

Community Led Environment Action Network

CLEAN-India

- An Environment Assessment, Awareness, Advocacy & Action Programme



FINAL REPORT

Oct' 2002 – Oct' 2007

Submitted to
EUROPEAN UNION

Submitted by



ENVIRONMENT SYSTEM BRANCH

Development Alternatives

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The world is becoming increasingly conscious of the environment as it affects every aspect of human existence. A reasonable standard of quality of life is a right of every citizen of the world. The concept of sustainable cities is closely interconnected with environment and economy as it concerns the very survival of humankind which in turn contributes to a healthy nation. Clean environment and economic growth are complimentary to each other and result in vibrant communities which see themselves as **stakeholders** in all aspects of daily life. An attitude of care for the environment, controlling pollution, following housing norms, honest effort and meaningful utilization of economic resources will have a positive impact for the sustainable growth in the urban sector. This holistic approach of involving all stakeholders, eliciting their cooperation and commitment in joining hands, learning together, assessing their requirements and taking positive action on environment mitigation resulted in catalyzing the CLEAN-India programme.

CLEAN-India programme started with basic assumption that networking and sharing of information is a prerequisite for its success. Development Alternatives (DA) had been working with like-minded organizations that showed commitment in their mission to improve the environment. It was sharing information with UNICEF and WHO on quality of water, Central Pollution Control Board on air quality, tree plantation with the concerned ministry in the government, solid waste management with the municipal authorities, NGOs working in the field of environment education, etc. It was also in liaison with international development agencies and providing valuable inputs in conferences, seminars and workshops. Even the corporate sector was being encouraged to join hands as part of their corporate social responsibility.

Recognizing the deep and growing threats to life and human well-being that result from the deteriorating environmental condition of urban India, DA initiated the Delhi Environment Action Network (DEAN) programme with five schools in 1996. Today, perhaps because of the unusual manner in which it brings together science education, practical action and social commitment, DEAN grew beyond its maximum design size to about 40 schools in Delhi. Encouraged by the Delhi experience various NGOs initiated similar operations across the country, including Shillong, Faizabad, Kumaon, Ladakh, Lalitpur and Sagar. As NGOs started joining hands, links were created with Kendriya Vidyalayas and Jawahar Navodaya Vidyalayas who expressed desire to be incorporated in a country-wide programme. This resulted in the setting up of a nation wide

network called **Community Led Environment Action Network** (CLEAN-India). A programme was conceptualized which would provide an excellent and highly cost-effective opportunity for corporations, government agencies and NGOs to take direct part in the sustainable development of the country, and to disseminate their messages to a wide range of citizens with demonstrated concern for the future – the Leaders of Tomorrow.

CLEAN-India Programme started on 15 October 2002 with the generous support of the European Commission as part of one of their priority themes **Environment in Developing Countries**. With partnership of 28 like-minded NGOs a network was established and the programme was launched with a systematic approach of assessing the environment, creating awareness, taking appropriate action and advocacy for making policy changes by the government. Important environmental issues were taken up like water quality monitoring, its conservation and purification, air quality monitoring, solid waste management including vermi-composting, tree plantation including setting up of herb corners in schools and medicinal plants in parks, waste paper recycling, campaigns against environment degrading activities, etc. Emphasis was given towards the upliftment of weaker sections of the society and by providing them with employment opportunities by setting up enterprises primarily in the field of waste management.

CLEAN-India has received widespread publicity and outreach through its website and resource materials being published by various centres. Many environmental projects have been spawned by its catalytic effect, like State of Environment Reporting by states, State of Environment Atlas of India, fluoride mitigation project in effected states of Rajasthan and Andhra Pradesh, air pollution mitigation in stone crushing industry, Earth Charter for Children, water conservation in the rural sector, massive tree plantation during the monsoon season, etc. The CLEAN-India website has won the Manthan Award for best e-content on environment. CLEAN-India has also been represented in the electronic media through radio and television programmes. Partner school children represented the country and the organization in International Children's Conference on Environment (ICCE) and Global Environment Youth Convention (GEYC).

Running efficiently the CLEAN-India Programme was a gigantic task and ensuring sustainability of community actions initiated across the country was not easy. Changing of mindsets and attitudes required constant interactions through orientation workshops, continuous motivation and awareness, highlighted by emphasizing best practices for implementation. Partners have understood that to ensure sustainability there is no alternative but local initiatives, contribution of the beneficiaries and self help.

Successful implementation of the programme at school and community level was very effective in enhancing visibility, leading to their adoption and propagation by other stakeholders. Learnings from each other brought in vigour, design of new concepts, tools and newer ideas. DA is confident that CLEAN-India will be sustainable and will be taken by other states and NGOs and will spread as a movement across the length and breadth of the country.

Development Alternatives launched the CLEAN-India (Community Led Environment Action Network) Programme with a vision of developing cleaner environment for our towns and cities. This nation-wide programme on environmental assessment, awareness, advocacy and action is spearheaded by school students (the future citizens) at the fore.

The underlying realisation is that “each one of us is responsible for the current state of the environment in the country, and we cannot wait for someone else to solve it.”

2.1 Aim of the programme

The CLEAN-India Programme aims to mobilise community responsibility for environmental assessment and improvement in all major towns and cities of India through a network of schools and NGOs linked with government, business, academic and other institutions.

2.2 Objectives – the 4 As

The prime objectives of the CLEAN-India programme are to:

- systematically **assess** and document the environmental quality of all major towns and cities in India.
- generate **awareness** among citizens, decision makers and other stakeholders in society on the causes of environmental issues and possible ameliorative action.
- establish vibrant network of schools, welfare associations, NGOs, media, corporate sector, scientific institutions, district administrations and local Government for **advocacy** and policy change.
- mobilise communities to undertake environmental improvement **actions** at the local level.

2.3 Achievements against Objectives

♣ OBJECTIVE: ENVIRONMENTAL ASSESSMENT

*To systematically **assess** and document the environmental quality of all major towns and cities in India.*

The programme envisaged setting up of a process with schools that would keep track of the environment quality every season.

Achievements

The environment quality was assessed by testing quality of water and air, conducting energy audits, solid waste generation surveys, bio-mapping to study the trees and bird species around and checking for food adulteration.

1. *Water Quality Monitoring*

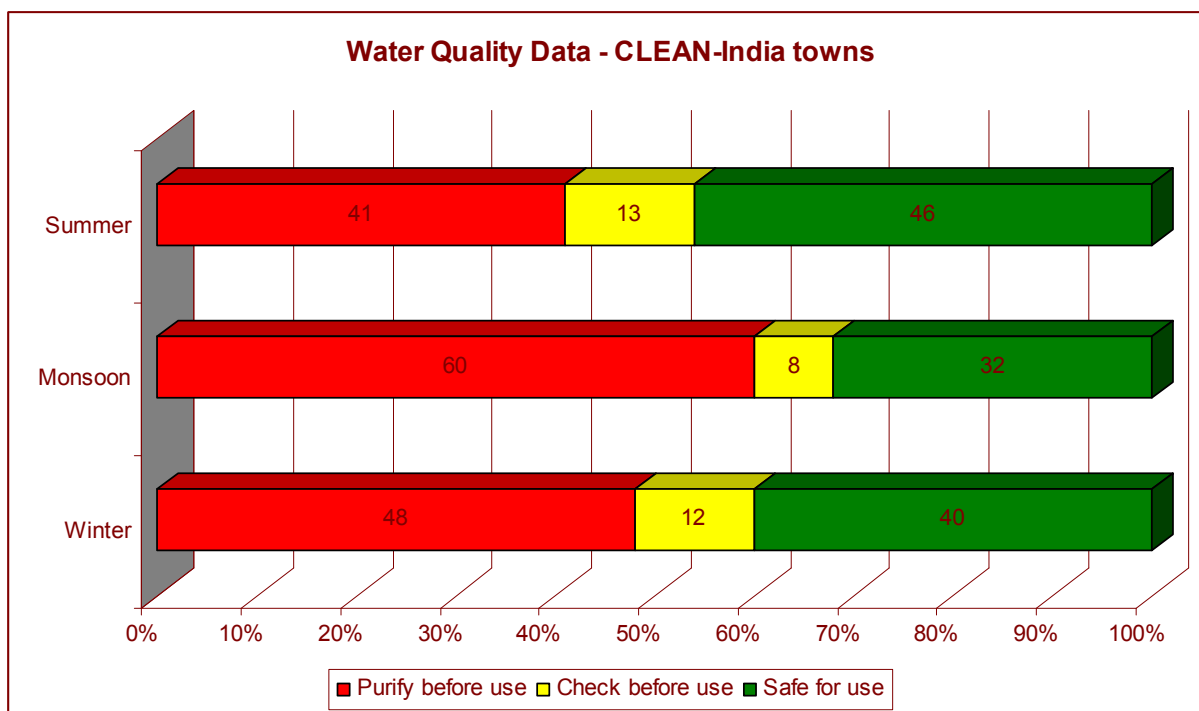
Intensive monitoring of water quality was carried out by CLEAN-India students across the country. Ground and surface water samples were assessed for various parameters like fluoride, turbidity, hardness, nitrate, coliform bacteria and ammonia. The testing was done by students using the Jal-TARA water testing kit developed by Development Alternatives.

