastic bags.

Chapter – 5

5. Summary of Major Findings

Environment Deptt. of Delhi Govt. supplied the list of 1000 schools(including 30 lead schools). The evaluation study team surveyed 150 Schools/Eco-Clubs in 150 Schools, (Lead School 30, Delhi Govt. School 73, Public School 33, Govt. Aided School 6, Kendriya Vidyalaya 4 and NDMC schools 4)

Major findings of the study are based on analysis of the information collected through canvassing schedule from Eco-Clubs incharge, Eco-Clubs members (students) and a few residents representing higher, middle and lower strata of the society.

5.1 Year of start of Eco-Clubs (Tab. 1A)

Eco-Club Scheme started during 1998-99. Out of surveyed 150 Eco-Clubs, 69 (46%) Eco-Clubs were started during 1999 followed by 42 (28%) during 2000. 59(39%) Eco-Clubs incharge are looking after the club since 1999 while 42 (28%) incharge are since 2000. In 101 (67%) schools, Eco-Club incharge are TGTs followed by PGTs and Asstt. Teachers

5.2 Initiative for opening Eco-Clubs in schools (Tab.2A).

In 108 (72%) Eco-Clubs were started at the initiative of the department of Environment while the remaining 42 (28%) schools took initiative by them selves. In this category the majority are lead schools i.e. 22 schools.

5.3 Basic facilities in schools (Tab. 3A)

6 (4%) schools did not have regular piped water supply. 2 (1%) govt. schools did not have electric supply. 28 (19%) schools did not have audio-visual equipments and 66 (44%) schools did not have auditorium hall.

5.4 Position of cleanliness (Table4 A)

In 19 (13%) schools cleanliness in toilets was found unsatisfactory and cleanliness in school premises was not satisfactory in 7 schools including 5 govt. schools.

5.5 Award and training to Eco-Clubs (Tab. 5A)

It is found that 46 (31%) schools/incharge were given awards in recognition to their services in the field of environmental concerns. Delhi Govt. was the major agency, which provided awards through Education Department. Environment Deptt. provided training to 80 (53%) Eco-Clubs incharge.

5.6 Awareness of incharges of Eco-Clubs (Tab. 6A)

It was found that 123 (82%) Eco-Clubs incharge were aware regarding "Statutory bill on ban on plastic bags". But regarding 'Citizen Charter' only

44 (29%) incharges were aware of this concept. Almost all incharges were in favour of continuance of Eco-Clubs in schools. Due to paucity of space a public school of Janakpuri was not interested to continue the Eco-Clubs in school. However, this school incharge adopted a nearby vacant govt. land for plantation but plants could not survive.

5.7 Average time spent for activities of Eco-Club (Tab. 7A)

It was found that 94 (63%) Eco-Clubs incharge generally utilize 1 to 3 hours time per week for Eco-Clubs activities. Only 12 (8%) Eco-Clubs incharge informed that they utilize less than one hour per week for Eco activities.

5.8 Criteria and attendance of Eco-Club members (Tab 8A)

In 99 (66%) schools students become members of Eco-Clubs voluntarily and in 48 (32%) schools members of Eco-Clubs were decided by their Eco-clubs Incharge. Primary school students were not generally considered for Eco-Club membership due to young age and X and XII class students due to Board Examinations.

5.9 Activities conducted by Eco-Clubs(Table 9A)

Under indoor activities,144 (96%) Eco-Clubs organized plantation in schools, 134 (89%) organized poster/drawing competition and 95 (63%) Eco-Club organized Natak/Debate etc. Under outdoor activities 99 (66%) Eco-Clubs organized rally to popularize the slogans 'No to plastic bags and No to fire crackers'. Only 8 (5%) Eco-Clubs organized plantation outside schools including one 'Ryan Public School Vasant Kunj) who adopted a MCD park for plantation.

5.10 Performance of Environmental Audit (Tab. 10A)

Performance audit was conducted only in 8 (5%) Eco-Clubs which mainly related general cleanliness in the school premises.

5.11 Effectiveness of two slogans i.e.'No to plastic bags' and ' No to Fire `Crackers' (Tab. 11A)

All the surveyed Eco-Club schools incharge opined that they have motivated the students for these two slogans and impact on these slogans was also observed to be effective. The students learnt the habit of using less plastic bags and firecrackers.

