

Key achievements

n keeping with its long-term objective of finding answers to the challenge of sustainable development in India, CSE's long –term objectives are: (1) Communicate to build an informed public opinion about change; (2) Research and advocate changes in policy and practice; (3) Network and outreach the knowledge to build capacities; and (4) Build up a powerful knowledge portal of environmental information.

It is not easy to measure the impact of the work in areas such as policy advocacy and awareness creation. But last year, there were overt evidences that people are taking note of the work that CSE does. *Nature*, one of the world's leading and influential scientific journals, published from the UK, featured CSE and Sunita Narain as a cover story. It said of CSE, "...has established itself as a significant voice over a wide range of issues. Indeed, in many cases, it is the first place Indian media go for a non-official viewpoint on environmental matters". Atul Deulgaonkar, a journalist wrote a book on Anil Agarwal and CSE, 'Saga of Environment, and Enlightened Environmentalist', in Marathi, which was adjudged as the best book on Science by the government of Maharshtra. CSE director, Sunita Narain was featured by the *Time Asia Magazine* as one of the six Climate Crusaders of the world fighting pollution.

During the year, some of the policy research and advocacy programmes undertook a more detailed exercise of stocktaking to determine future directions. Launched between 1995-97, many of CSE's knowledge-based advocacy programmes — such as the Clean Air campaign, Water campaign and the Green Rating programme — had achieved the short-term targets they had set for themselves. It was time for a review to determine the next set of objectives.

Thus, the Green Rating Project, which had hitherto rated the environmental performance of Indian industry, expanded to become the Sustainable Industrialisation programme. It aims to now

address the needs of regulators as well as the communities, in addition to industry. The industry component itself will be broadbased to be able to cover small-scale industries as well as to deliver quicker ratings. The entire programme will be strengthened with continuous research with the aim of bringing policy change.

Similarly, the Water campaign, which had focussed on water conservation and harvesting, expanded to include issues of water pollution and urban water management. A sub-team was formed to work on issues relating to river pollution, with initial emphasis on the river Yamuna. The team's work resulted in a publication called *The Sewage Canal*, which will be the launching pad for CSE's campaign on Right to Clean Rivers. Another sub-team has



brought together information on urban water management practices from over 70 cities across India. This will be used to produce a publication and launch a campaign for improved urban water management practices.

Yet another team was formed during the year with the task of bringing to fore the role of natural resource management in addressing rural poverty, with a special emphasis on water management. The team will push for good governance of the new National Rural Employment Guarantee Act (NREGA) to foster creation of durable rural assets. Finally, a separate team continues with the ongoing programme of water harvesting through advocacy and training programmes.

The Right to Clean Air campaign was also at a stage where it needed to come up with long-term solutions for ensuring clean air quality. After years of working towards improved fuel quality, emission norms, maintenance and inspection procedures and making available non-adulterable fuel, the team is today confronted with the problem of unsustainable growth of vehicular population. The team has, therefore, moved into the area of mobility management and is pushing for a stronger public transport system. Its advocacy has been fruitful: the Delhi government has begun work on the first component of the project. As part of the mobility management initiative, CSE is also looking at issues of parking policy in an effort to reduce the use of private vehicles.

In 2006, the Centre's Anti-toxin campaign released a follow-up study on pesticides in soft drinks. Samples tested by CSE showed that there still were very high levels of pesticide residues in soft drinks and that manufacturers had not done anything to clean up their act. The impact of the CSE study has been considerable. In February 2007, a committee set up by the Health Ministry to notify standards for soft drinks mandating a final product standard for one part per billion for individual pesticide residues in soft drinks. CSE also intervened in the process to draft a new law (The Food Safety and Standards Act) to make it more safety oriented and to safeguard the right of Indian public to clean, wholesome and hygienic food. The campaign is ongoing and CSE will take up new studies and research in the coming year.