Drinking water monitoring was conducted for winter, summer and monsoon 2006-07 by all the centres.

- Drinking water quality monitoring performed with Jal TARA water testing kit
- Drinking water from municipal and ground water sources monitored for three seasons over 2006-07.
- Sampling sites as per CLEAN-India monitoring sites.
- Surface water quality of rivers, lakes and ponds have been monitored by various centres and the findings have been published in the newspapers.

WATER QUALITY STATUS IN 30 CITIES OF INDIA

IN THREE SEASONS

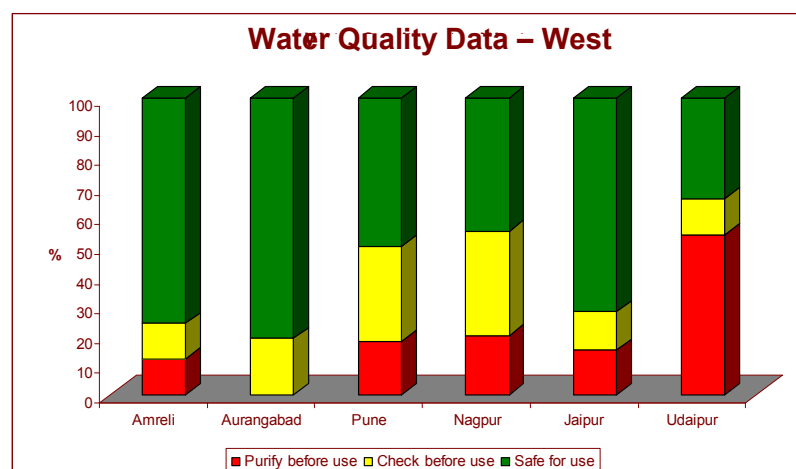
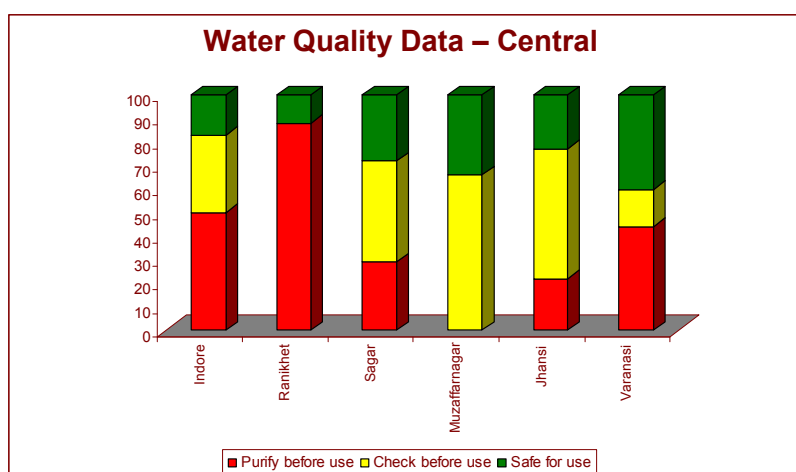
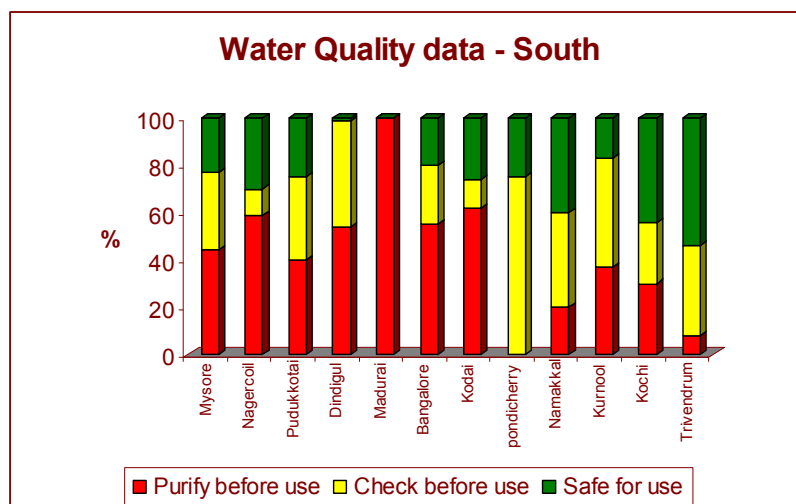


*'purify before use' implies intensive treatment required for making water safe to use

'check before use' implies simple treatment required for making water potable

'safe for use' implies water can be consumed and is safe for drinking

OVERALL WATER QUALITY STATUS IN 30 CITIES OF INDIA



2. Air Quality Monitoring

The quality of air was monitored for SO₂, NO_x and SPM at a number of locations across the country. The testing was done using the Pawan-TARA air testing kit developed by Development Alternatives. Monitoring locations included major market places, schools, near hospitals, traffic junction, residential areas, etc. During the monitoring process students also conducted traffic survey. Students also calculated the amount of carbon dioxide produced during their travel to school depending on the mode of transport. Air quality monitoring was carried out at nearly all CLEAN-India centres.

3. Biodiversity Study

Workshops have been conducted to sensitize students on various aspects of biodiversity conservation. They have been taken out for bird watching in forests, zoo and other habitats. Students also assessed the existing tree species. They were informed about importance of native tree species and how they help in maintaining the environment quality. This helped students to select the right kind of species during the greening programme. In **Varanasi** World Forest Day was celebrated on 21st March, 07 in which students were taken to a nearby forest area located in the Shajanpur area. The students were made aware about the importance of forests. In **Muzaffarnagar** and **Ranikhet** Biodiversity day was celebrated on 22nd April, where approximately 250 students from 15 schools participated. The students were sensitized about the importance of biodiversity. Wildlife week was organized with the students of three schools of **Indore**. Students were taken for an exposure visit to nearby forest area. CLEAN students from **Dehradun** were taken for an exposure visit to Hathipaon, near Kempty fall for showing biodiversity and bird watching.

In **Trivandrum**, students are regularly conducting surveys of common birds and bringing out and recording many interesting bird behaviours.

4. Managing e-waste

CLEAN-Bangalore has been working to deal with the problem of managing e-waste. Workshops have been organised in schools to brief the students on the growing menace of e-waste followed by the installation of a collection bins. Students are being asked to collect used batteries, CDs and Floppies from their school and homes. These are then recycled in an environmentally sound manner and disposed safely by E-Parisara. A permanent collection unit has been installed in nine schools and 4 new schools have joined the programme this year. Several workshops were organized with the **CLEAN-Delhi** students, to make them aware about the e-waste problem. Students did a survey in one of the informal recycling hub, Shastri Park area. The students met Mr J.K.Dadoo, Secretary Environment DoE, Govt. of NCT of Delhi with their findings.

5. Checking for Food Adulteration

Workshops were conducted to make the students aware of the issue of food adulteration, through hands on training. The exercise involves an orientation on the changing food habits, the importance of food additives and how are they harmful,

reasons behind the occurrence of food adulteration and the measures they can adopt. This is followed by a testing of food for adulteration. All the CLEAN-India centres carried out tests for checking adulterants in common food materials like milk, ice-cream, turmeric.

The following table summarises the number of sites across the country monitored for air and water quality and bio-diversity under the CLEAN-India programme.

No. of sites	In period 2006-07	Till 2007
No. of sites monitored for water quality	1130	2133
No. of sites monitored for air quality	138	302
No. of bio-diversity studies conducted	61	261

♣ OBJECTIVE: ENVIRONMENTAL AWARENESS

To generate awareness among citizens, decision makers and other stakeholders in the society on causes of environmental degradation and possible ameliorative action.