5.12 Effectiveness of Eco-Clubs in relation to the objectives (Tab.12A)

95% to 99% Eco-Club incharge informed that all objectives of Eco-Clubs were fulfilled except the objective to create awareness for stopping of burning of waste and recycling of waste material for preparation of useful products during SUPW period. Due to coordination problem with sanitation incharge of the areas, stopping burning of waste materials in the open could not be fulfilled.

5.13 Monitoring of Eco-Club activities (Tab. 13A).

Only 21 (14%) Eco-Clubs incharge informed that they were monitoring the activities by themselves while the remaining 129 (86%) Eco-Clubs incharge informed that there is no monitoring of Eco-Clubs by the Environment Deptt. so far Majority of the teachers incharge of Eco-Clubs desired to be provided guidance by the Environment Deptt.

5.14 Eco-Club Members (students)-Profile (Tab. 14A)

Out of 741 canvassed students of 150 schools, 48% were boys and 52% were girl. 49% students were above 14 years of age while 48% students were between 11 to 14 years, remaining 3% students were in age group of 6 to 10 years. Further, 44% students were from the Secondary Classes followed by Middle Classes and Sr. Secondary Classes.

5.15 Duration of continuity of members of Eco-Clubs (Table 15A)

65% students were members from 1999 or 2000 and 23% students were from 2001. Only 12% students were Eco-Club members for 3 to 4 years i.e. from the start of the Eco-Clubs in schools.

5.16 Activation of members to fulfill the objectives of Eco-Clubs Table 16A)

More than 70% Eco-Club members were of the opinion that their clubs are effective in fulfilling the objectives. 62% members told that the objective of reuse of waste materials was fulfilled /achieved during SUPW period. 31% members were of the opinion that Nukkad Natak is the most-effective measure to create awareness in the society followed by painting/drawing (28%) and Rally (26%).

5.17 Contribution of members for Nature Care (Tab. 17A)

68% members contributed for nature care through watering and manuring the plants and by observing the slogans of "do not pluck flowers and do not waste water". Remaining 32% did not responded to the question, as they were not aware regarding the term 'Nature Care'.

5.18 Environmental Improvement (Tab. 18A)

98% of the interviewed students/members observed that Eco-Clubs activities helped in environmental improvement in the school premises. 41% students felt that Eco-Clubs activities helped in environmental improvement in the nearby area of schools, 81% students feel that these activities helped in environmental improvement in their residential areas.

5.19 Awareness of two slogans (Tab. 19A)

97% members responded that they are familiar with the two slogans i.e. "No to Plastic Bags" and "No to Fire Crackers". Out of 97% students who were aware about these slogans, 77% students informed that they campaign for these slogans through exchange of views with their friends

and family members. 4% informed that they participated in seminars and debates. 19% students did not respond properly about campaigning.

5.20 Use of Plastic Bags and Fire Crackers (Tab. 21A)

64% members of Eco-Club said that they are not using plastic bags and firecrackers. 82% students opined that the volume of use of plastic bags and fire crackers receded since the start of Eco-Club.

5.21 Sharing of views on Eco-Clubs (Tab. 22A)

92% members of Eco-Club said that they share their views on Eco-Club activities and environmental concerns with the friends and family members out side the school. Out of 682 students 654 students (96%) informed that the attitude of friends and family members regarding Eco-Club activities was encouraging.

5.22 Environmental audit and citizen Charter (Tab. 23A)

97% Eco-Club members never participated in environmental audit and 99% members were not aware about the term 'Citizen Charter'.

5.23 Continuity as members of Eco-Club (Tab. 24A)

All the canvassed students (741) found that they want to remain the Eco-Clubs members. They also informed that their school was supportive regarding Eco-Club activities.

5.24 Lower Class(Total respondents 75) (Tab. 25)

72% of the lower society respondents use plastic bags for shopping etc. Out of these 70% respondents throw used polythene/plastic bags in the open area. 65% respondents knew about the slogan ban on plastic bags. 73% used firecrackers during festival seasons.75% respondents were not aware of the statutory bill- 'Ban on plastic bags'.

5.25 Middle Class(Total respondents 130) (Tab. 26)

65% of the respondent of the middle class use plastic bags for shopping etc. and 90% of the user throw the used plastic bags in the open area.