Achievements

Awareness was created at two levels, one at the school level and the other where students make communities aware about various environmental issues and take up appropriate ameliorative action.

1. Awareness Workshops in schools

Awareness was spread regarding different local issues through workshops, video films and plays. Issues addressed were Solid Waste, Air & Water Pollution, Climate Change, Energy, and Eco friendly practices like using natural colours during Holi festival and adopting environment friendly practices for celebrating festivals. External resource persons were invited to conduct workshops on these issues. Essay, drawing & painting competitions were also organised for students.

Field trips to water treatment plants, sewage treatment plants, laboratories, apiary, briquettes production technique, coir pith composting, paper recycling units, composting plants, tree walks, bird walks, river watch were organised for schools by some centres.

Climate change Awareness: To overcome the impact of climate change in their own small way the students were trained as “Young Energy Auditors” to assess the energy consumption in their schools and suggest means and methods of optimum energy use

and conservation. These young auditors would inspire other school children to adopt energy friendly alternatives in their homes and communities as well.

For this a one day workshop was organized for **Delhi** schools teachers and lead students on 11th May 2007. Students were provided with basic skills of energy auditing in their schools and they pledged to involve the entire school in this campaign.

Celebrating the River Yamuna: On the occasion of Earth Day, an awareness programme was organized with the 15 **Delhi** schools. The programme was carried out on the banks of river Yamuna. The students actively participated in the programme and also did their bit for cleaning the river.

Earth Charter Initiative: To spread the message of Earth Charter principles, Department of Environment, Government of **Delhi** has tied up with CLEAN-India programme. A series of seminars and exposure visits are being organized for the Delhi schools teachers.

ZERI Initiative: Development Alternatives being the India affiliates of Zero Emission Research Initiative (ZERI, a Swiss NGO), a workshop was organized in **Delhi** where students from 7th to 9th Grades were introduced to ZERI stories in the form of presentations. The presentation of the stories was followed by questions and discussions. The innovative approach of ZERI stories and the illustrations were extremely helpful for getting complete attention from young minds and enthuse and excite them. The students thoroughly enjoyed the stories and at end of the workshop shared experiences of innovative methods of conservation they had tried out, heard or seen.

The ZERI stories helped in creating a space for new knowledge, new insights, and indeed new visions and dreams as well.

CLEAN-India and Greening Initiatives: CLEAN-India in partnership with Trees for Future, Trees For Future is an organization that has been the steward of planting trees throughout the world since the early 1970's. They organised few workshops with Delhi schools keeping the aim of "Greening and Global Cooling Programme" in mind.

An informative brochure was prepared which was distributed amongst the students and teachers. The brochure highlighted the importance of growing trees especially native trees and also how do they help in abating global warming. There was a list of native trees of Delhi and a note on Dry Garden.

On the basis of initial orientation the students performed the following tasks:-

- Identified the trees growing in the school,
- Researched on the importance and usefulness of each and every tree growing in their school,
- Made an inventory of the trees growing,

- Mapped the trees
- Prepared herbaria and seed bank

The schools were given one month time to prepare and submit their work. It was useful in sensitizing the students on the floral diversity within their schools and helped to mobilize school action towards conservation of local species.

Mobile pollution checking: Influenced by the work of CLEAN-India programme TATA Motors and Department of Environment, Govt. of Delhi has approached CLEAN-India for undertaking pollution monitoring of vehicular pollution.

The following table summarises the number of workshops and field-trips held across the country under the CLEAN-India programme.

	In period 2006-07	Till 2007
No. of awareness workshops conducted	315	1261
No. of field trips conducted	75	193

2. Sensitising Communities

Various community meetings were organised addressing the following issues:

Intensive water quality monitoring, rallies and door to door campaigns were organised to create awareness regarding the water quality assessment reports. Pamphlets regarding remedial measures were distributed. Chlorine tablets were distributed in places affected with bacterial contamination. Reports were released in print media which formed an important tool for data dissemination and also further action. Local community leaders were motivated and educated on the issues of concern with regard to drinking water. Local health officers from city hospitals were invited for talks and to make the communities aware about the health problems they can face due to drinking contaminated water.

In **Pondicherry**, a public health programme was held at Singarathope Cuddalore with the objective of spreading awareness on solid waste management. In **Nammakal**, a workshop was held to promote good sanitation practices. As a result, 56 Eco-toilets have been constructed. On the occasion of World Water Day, an awareness programme was organized at Prahalad Ghat, on the bank of river Ganga. Nearly 200 students participated from different schools of **Varanasi**. Students were made aware about the problem growing water scarcity. The students also took pledge to conserve water.

Numerous community meetings tackling the issue of solid waste management by means of city farming have been organized in CLEAN-India centres, such as **Dindigul**, **Kodiakanal** and **Thiruvananthapuram** had meetings, group discussions with people on the need to manage solid waste and on setting up waste management systems in homes and communities. CLEAN-India centres have been able to sensitize women to set up clubs and start city farming in their colonies and these have been running successfully. This is an important source of employment for the weaker sections of the society.

This year there has been an emphasis on working with under-privileged sections of the society. People living in slums, women and *rag-pickers* were given special attention so as to improve their conditions.

The following table summarises the number of community meetings held across the country under the CLEAN-India programme.

	In period 2006-07	Till 2007
Total No. of community meetings held	190	527
For water quality management	92	231
For Solid waste management	134	332

- **Against Toxic Holi Colours:** CLEAN-India regional centres spearheaded campaigns against use of toxic Holi colours. Communities were apprised of the harmful effects of Holi colours sold in markets and were taught how to make natural and safe colours at home using simple and easily available products like turmeric, henna, flowers, red sandalwood, gram flour and other natural substances. Stalls selling natural holi colours were set up in various centres which enabled thousands of people to celebrate the festival of colours without using toxic colours.
- **Anti-Polybag Campaign:** Anti-Polybag Campaign has been initiated by all centres. Alternatives like jute bags are being provided and students have distributed paper bags and envelopes in their locality. They also circulated pamphlets describing hazards of polythene and its alternatives. Many CLEAN centres distributed paper bags to the shopkeepers. Children have become sensitive about not using polythene bags and have started influencing their parents as well.
- **Eco-friendly idols:** CLEAN-India partners have campaigned for the use of eco-friendly unbaked clay idols in various centres. In **Pune**, **Indore** and **Delhi**, CLEAN-

India partners have not only increased awareness amongst the people but encouraged many households and provided them with the alternative of unbaked clay idols.

3. Outreach through Media

Several articles (in local languages) on various activities of CLEAN-India programme have been published in local newspapers in all the centres.

CLEAN-India has been receiving coverage in the media through radio shows, televisions etc. Also, the CLEAN-India website (**www.cleanindia.org**) is an effective tool to spread the message of the initiatives taken up in the programme.

Global Environmental Youth Convention, Dubai: The GEYC Dubai 2006, was organized by Dubai Municipality in co-operation with the International Institute for Industrial Environmental Economics (IIIEE) at Lund University, Sweden and the Euro-Arab Cooperation Centre with the theme, Peace and Sustainable Development. The CLEAN India team, officially designated as team INDIA 10!, Won second prize for the project presentation on e-waste 'Small steps towards managing e-waste'. It was greatly appreciated by the participants and the jury for the originality of topic, team spirit and the Assessment, Awareness and Advocacy approach of the theme.

Digital interactive water quality Maps have been prepared for 14 cities under the programme. These maps are available in compact disc as well as on the intranet but will soon be available on the CLEAN-India website.

CLEAN-India is associated with another Delhi based NGO called 'One World South Asia' which is into making **FM Radio Programmes** on various issues like social, environmental etc. and CLEAN- Delhi has made **13 radio programmes** on environmental issues viz, water pollution in river Yamuna, air pollution during festival Diwali, global warming, birds, Earth Day etc. A series of programmes emphasizing on environmental issues were broadcasted on **Big 92.7 FM, Jhansi** A press conference was organized at CLEAN-Delhi, on the occasion of World Water Day. During the conference various issues related to water were discussed and information generated through the CLEAN-India programme was disseminated with the help of media.

CLEAN- India, by virtue of being a large network, has developed awareness materials in local languages to reach out to communities.

4. Conferences, Seminars & Workshops

As part of the CLEAN-India programme, children are encouraged to take part in National and International Conferences to learn about environmental problems and solutions in other states & countries and interact with other children and identify the problems of global stature.

The 10th Annual CLEAN India Meet was held in Bangalore on the 18th and 19th of January 2007. It was a platform for CLEAN-India network schools and centres to

exchange views and ideas and share their experience. The meet was spread over two days.

The meet highlighted the achievements in the past decade and the impacts created on ground through the role played by our youth, especially school children, in bringing about a change in the environmental conditions of our cities and towns.

This year also reorientation workshops were held at each centre so as to evaluate the work done by each regional centre and also to provide inputs for the action plan for the coming years. As the programme was at a very crucial stage where there was a transition from awareness programmes to action programmes it was required to assess the on-ground situation in each centre and also to meet various stakeholders like community representatives, government officials for their support and contribution.

CLEAN-India sent a team for the Global Environmental Youth Convention held in December, 06 in Dubai.

	In period 2006-07	Till 2007
No. of regional / national workshops conducted	4	34

♣ OBJECTIVE: ENVIRONMENTAL ACTION

*Mobilise communities to undertake environmental improvement **actions** at the local level.*

Achievements

The thrust areas for action were tree plantation, nurturing and protection; organic waste management; and water conservation and purification. Students and community groups from the different centres took on themselves to take action depending on the existing problem assessed in their area. Environmental improvement actions were taken both at the school and the community level. This year onwards there was emphasis to generate funds by the local partners so as to carry out actions which will not only be restricted to urban areas but also in peri-urban areas with emphasis on slum areas. This was done with the objective to mobilize communities to undertake water and sanitation improvement actions and to create sustainable solutions. Monitoring of the actions undertaken will lead to efficiency of the project. Once a demonstration unit is functional it will lead to multiplication and sustainability.

1. Tree Plantation and Protection

Tree plantation drives were conducted during the monsoons in various schools and communities under the CLEAN-India programme.

Through these plantation drives, students learnt the importance of planting local, native indigenous trees. This activity also helped students realise the importance of trees in our lives and more importantly that nurturing tree saplings is not an easy task. The importance of protection of trees was also highlighted. CLEAN –India students interacted with local communities and involved them in carrying out tree plantation in their respective areas. Communities were encouraged to nurture the saplings and look after the young plants till they are fully grown. Students and the community groups also received support from the horticulture / forest department for procuring hardy and indigenous species.

2. Herb Corner

Students are nurturing these herb corners where they grow plants which are of medicinal value as an alternative to allopathic treatment. CLEAN-India is also conducting a series of workshops on how to use medicinal plants for primary health care. Students are introduced to the world of medicinal plants, their uses and importance in our daily life. They are made aware on how to use easily available plants for health care using methods like making infusion, decoctions, etc. They are also encouraged to find out more about various medicinal plants from their parents / grand parents and grow them not only in the school but also their homes. In **Dehradun** herbal gardens are developed in all the CLEAN member schools. In District Institute of Education and Training (DIET), **Indore** a herbal garden was setup by the teachers. Women self help groups in **Pudukkottai** last year were trained on growing medicinal plants and preparing herbal medicines, are successfully running a small scale business. A pictorial handbook titled Green Pharmacy has been published which not only green medicinal properties of various trees/herbs but also provides information on preparation and application of the medicine.

3. Solid Waste Management

Under this, schools have promoted reduction, reuse and recycling of waste in schools. This includes:

- **Composting:**

The students have been given training on how to initiate and maintain the composting system. Waste from the school canteens and gardens are being utilized. City farming (growing plants directly on waste) has been initiated in a number of CLEAN towns. CLEAN-Delhi has successfully setup waste management systems in 20 schools in association with the Delhi Government.

- **Installation of Paper Recycling Plants:**

Paper recycling plants designed and manufactured by TARA (commercial affiliate of Development Alternatives) have been installed in schools of Delhi. This year workshops were organised for the students & teachers of the concerned schools. Students have also been trained across the CLEAN-India centres on making different paper products from recycled paper.

The trained students were enthusiastically involved in segregating paper waste, collecting and recycling the same. Working on the paper recycling plant gives the students, hands-on-experience of paper recycling and also demonstrates the concept of recycling waste into wealth. Students have creatively made their own cards, files, folders and also making invitation cards and certificates for the school.

Students also educated residents about the importance of solid waste management at local level and introduced them to a very simple process of converting biodegradable waste to manure. Students also briefed them on its functioning, maintenance and do's and don'ts. TARA Mini paper recycling unit was setup at various CLEAN-India centers, viz., **Bal Bhavan New Delhi , Dindigul, Indore, Bangalore, Nagpur.**

4. Water conservation and purification

Rain water & Tap water harvesting have been initiated in all schools. The water drainage is connected through pipes to a tank and the same is used for irrigating garden and the remaining is used to recharge the ground water table. Jal TARA Water Purification Systems have been installed in important places like bus stands, religious places, and residential schools so as to provide clean drinking water to a large number of people and also for increasing visibility. Water purification systems have been set up at **Bal Bhavan, New Delhi; Kodhi Ashram, Muzaffarnagar; Greenfield School, Dehradun.**

After assessing the drinking water quality in many places, water was found to be contaminated in many communities. Several initiatives for treatment apart from making the community aware were taken. Apart from tackling contamination, many centres took initiative in setting up water conservation systems in many areas.

Roof top rainwater harvesting is now being encouraged on a large scale by all CLEAN-India centres. Rain Water Harvesting mechanism has been set up in many apartment complexes as well as individual households in many towns. Schools, government departments, corporates have approached CLEAN-India for designing and implementation of Rainwater harvesting programmes.

The following table summarises the action programmes conducted across the country under the CLEAN-India programme.

Action	In period 2006-07		Till 2007	
	In schools	In communities	In schools	In communities
No. of solid waste management systems installed	133	54	290	132
No. of water conservation structures	75	49	165	130
No. of water purification systems installed	5	8	10	18
No of Paper Recycling Units set up	14	1	44	2
No. of trees planted	4327 Approx	4602 approx	12827 approx.	28602 approx
No. of medicinal herbs planted	950	1853	2650	3954

Significant Community Actions across CLEAN-India centres

Under the **CLEAN-India** programme various successful environment improvement actions have been undertaken, some of them are enumerated below.

Water purification system

Jal TARA Filter was installed in Green Field School, **Dehradun**. The site for installation of filter was decided with an idea of 100% utilization of filtered water. Nearly 400 plus students and other school staff will be benefited with the clean water provided from the filter

Jal TARA Filter has been installed at Sethupathy Higher Secondary School in **Madurai** on 23rd and 24th of August 2007. The school is excited about the initiative and will maintain the filter on a regular basis. It is estimated that this initiative would benefit more than 1,700 students.

Jal TARA Filter was installed in the Radha Krishna Kusht Ashram, **Muzaffarnagar** on 20th Decemeber, 2006. The filter is supplying clean drinking water to the colony and nearly 100 families are getting benefit of the filter.

Another **Jal TARA Filter** has been installed in a community at Rajakrishnapuram in **Nagercoil**. The local administrative body “Panchayat” will maintain the filter and take the responsibility of supplying water from the storage tank to the community.

Rainwater Harvesting

Rain Water Harvesting structure has been established in Saraswat Society, Chakkargadh Road, in **Amreli**. This community is situated near a school where about 1200 girl students are studying. This rain water harvesting system will benefit around 1500 people in the hostel and the nearby locality. The people have started using this water for domestic purposes and have supplemented their water supply.

Another **Rain Water Harvesting** structure has been constructed in Adarsh Vidya Mandir, **Jaipur**. The collected water is diverted towards the old boring in the school which is not functional, and adds to the ground water table. Through this technique a voluminous amount of rain water which was wasted earlier can now be collected and used further.

Six rainwater harvesting systems were setup in all **CLEAN-Dehradun** schools. The financial support for carrying the action was given by UCOST, a scheme of Uttaranchal State.

A rainwater harvesting structure was made in the Civil Lines Colony area, **Sagar**. The Zila Panchayat contributed nearly Rs 30,000 for construction of the structure. The initiative is helping in maintaining the ground water level and is benefiting nearly 500 – 700 people living in the area. 12 more roof water harvesting structures were constructed in individual households in **Damoh** city.