Majority of the middle class society were aware of the slogan "Say no to plastic bag". Approx. 70% middle class families were using firecrackers. About 65% respondents were not aware about statutory bill ban on plastic bags.

5.26 Higher/Affluent Society Members (Total respondents 35) (Tab. 27)

37% of higher society respondents were using plastic bags for shopping etc. Out of these respondents who were using plastic bags, 92% respondents throw these plastic bags. Majority of the respondents were aware of the slogan ' say no to plastic bags'. 69% responders of higher society were unknown regarding statutory bill ban on plastic bags.

5.3 Suggestions of Eco-clubs incharge:-

1. Environmental improvement programme should be included as a part of school curriculum/Syllabus.
2. Inter Eco-clubs school competition and stage shows should be arranged to popularize the scheme.
3. The financial assistance to Eco-clubs may be enhanced suitably.
4. Environment Department should issue certificates for excellent performance to Eco-clubs/members.
5. Guide-lines and pamphlets /books on environmental issues should be distributed in all the Eco-clubs in bilingual (Hindi & English)
6. Forest department/Environment department should distribute trees in school premises.

Chapter – 6

6. Recommendations:

- 6.1 Intensive publicity should be undertaken by the Environment Department through audio-visual and print media to create awareness about environmental improvement activities amongst students and the public. The study reveals that the awareness about 'Citizen Charters' and Slogans i.e. 'No to plastic bags' and 'No to firecrackers' are not to the desired extent among the students and the public.
- 6.2 In some schools, garbage/ waste material was burnt in the open. It is suggested that this garbage may be collected regularly by local bodies concerned from the schools..
- 6.3 Waste papers are found in many schools. These papers should be stored in schools and collected from the schools by Recycling Agency for further use.
- 6.4 Environment Department should not constitute Eco-Club in those schools where adequate land is not available for plantation. School heads should motivate the students and teachers for contribution towards environmental improvement by organizing different types of competitions in schools regarding environmental issues.
- 6.5 Early disposal of waste material such as broken furniture etc. particularly in govt. schools should be ensured.
- 6.6 For awareness among the students regarding environmental improvement, special programme on environmental issues may be arranged by involving all students and teachers.
- 6.7 Some NGOs/industrial houses may be involved in the eco clubs activities. These agencies can help in Eco-Club activities in cash and/or in kind like free supply of plants, trees, seeds and equipments. For example Pollution Control Department may be contacted to give equipment kit for eco-club activities.
- 6.8 In the morning assembly of the students the findings/activities of eco-clubs should be shared to motivate the students for the cause of eco-concerns.

- 6.9 Water, harvesting scheme may be introduced to recharge/increase the ground water where it is feasible. The eco-club incharge should submit the feasibility of water-harvesting in their schools to the Environment Deptt.,GNCTD. The Environment Deptt. should explore the possibility of special assistance to schools etc. for water harvesting.
- 6.10 Some regular field visits to the areas in and around the schools should be organized so that students can be aware about environment issues. These areas may be water supply plant, landfill areas, compost plant etc.
- 6.11 Every year Department of Environment should organize an annual presentation in which clubs may present their activities/difficulties and suggestions for future plan.
- 6.12 It is suggested that Department of Environment should physically visit eco-club once in a year and interact with teachers/eco-club in charge and students as a follow-up to ensure the fulfillment of objectives of Eco-Club.
- 6.13 A calender of activities/programmes under Eco-Club should be formulated right from beginning the academic session and progress of the activities should be reviewed/monitored by the principal/eco-club incharge.
- 6.14 Nomination of a leader/monitor from the eco club members to coordinate the eco club activities.
- 6.15 Department of Environment should specify the programmes/ activities/items on which funds should be utilized by the eco clubs at the time of release of funds. Funds for the next year should be released only on receipt of utilization certificate on the specified activities.

6.16 Conclusion

The scheme is found to be useful in promoting environmental improvement in Delhi. Hence, it is suggested that more schools with proper infrastructure may be brought under the purview of the scheme. Parent Teacher Association (PTAs), NGOs and Residential Welfare Associations may also be got involved in the implementation and monitoring of the scheme. Internal monitoring of activities by the school incharge should be made a part of the scheme as per the target. A calendar of activities should be formulated right from the Academic Session and progress should be reviewed and monitored accordingly and necessary remedial measures may be taken in time.