DA, **Jhansi** has setup a Rainwater Harvesting System at TARAGram, Orcha. This demonstration unit is facilitating the transfer of technical know how to various institutions who come for training from all over the country. Besides this the rainwater harvested is recharging the aquifer and providing benefit to several surrounding villages by providing ground water for irrigation.

RWH implemented in **Dindigul** Municipal area in individual houses, shopping complexes, schools and office buildings.

In **Namakkal**, Rainwater harvesting system has been set up with 80% contribution from the community and 100 families are benefiting from the same.

In **Kodaikanal**, Rainwater Harvesting system has been installed in Periyappa Nagar Palani. This system is running in good condition and the people of Periyappa Nagar are cooperating very well. This system is expected to benefit upto 50 families in the locality.

Solid waste management

A vermi-composting unit has been set up in **Nagpur** viz. **Wanjra** locality impacting 700 people. There was contribution from the community for setting up and maintaining the system.

Solid waste management systems have been setup in twenty schools of **Delhi**.

Two societies in **Amreli** namely Jivraj Park and Saraswat Society have set up waste segregation system in the households. People have been given three types of waste bins to segregate and dispose different kinds of waste materials. There are plans to set up vermi-composting unit in these societies for better management of wastes.

Vermi-compost pits have been constructed in the premises of AVM School and Science Park, **Jaipur**. The kitchen waste generated by the hostel mess of AVM School is used for this purpose whereas in the Science Park dried leaves are used for the same. After a month this waste gets converted into good quality manure.

In the process to set up **solid waste management** system in **Varanasi** several round of talks were made with the Director and other officials of the Central Institute of Higher Education, Tibetan Sansthan. The Institute hostel was selected for the activity, where nearly 150 students live. The canteen waste of the hostel is utilized in the vermi compost pit. The compost pit was constructed behind the hostels and concerned persons were provided with training to look after it.

A solid waste management system was set in Surendra Nagar and Janak Puri Colony, **Muzaffarnagar** on 16th Jan, 2007. A pit was constructed in a park near the colony where kitchen and biodegradable waste from the colony is used to make compost by natural composting method. At present waste from 285 families of both the colonies is being utilized to make compost.

In **Madurai**, Solid Waste Management has been in the two slums namely Mela Vassal and Karumbalai Slums. Vermicompost pit has been constructed with help from the community at Karumbalai and Mela Vassal slum. Around 400 families will use the compost pits and the vermicompost collected will be sold with the support of CRED NGO'S network.

The vermi-composting pits have been constructed at Suchindram Panchayat in **Nagercoil**. The waste from households have been collected and stored. The site will be functional soon after the inauguration and completion of the compound, which is under construction.

Solid Waste management structure has also been set up at **Kodaikanal** with the help of local people. The area now looks very clean and is also attracting people from the neighbouring villages to receive training on composting practices. Self Help Group women have been trained to prepare the compost and are now canvassing the public to buy the vermicompost. This has benefited upto 25 families. To date, they have harvested more then 2000 kgs and are using it for their Kitchen Gardens. They are

setting a good example for others to replicate.

In **Dehradun**, a solid waste management system was setup in Kunja Grant village. The initiative created a big impact and members of a Tibetan community approached the CLEAN-Dehradun partner for setting up **Solid Waste management** system in a Tibetan colony in **Dehradun**. A waste management collection and disposal system was setup and is successfully running.

Small scale Solid waste management initiatives have been carried in a community in **Madurai**. This is used by the residents to make vermi-compost from organic waste. The pit is managed by a SHG who is benefiting from it.

A vermi compost pit was established in the DIET, **Indore**. Daily about 20 kgs of kitchen & garden waste is generated from the hostel and utilized for making compost. The system is running successfully and the first harvest of compost is utilized in house gardening.

In **Ranikhet**, an enzyme based waste management system was set up in the Cantonment Board guest house premises. Reason for selecting Cantt's guest house is because it was the only available/suitable place for the proposed action. Cantt. administration has agreed to take care of the operation and maintenance of the compost pit, and has trained one staff of the guest house for proper maintenance of the compost pit. The unit is a demonstration at public place.

Mini Paper Recycling Unit

A TARA Mini Paper recycling unit was setup at Vidhya Sagar School, **Indore**. For installation of the recycling machine a separate room was constructed in the school.

A TARA Mini paper recycling unit has been set up in **Dindigul** at the Teachers Training Institute. A TARA Mini Paper Recycling Unit will be set up in **Nagpur**.

A TARA Mini paper recycling unit set up at Maya Organics **Bangalore**

Under the CLEAN-India programme Mini paper recycling units were setup at various places viz., Cathadral College **Jhansi**, **St. Atulanand Memorial School Varanasi**, **Maharani Lakshimi Bai School Sagar, Bal Bhavan, New Delhi**

Tree Plantation

Around 100 saplings were planted in **Amreli** as a part of minor action at Swaminarayan High School. City farming in four communities of **Aurangabad** was carried out and around 100 saplings planted on their terraces in waste polybags using organic waste as compost. Nearly 100 saplings were planted in Waluj Village near **Aurangabad** on the occasion of World Environment Day. 50 saplings were planted in the premises of Science Park by the students of Chanakya Vidya Ashram in **Jaipur**.

Massive tree plantation drive was undertaken by the help of various students of Rajiv Gandhi Navodaya Vidyalaya, **Dehradun** where nearly 100 saplings were planted.

120 saplings were planted by the students of Prem Vidyalaya, **Tarikheth** on community land.

Students of R.S. Convent School, Guru Nanak School and Bal Vidyalaya Madhyamik School, **Varanasi** took part in plantation drive and planted nearly 250 saplings of indigenous varieties in the Sriga Stadium, Kashi Enclave Colony and Premchand Nagar Colony.

Students of Rashtriya Public School and DAV Public School, **Muzaffarnagar** planted 50 saplings of various useful varieties in the Janakpuri area.

Extensive tree plantation drives have been carried out in **Dindigul**, **Pondicherry**, **Kodaikanal** and **Madurai**. They have not only added to the aesthetic value but are also benefiting the local communities. Approximately 400 families will be benefited from these drives. The success of this campaign lies in the fact that resident associations have taken the responsibility of maintaining the saplings and most of the plants are surviving.

Massive tree plantation drives were carried out in 9 villages of **Namakkal**. More than 900 tree saplings have been planted. In addition, 50000 plants were distributed to Schools & Community. Trainings were also imparted by students to their fellow students on the correct technique of planting and nurturing trees. Tree plantation drive was carried out in all the CLEAN-**Ranikhet** schools and nearly 800 saplings were planted in the months of May and June. In **Dindigul**, in order to increase the green cover of the local community, upto 100 saplings were planted in an NGO colony.

Tree plantation drive was also successfully carried out at Green Garden residential area of **Pondicherry**.

Herbal garden has been set up in **Pudukkottai** and Eco lawns in **Dindigul**. Herbal and medicinal gardens were also setup at various places in **Ranikhet**, **Varanasi**, **Dehradun**, **Ratlam** and **Indore**.

Soak Pits

Soak pits near hand pump have been constructed in Pudukkottai. The local NGO has been successful in leveraging funds from local sources and this initiative is estimated to benefit upto 40 families in the area.

In order to conserve water, one **Soak Pit** near a hand pump and one **Tap water harvesting** system was constructed in a temple in **Damoh** city.

A soak pit was constructed near a hand pump area in a Stadium in **Varanasi**. The area near the hand pump was not having proper drainage for the waste water, which lead to clogging of waste water around the hand pump. With the cooperation of Stadium

administration a soak pit was constructed. Thus the waste water from the hand pump is now filtered and utilized for recharging the water table.

Soak pits have also been set up in slums and near hand pumps in **Dindigul** improving the overall hygiene of the area. In **Kodaikanal** upto 20 families have benefited due to the construction of the soak pits. Similar constructions are underway in **Pondicherry**.

Tap water harvesting

Tap water conservation in slums has been carried out in Pudukkottai. Approx. 11 families are benefiting from this, where they are using the waste water to grow vegetables in the kitchen garden.

Initiatives like setting up Tap water conservation systems and Septic tanks in slums of **Dindigul** and **Pudukkottai** respectively ensure safe sanitation practices. In **Pudukkottai**, 150 families and SHG members have benefited from this initiative.

An abandoned bore well located in the premises of Govt. Middle School, **Indore**, has been recharged with the help of wasted tap water from a 'Piyau'(drinking water tap) of the school. The action will benefit nearly 500 – 700 residents of the Malwa mill community area

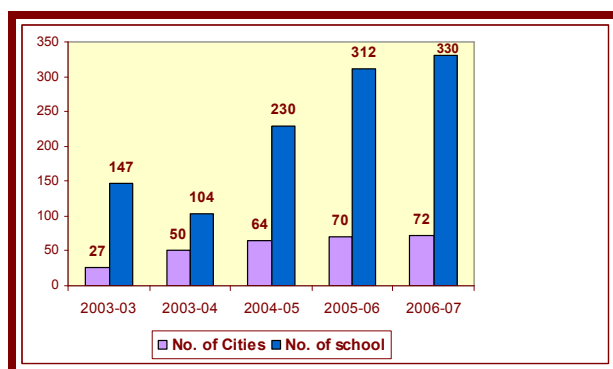
OBJECTIVE: ADVOCACY

Networking with different communities and agencies to collectively work towards sustainable community action.

CLEAN-India is a community based programme. It envisages mobilising communities to take care of the environment. To make this possible the programme helped different groups in the community to work collectively.

Achievements

The CLEAN-India network is slowly spreading across the entire country to more number of cities and hence more NGOs and more schools. Over the years over 72 cities and 330 schools have become parts of the CLEAN-India programme. The following table shows the spread of CLEAN-India over the years.



CLEAN-India has also been networking with a number of other agencies for successful implementation of its various activities. These include municipalities, line departments, resident welfare associations, pollution control boards and other NGOs. Municipal Authorities/Jal Nigams of Pondicherry, Muzaffarnagar, Sagar, Bangalore, Amreli and Udaipur have been informed of the water quality results and to take remedial measures in this regard.

CLEAN – India has come a long way in achieving what it had set out to. The objectives are just individual steps which would help in attaining the final goal- of developing cleaner and greener towns and cities. The members of CLEAN-India take pride in its achievements and are working diligently to strengthen the programme and make it more sustainable.

2.4 Significant Impacts of the Clean-India Programme

With the kind of impacts CLEAN-India has had across the country, the movement is being lauded by both communities and governments. The following are some significant impacts created by CLEAN-India

- Intensive greening activities by CLEAN-India students have led to the massive increase in green cover in most cities. In Delhi alone, the green cover increased from **10.5 % to 18 %** in the last four years. Children have not just planted trees in schools and communities but also ensured regular after-care for them. The survival rate of the trees has gone up from 60%
- The CLEAN- India methodology of environment assessment has been adopted by a number of organizations for carrying out sustainable community actions. Inspired by CLEAN-India, environmental organizations are extensively monitoring water quality, even of highly remote areas using the mobile water testing kit. Environment management plans are made based on the results obtained and the locals are trained on the various treatment methods that can ensure them of good quality water.
- Intensive campaigning by the CLEAN-India students has resulted in an incredible attitudinal change, leading to eco-friendly immersion of idols, preventing pollution of water bodies. Similarly, campaigning by CLEAN-India Students in North India has led to people refraining from using harmful synthetic colours for celebration of festivals like Holi. Large numbers of people have now started using natural colours made from plant extracts.
- This Diwali the level of air and noise pollution in Delhi was the least for the past three years and all this has been made possible because of the active campaign by CLEAN-India to raise awareness amongst students for not burning crackers.
- CLEAN-India website has been recognised as an important agent of disseminating information on environmental issues.

- Initiatives of one CLEAN-India partner have been replicated by other centres. For instance the city farming concept initiated by **Aurangabad centre has been replicated in Kodaikanal, Dindigul and Nagercoil**. Solid waste collection system mode set up by **Sagar** is successfully replicated in **Muzaffarnagar, Ratlam and Amreli**.
- The CLEAN –India programme has been successful in achieving its primary aim of sensitizing and changing minds towards cleaner Environs. More and more students and communities have become aware of environmental issues like never before. They realise the need for working for its protection and are willing to do so.

The CLEAN-India Programme has been recognised as an exemplary programme by National and International agencies. Here are a few examples to illustrate this:-

◆ Earth Charter Affiliate for India

Development Alternatives has been designated as the Earth Charter affiliate for India by the Earth Charter Commission.

“India – Bringing the Earth Charter message to children”

With the objective of expanding the Earth Charter to millions of children and youth across India, as well as to raise general awareness about sustainability, Development Alternatives created and disseminated a "Children's Earth Charter" through its CLEAN – India programme. The adapted children's version - based on the four parts and the main principles of the Earth Charter - has been translated into eight Indian languages: Hindi, Urdu, Bangla, Gujarati, Tamil, Telugu, Kannada and Malayalam (available through CLEAN-India web site:

<http://cleanindia.org/Earth%20Charter.htm>).

◆ International Alliance Youth Portal for Humanity - Partner

The Alliance Youth portal for humanity is formed with a mission to connect people, who through personal and social transformation are committed to creating a just, peaceful and sustainable world, reflecting the unity of humanity. The values and principles are based upon the support of policies, causes and actions that favour respect for life, human dignity, freedom, ecological sustainability and peace.

The portal was launched in August 2005 with CLEAN-India, Development Alternatives being one of the partner organisations involved in the launch.

◆ ZERI (Zero Emissions Research Initiatives)–South Asia

CLEAN-India, Development Alternatives is designated as ZERI –South Asia Partner. ZERI is a not for profit network of scholars and vigorous operators supported by scientists who wish to design and implement creative solutions to the pressing problems of our time and respond to the basic needs of people with what they have. Fairy tales designed and developed by ZERI are being used as a resource in the

CLEAN-India programme. These have been translated into Hindi by DA and inspire the children and make the complex inter-relations in environment simple so that the children can relate to the issues.

ACHIEVEMENTS AGAINST 5TH YEAR PLAN OF ACTION

CLEAN-India activities for the five year focussed on strengthening the network and carrying out activities as per the schedule

Year4	Activities	
Month 1 (November, 2006)	<ul style="list-style-type: none"> Preparing Action plan for the fifth year Follow-up of community actions initiated in all centres Air Monitoring (Post- Deepawali), Campaigns against air pollution 	<ul style="list-style-type: none"> Action plan circulated to all CLEAN schools and partners Air Quality Monitoring at 78 sites
Month 2 (December, 2006)	<ul style="list-style-type: none"> Action programmes to be initiated in all outstation centres 9th Annual CLEAN-meet, participants from 13 regional centres across the country Installation of paper recycling units in 5 schools in Delhi 	<ul style="list-style-type: none"> Outstation centres identified, discussion for community actions 9th CLEAN Meet organised on 1st and 2nd December 2005 Paper recycling Units established in 4 schools
Month 3 (January, 2007)	<ul style="list-style-type: none"> Follow up of action programmes in school campuses Water quality monitoring (winter) Reorientation Workshop for eleven RCs of South Zone organised by Zonal HQ, (NGO Coordinators, school teachers and students) 	<ul style="list-style-type: none"> Water Quality monitored for 903 sites Reorientation workshop for South Zone Partners held in Bangalore
Month 4 (February, 2007)	<ul style="list-style-type: none"> Reorientation workshops for 9 RCs in Central Zone organised by Zonal HQ Reorientation workshops for 6 RCs in West Zone organised by National HQ 	<ul style="list-style-type: none"> Reorientation workshop for West Zone Partners held in all the centres. Reorientation workshop for Central Zone Partners held in all the centres.
Month 5 (March, 2007)	<ul style="list-style-type: none"> Organise public hearing based on monitoring results. 	<ul style="list-style-type: none"> Eco Holi Campaigns across all centres with more than 50 workshops and sale of Natural Holi colours
Month 6 (April, 2007)	<ul style="list-style-type: none"> Large scale awareness campaigns on use of Eco-friendly colours during Holi. Combined orientation programme at each centre for all new CLEAN –India students and teachers-in-charge Conduct air and water quality monitoring (summer) Set up mini paper recycling units in 5 more schools in Delhi, and at least one each in 5 Regional centres. 	<ul style="list-style-type: none"> Water Quality Monitoring for 903 sites Air Quality Monitoring for 78 sites Paper recycling units set up in three schools of Delhi Over 150 Orientation workshops for new students at all centres Celebration of World Earth Day 2006
Month 7 (May, 2007)*	<ul style="list-style-type: none"> Initiate Vermi++composting and city farming in at least 2 communities per RC Initiate setting up of water conservation and purification systems in at least 2 communities per RC Development of resource material/ modules by NGO partners 	<ul style="list-style-type: none"> Tree Book developed by CLEAN-Delhi Water Purification systems set up in 5 centres Workshops in 15 schools of Delhi for setting up waste management systems
Month 8 (June, 2007)*	<ul style="list-style-type: none"> Strengthen community action initiatives and regular follow-up with community. 	<ul style="list-style-type: none"> Celebration of World Environment Day 2006 Initiation of City farming in 2 cities
Month 9 (July, 2007)	<ul style="list-style-type: none"> Introduction of new modules/ concepts/ projects in schools Large scale tree plantation in parks and barren areas within communities. Initiate vermi++composting and seven pot system of waste management, tippy-tap system of water conservation in all CLEAN –India schools 	<ul style="list-style-type: none"> Tree Plantation across all CLEAN-India centres Waste management systems set up in 2 schools of Delhi
Month 10 (August, 2007)	<ul style="list-style-type: none"> Water quality monitoring (monsoon) Complete tree plantation, provision of tree guards and action for sustenance. Setting up of herb corners (medicinal plants) in schools and communities Formation of Parents' Eco-Club in schools 	<ul style="list-style-type: none"> Celebration of Van Mahotsav in Delhi Tree Plantation across all CLEAN-India centres 18 Parents eco-club formed in 3 centres
Month 11 (September, 2007)	<ul style="list-style-type: none"> Evaluation visits to all regional centres Follow-up on Community action 	<ul style="list-style-type: none"> Evaluation visits to centres Community action on sanitation measures initiated in 20 towns.
Month 12 (October, 2007)	<ul style="list-style-type: none"> Bio-monitoring of rivers Campaigns on Eco-visarjan and Eco- Dusshera Air monitoring (Pre- Deepawali) Anti-cracker campaign Follow up with CLEAN partners, compiling reports from partners 	<ul style="list-style-type: none"> Waste management systems set up in 2 schools of Delhi Eco Diwali Campaign in schools Air Monitoring in 78 sites pre and post Diwali Awareness programmes on the harmful effects of crackers