**Evaluation Study of Eco-Clubs
Questionnaire for Teacher In-charge of Eco-Club**

Date of Survey:-----

1. Name of School with address and Tel.

:_____

Number

:_____

2. Type of School

:Delhi Govt./Govt.
aided/Central
Govt./NDMC/Public
School

3.

i) Facilities in the School

:_____

Whether the school has

a) Water supply

: Yes/No

b) Electricity

: Yes/No

c) Toilet facility

: Yes/No

d) Audio-Visual equipment

: Yes/No

e) Auditorium/Hall

: Yes/No

ii)

a) Cleanliness in toilets

:Satisfactory/Not Satisfactory

b) General cleanliness in school premises including
class rooms

: Satisfactory/Not Satisfactory

4. Name of activities of Eco-Club

:_____

a) Indoor

:_____

b) Field _____

5. Name of In-charge of Eco-Club and Designation
:_____

6.
a) Date of Start of Club in School

: _____

b) It was started in school :at your own initiative/at
the initiative of Deptt. of
Environment

7. Date since when this In-Charge is looking after
the Club

: _____

8a). Financial Details Regarding the scheme :

Year	Amount Sanctioned(In Rs.)	Expenditure Incurred(In Rs.)	Major Activities on which expenditure incurred
1997-98			
1998-99			
1999-2000			
2000-2001			

b) Do you spend any money over and above the grant given by Delhi Govt. : Yes/No

c)i) If yes, source to meet out the exceeding amount

: _____

ii) How much total funds/sanction required for a yr

: _____

9.
a) Whether Environmental performance audit by group of students is being made under the programme

: Yes/No

b) If yes, whether the audit reports are available in record

: Yes/No

c) Whether the findings in Environmental Audit are taken in account for improvement of environment

: Yes/No

10.

a) How many members are there in Eco Club

: _____

- b) How the services of members are being utilized for the programme of club
:_____
- c) What is the criteria to become a member of Eco-Club
:_____
- d) Attendance of members in Eco-club activities/meetings : Satisfactory/ Not Satisfactory
11. How much time do you spend in the activities of Eco-Clubs in a week(in hours)
:_____
12. In your opinion, whether the Eco-Club is effective
- a) among students in fulfilling its objective of :
- i) keeping the surroundings green & clean by undertaking plantation by students :
Yes/No
- ii) Promoting ethos of water conservation by minimizing the use of water` :
Yes/No
- iii) Imbibe habits and life style for minimum waste generation and disposing off this to the nearest storage point :
Yes/No
- iv) Creating awareness among public and sanitary workers to stop the burning of waste :
Yes/No
- v) Tree plantation programmes in schools :
Yes/No
- vi) Creating awareness to minimize the use of polythene bags and fire crackers :
Yes/No
- vii) Arranging awareness programmes e.g. quiz, essay, painting competitions, rally, nukkad

- natak :
Yes/No
- In your opinion, which mean is most Effective to create awareness :
: _____
- viii) Re-use of waste material to prepare Products during SUPW Period :
Yes/No
- b) If no, suggestions for improvement :
: _____
: _____
- c) Difficulties in running the club :
: _____
: _____
13. Have you received any award/recognition? :
Yes/No
If yes, give details
: _____
14. Have you received any training ? : Yes/No
If yes, give details
: _____
- 15 Has any Govt. official monitoring the programme so far ? : Yes/No
16. a) Whether, you motivate the members of Eco-Club to campaign the slogans ` Say no to plastic bags, yes to Jute/Cloth/Paper bags' and `Say no to fire crackers' : Yes/No
- b) If yes, impact of this campaign : Yes/No
- c) If no, what measures should be adopted for :
: _____
`No to Use Plastic bags and fire crackers'
: _____
17. Do you know about statutory bill regarding

- ban on plastic bags :
Yes/No
18. Whether you are aware regarding Citizen's Charter :
Yes/No
19. Should the club continued in schools :
Yes/No
- 20.. Suggestions to enhance performance of Eco-Clubs