Selection of Partners: For a nationwide programme there is no option but to decentralize the work by incorporating a number of partners. A careful selection based on defined criteria is essential. Partners have to have technical capability, capacity to fulfill the objectives, good rapport with school principals and teachers, ability to handle school children and communicate, understand the aspirations of the community and have good relations with the civic agencies and the government/administration. A fine balance has to be ensured in selection of the partners. They must not be short of trained staff and should not be too big, having their own agenda which would preclude them to devote enough time for the project. They must be treated as partners in an important assignment and given due recognition for their efforts. Grassroots NGOs are most suited to the local conditions and have wide experience on environmental actions. However, they are weak in documentation and financial management and need proper guidance.

Number of Partners: The number of partners depends on the spread of the programme. In a large, countrywide programme there is no option but to co-opt local partner NGOs having good rapport in their area of operations. Large number of partners creates administrative problems which can only be solved by having dedicated staff in the organizational structure. This coordination was achieved by having a chain of command and control, from the DA HQ down to Zonal HQ, who in turn were looking after a number of regional centres. The regional centres were looking after their own town and a couple of neighbouring district HQ towns, thus ensuring an even spread to carry out the activities. At DA HQ dedicated staff was assigned to each Zonal HQ.

Communities: Communities were found willing to cooperate when they realized that a certain action would bring immediate benefits. It was also necessary to show success through a demonstrable model so that it could be replicated. Actions had to be planned in such locations which had high visibility. For example, setting up a water filtration unit inside a temple complex, or a solid waste management system in a slum locality, where inhabitants realized that clean surroundings would provide safety from diseases, helped in getting cooperation from the beneficiaries. It had to be ensured that a system set in place was workable because failure led to bad publicity and non-cooperation.

Changing Attitudes: In India, to bring about attitudinal changes is a herculean task. People do not hesitate in throwing garbage as they suffer from NIMBYS (Not in my backyard syndrome), and they associate garbage collection duty as that of the municipal authorities. They throw rubbish in water bodies even while revering certain rivers and tanks as part of their rituals. Mother Ganges or Mother Yamuna area sacred but they are also receptacles of filth.

Unless an attitudinal change was brought about the success of the programme would have been jeopardized. It was felt that children were the best engines of change and

their voices would not go unheard. Besides mobilizing the communities, they were instrumental in making this change at the household level. For example, a motivated child could get the parents to economize on electricity, segregate kitchen waste at source, ensure the vehicle driven by the parents is properly tuned up to minimize vehicular pollution etc. The programme also incorporated Eco-Visarjan, the alternative to immersion of idols made from plaster of Paris of Lord Ganesh and Goddess Durga in specially constructed tanks and not in rivers. Alternative method of making idols of unbaked clay was also demonstrated, giving reasons that in olden days the idols were either made from unbaked clay or in metal which could be reused subsequently.

Handling Civic Agencies: It is an accepted fact that urban environment needs involvement of all stakeholders and civic agencies like water and sanitation department, forest and horticulture department, sewage, slum wing, market associations, the administration and also elected representatives. There is a general perception of these agencies that NGOs would be treading on their toes and have no business in getting involved in their mandate. They are also aware that alone they would not be able to carry out their task in its entirety and to the satisfaction of the people. For example, resistance was met from the safai karmacharis (sweepers of the municipality) who felt an intrusion when ragpickers were recruited to handle residential waste and convert biodegradable waste into compost. It was an encroachment on their side income from residents, over and above their government salaries. To remove such stumbling blocks all out efforts were made to make the residents understand their social responsibility towards the marginalized communities, which besides providing livelihoods was also instrumental in reducing crime, to which the poor were susceptible.

Involvement of School Children: Due to heavy school curriculum and intensive competition, school children hardly get time for extra-curricular activities. They are more often discouraged by the school and even their parents to take on other activities other than cramming their text books to get outstanding results in the examinations. The result is a product with theoretical knowledge but without any idea of its practical application. It is not realized that a child gets more all-round knowledge by practically doing things on the ground. For example, if a child takes part in tree plantation his/her questions on the suitable climatic conditions for that particular sapling, its growth, shape of leaves, size/colour of fruit and if edible, its medicinal properties, wood for building material and furniture, etc could be answered. This becomes a very interesting learning process which would remain as a lasting impression on the child. For water testing the child learns about titration, impurities in various supplies of water and how they contaminate, diseases which result in contaminated water, precautions and remedies. In waste paper recycling the child learns new and creative ways of making paper out of waste.

CLEAN-India programme was in a large measure successful in making all concerned realize the important aspect of seeing, doing and learning and creating a large number of future citizens who care for the environment.

Implementation leading to visibility: Successful implementation of an activity enhances its visibility leading to its adoption by others and support and propagation by the government/administration. In Varanasi a water purification system was installed at the new Kashi Vishwanath Temple in the Benares Hindu University campus. This is benefiting hundreds of tourists and pilgrims by supplying potable drinking water. The same was observed by the Tibetan Institute at Sarnath (Varanasi) and successfully implemented. In Delhi schools the Delhi Government agreed to fund installation of twelve mini paper recycling unit with part support from the corporate and the individual schools. Its success was observed by the Chief Minister, Delhi Government and very soon a full-fledged waste paper recycling unit was set up at the Delhi Secretariat. No project can be supported for an indefinite period of time. For ensuring sustainability and replicability, it is most essential that successful actions are carried out which could benefit the society and, if possible, lead to creation of livelihoods, especially for the weaker sections of the society.

Innovation and Rigour: Where a number of partners join together to implement a programme there is great scope for innovation and learning from each other. Locale specific ideas are thrown up, new innovations are introduced and which can be replicated by others. During the programme ideas of eco-friendly Holi celebration with organic colours, use of unbaked clay for making idols for immersion after the festival, using jute and paper bags instead of polythene, learning about food adulteration came up. These were incorporated and documents were prepared for circulation to all partners. School children were introduced to energy audit, to understand the importance of energy conservation and how excess energy usage influences climate change. Energy audits were started in schools and children were encouraged to carry out this audit in their homes. This initiative led to change over to CFL bulbs.

Most of the literature on medicinal plants gave the plant species and against them the medicinal benefits. To bring out rigour on this aspect documents were made to also include the method of making the medicine from a particular part of the tree (fruit, leaves, roots or bark) and how they have to be consumed and in what quantity. This was a step forward in the learning process. Partners were encouraged to design new activities which could benefit everybody. **City farming** and **Tippy Tap** (method for water conservation) were replicated by others.

Sharing Experiences: During the programme, Annual CLEAN-India Meets were organized to bring together all partner NGOs, teachers and school children on one platform. This provided an opportunity to acquaint others of what has happened in a centre during the year, sharing experiences and culling out best practices for others to emulate. The learnings helped in strengthening the programme, finding out shortcomings and devising ways to overcome them. It resulted in creating a bond between partners who were proud to belong to the CLEAN-India family. Children came

prepared to demonstrate new ideas on how they would like to live in harmony with nature. Special invitees from the government/administration got an insight on the importance of incorporating school children in environmental programmes and the importance of devising school curriculum to include environment science as a core subject in all classes.

Stakeholder's Responsibilities: It is essential that all concerned administration officials are co-opted in the effort and provide assistance both in substantial and financial terms. A detailed plan of action has to be formulated and bottlenecks identified and removed to ensure time bound implementation. Unless a success is achieved and the activity is demonstratively sustainable, it will be a non-starter and will adversely affect all future endeavours. The adage **nothing succeeds like success** must always be kept in mind. Every responsibility has a prime mover and there are others who assist. For example, disposal of solid waste is the prime responsibility of the municipality. However, others should assist so that the task of solid waste management becomes easier. The administration has wide powers within their area of jurisdiction. These should be used with discretion with the overall aim of improving the environment and a legitimate activity of a stakeholder should not be curtailed. The aim should be to ensure a cleaner and healthier environment in the urban centres. The administration should encourage individual initiatives. Communities should not look all the time over their shoulders for help and contribute in whatever way for improving the environment conditions in their community area. CLEAN-India programme took the opportunity of riding piggyback on parents /teachers meeting in schools by introducing Parent/CLEAN meetings with hope that at least a few parents, who are concerned with environment and are office bearers in their Residents Welfare Associations (RWA), would contribute by taking the lead within their communities. This initiative has proved successful and more and more RWAs are becoming active in this regard.

Campaigns: Campaigns against environment degrading activities proved very successful in sensitizing the public. Children took part in rallies, street theatres, puppet shows and clean-up drives to bring home the point that care and time for the environment is time well spent. It also brought to the notice of the authorities the problems facing the urban centre and how they can be solved. It also highlighted the importance of the social responsibility of the business and corporate sector not only in maintaining a healthy environment but also contributing in kind for improvement actions. Shopkeepers were encouraged to minimize dealing in polythene bags and use of jute/paper bags instead. As a result in a few towns the administration has totally banned the use of polythene bags. At a number of places students carried out clean-up drives which brought about the realization that it is important to clean ones surroundings but also it is a noble task to go somewhere else and do the cleaning up for others. It put to shame to those who saw the children wearing gloves and masks, happily collecting the garbage thrown by them. Children removed nails and hoardings from trees, de-tiled the area around trunks and removed tree guards which were hampering their growth. It was a lesson worth learning that trees also have their life and worth and we should protect them for damage and stifling. They knew their lessons that trees provide shade, rain, fruits, medicine, wood for construction and furniture, prevent soil erosion, and provide shelter for birds and animals. Hence, they have to be looked after. As a result

in some towns, including Delhi, a tree helpline was established to take calls on any destruction of trees and prevent such activities.

The CLEAN-India Programme aims to carry out environment improvement actions involving various stakeholders. The programme establishes networks with CLEAN-India Partners forging links with various organisations and groups for implementation of sustainable actions.

CLEAN-India is a network of schools, non-government organisations, local & regional authorities, corporates and public in large. It serves as a platform for learning, sharing and collaborating for effective implementation.

The programme is constantly increasing its outreach and establishing links with a variety of stakeholders. Besides the schools and NGOs (which are a direct part of the programme), community groups have been involved since the second year. Starting from the second year, each Regional Centre has involved at least three neighbouring towns/ cities in the programme and is still increasing the number.

Networks / Partnerships at all levels (Schools, Regional Centres, Zonal Head Quarters, National Head Quarters) have been established with the following;

- Resident Welfare Associations
- Non Government Organisations (besides CLEAN-India NGO partners)
- State Education Departments
- State Pollution Control Board
- State Municipal Authorities
- Departments of Environment, State Government
- State Forest, Horticulture and Agriculture Departments
- Parents Eco Club
- Industries & Industrial Associations
- International Organizations
- Electronic and Print Media

The aim of the CLEAN-India programme for creating cleaner India can be realised only if more and more people are aware of the programme and become part of it. The linkages with the various agencies are important not just for ensuring sustainability of

the various action programmes, but also for enhancing visibility and hence replicability of the programme.

5.1 Examples of CLEAN-India linkages

CLEAN-India centres across the country have established linkages with other projects and programmes running in their respective cities

- **CLEAN-Delhi** tied up with the Ministry of Environment and Forests, Government of India for making the masses aware about the situation of River Yamuna. The programme was organized on the occasion of World Earth Day.
- **CLEAN-Delhi** in association with the Department of Environment, Government of Delhi is working to spread the message of Earth Charter principles for “Sustainable, Just and Peaceful Living”. This is done with the help of conducting teachers trainings for Delhi Schools teachers. CLEAN-Delhi along with DoE, has successfully establish waste management systems in 20 schools of the national capital.
- **CLEAN-Bangalore** is working with WEP Peripherals, a corporate house for raising awareness on water conservation in schools and also for efficient e-waste management.
- **CLEAN-Jhansi** is working with the Municipal Corporation and the State Pollution Control; board for increasing awareness on the harmful effects of polythene usage and is working for banning its use in market places.
- **CLEAN-Sagar** is working with the Municipal Corporation for setting up rainwater harvesting structures in the town and is working in the preparation of Detailed Project Report for Solid Waste Management for other towns of the region. CLEAN-Sagar is also successful in setting up a model for door to door waste collection in seven colonies of Sagar city.
- **CLEAN-Indore** is working with DIET and Kasturba Gram Rural Management Institute . As both the institutes are working directly involved in training of teachers, thus the message of CLEAN-India programme is not only spreading through teachers but also through trained teachers.
- **CLEAN-Dehradun** has tied up with Uttranchal Govt. and is helping promotion and installation of rainwater harvesting in schools. The financial support for setting up system is provided under UCOST, a scheme of Uttranchal Govt.
- **CLEAN-Kodaikanal** is working with the civic authorities for improving the sanitation services in the slums of the city. They are in the process of setting up toilets in these areas.
- **CLEAN-Nagpur** is working with the Municipal Authorities for installing dust bins in unauthorised slums of the city.

- **CLEAN-Aurangabad** is working with Garware Industries Ltd, one of the largest polyester industries in India, for setting up vermi-composting units, city and organic farming in the industry campus.

5.2 Sustainability

The CLEAN-India programme can be successful only if it is sustainable. Efforts have been made to make the programme both financially and institutionally viable.

▪ *Financial viability*

Besides the main funding from the European Commission, support has been received from **the Delhi Government; Ministry of Environment & Forests** and Government of India; State Governments; Central Pollution Control Board; and respective State Pollution Control Boards. We have been able to generate funding from **Fondation Ensemble** for implementing community environment actions with emphasis on water and sanitation activities in peri-urban areas. Funding has come from **Government of Tibet, Arghyam Foundation, Department of Science and Technology, Govt. of India** for various projects with an emphasis on water and sanitation actions.

As the programme is modular, financial support was elicited from donors depending on their thematic interests and geographical area of operations e.g., this year, **UNICEF** and selected drinking water as an issue in different geographical areas. Partner NGOs are also working towards generating funds locally and some of them have succeeded in achieving that.

▪ *Institutional viability*

The Programme is a large network of like-minded institutions. The evolved structure aims at checks and balances at every level from the National HQ down to the schools. There is 'ownership' of activities, outputs and impacts at every level in the programme. Each endeavour is backed by a sound institutional mechanism to sustain the efforts. For example, a solid waste management system will be looked after by a committee demarcated by the beneficiaries. And this committee will be evaluated by the Residents Welfare Association (RWA) of the colony. The local authorities are being involved after successful demonstration to replicate the efforts on a large scale.