21. Observation of Investigating Officer

: _____

Signature

Evaluation Study of Eco-Clubs
Questionnaire for Eco-Club Members

Date of Survey:-----

1. Name of School/Eco-Club :-----

2. Member's Profile

a) Name :-----

b) Sex : Male/Female

c) Age :-----Years

d) Class of Study in school :-----

3) Since when you have been a member of this club :-----

4. Name the activities of Eco-Club in which you have participated during 1999-2000 and 2000-01 -----

a) Tree Plantation(Outside School) Yes/No

b) Keeping the surroundings green : Yes/No

&Clean by undertaking plantation

by students :

c) Promote ethos of water conservation

by minimizing the use of water : Yes/No

d) Imbibe habits and life style for

minimum waste generation and

disposing off this to the nearest storage

points : Yes/No

e) Creating awareness among public and sanitary workers to stop the burning of waste : Yes/No

f) Tree plantation programmes in schools Yes/No

g) Creating awareness to minimize the use of polythene bags and fire crackers Yes/No

h) Arranging awareness programme e.g. quiz, essay, painting competitions, rally, nukkad natak Yes/No

In your opinion, which is most effective to create awareness :-----

i) Re-use of waste materials to prepare Products during SUPW period Yes/No

j) Nature Care :-----

5. In your opinion, whether Eco-Club activities help in Environmental improvement

a) In School premises : Yes/No

b) In your area : Yes/No

c) School nearby offices, industries, shopping complexes etc.

6. a) Whether you are aware regarding Two slogans ' No to Plastic bags' and 'No to fire crackers'

b) If yes, how you are campaigning for these slogans :-----

c) Whether these slogans are effective among students and

d) general society : Yes/No
If no, which type of approach :-----

should be made to make :-----

these slogans more effective in :-----

society

e.
i) Are you using plastic bags/fire : Yes/No
Crackers

ii) If yes, whether volume of use : Yes/No
has receded or not from the
start of Eco-Club

7.
a) Whether you share your : Yes/No
views/activities regarding
activities of Eco-Clubs and
environmental
concerns with your friends
outside school and family
members

b) If yes, attitude of your family : Encouraging/Not
members/friends
encouraging

8.
a) Have you ever done environ- : Yes/No
mental audit of the school/
home/nearby/offices/
industries/shopping complexes:

b) If yes, give the details :-----

9. Is your school supportive : Yes/No
in the functioning of Eco-
Clubs ?

10. Would you like to continue as a member in the Eco-Clubs? : Yes/No
11. Constraints/Problems being :-----

faced in the Eco-Clubs :-----

12. Are you aware regarding citizen's charter for environmental issues : Yes/No

13. Suggestions regarding improvement in performance of Eco-Clubs: :-----

14. Observations of Investigating officer:-----

Signature

Evaluation Study of Campaigns 'Say No to Plastic bags, Yes to Jute/Cloth/Paper Bags' and 'Say No to Fire Crackers'

Questionnaire For General Mass of the Society

Date of Survey-----

1. Informant's Profile

- a) Name and address :-----
:-----
- b) Age :-----Years
- c) Sex : Male/Female
- d) Educational Level :-----

--

- 2. The locality : Affluent /Middle /Lower Class/
Slum - JJ Cluster

3.

- a) To carry the consumable items
type of bag used for shopping: Plastic/Jute/Cloth/Paper
- b) If you use plastic bags then how you
dispose off these :-----

4.

- a) Are you aware regarding the camp-
aign of Delhi Govt. 'Say no to Plastic
bags' : Yes/No
- b) If yes, its impact on the society : Noticeable/Not Noticeable

- 5. Do you know the effect of plastic bags
on environment : Yes/No

6.

- a) Do your family use fire crackers on

- the celebration of any occasion : Yes/No
- b) If yes, then the quantum of use of fire crackers after the start of Eco-Club is : increasing /reducing /almost same
7. Do you know fire crackers spread air and noise pollution : yes/No
- 8.
- a) Do you know regarding Delhi Govt. Campaign 'Say No to Fire Crackers' : Yes/No
- b) If yes, its impact on the society : Noticeable/Not Noticeable
9. In your opinion, should we use
- a) fire crackers : Yes/No
- b) Plastic Bags : Yes/No
10. Are you aware regarding statutory bill regarding ban on plastic bags : Yes/No
11. Your suggestion to make these two Slogans more effective and result oriented :-----

12. Observation of Investigating Officer :-----

Signature