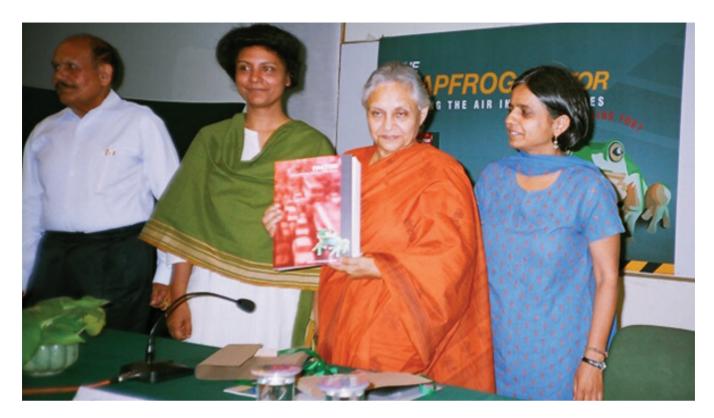
The education and outreach teams continued their activities with good impact. CSE's Environment Education programme helps schools put into practice good environmental management with the aim of inculcating values and skills among students. During the year, CSE rated the schools, which were part of this programme under the *Gobar Times* Green Schools Award, and found that even small or rural schools were doing an exemplary job of implementing good environmental practices.

The media team, jointly with the Natural Resource Management team, conducted a media fellowship and briefing workshops for journalists on NREGA. The programmes helped bring about greater awareness about the linkages between environment and poverty among the media. The Anil Agarwal Green College (AAGC) conducted several short-term courses for a variety of interest groups, and also continued its programme on the Challenge of the Balance for foreign university students. This programme has been highly commended by students and teachers of Oslo University.

RIGHT TO CLEAN AIR CAMPAIGN

The year 2006-07 began with the launching of our second book on air pollution *The Leapfrog factor: Clearing air in Asian cities* that charted the course of our campaign and framed the second-generation measures to control air pollution. In a public meeting on April 19, 2006 Chief Minister of Delhi Sheila Dikshit released the book and in this well attended meeting key findings of the book, new challenges and a roadmap was presented. This book gives us an opportunity to assess 10 year of campaign action and its impact on air quality in Delhi, understand the growing scale and deepening of the air pollution crisis nation-wide and in Asia, undertake rigorous review of the international experiences with vehicular pollution control and the emerging pollution challenges.

Media response to the book was overwhelming as book stayed in the media for 12 consecutive days after the book release in Delhi. There were more than 60 news clippings on the book within a couple of weeks of the release in the national, regional and international reportage. In addition to this, Indian air quality regulators also showed interest in the book. Some state pollution control boards from Gujarat, Tamil Nadu and Delhi transport department placed bulk orders. The book was also released in a public meeting in Mumbai organised jointly by CSE and the Maharashtra Pollution Control Board on May 19, 2006. This meeting drew cross section of experts, regulators, academia, people and media and gave an opportunity for a good policy debate. At the



release meeting the Principal Secretary, Environment, Government of Maharashtra announced that two health impact studies on air pollution would be initiated in Mumbai and Pune.

Last year we prioritised areas of interventions including, i) leapfrog measures to improve vehicle technology and fuel quality, ii) addressing the special challenge of dieselisation, iii) building of public transport agenda and travel demand management measures to reduce automobile dependency and car numbers, and iv) improving fuel efficiency of vehicles and reducing energy impacts of motorisation through mobility management measures.

Augmentation of public transport system in Delhi was one of the main focuses of our campaign last year. We intervened in the plans prepared by the Delhi government for implementation of the high capacity bus system (HCBS) in Delhi, which works on the principle of dedicated and segregated bus lanes for smooth and unhampered movement of buses. There had been considerable opposition to this system. CSE helped to coordinate research and investigation on this new mode of transport and found that this system can achieve efficiency comparable to that of a metro system but at a much smaller costs. To break resistance, CSE conducted a traffic survey on one segment of the proposed cor-

ridor and showed that buses and bicycles transport nearly 85% of the people even while occupying only 25% of the road space. CSE helped to create pressure for promotion of public transport versus private cars, which transport few people even while hogging road space. The survey findings helped to overcome opposition and speed up the construction process. The progress of the corridor is now being monitored.

One of the key measures to discourage the increase in cars is through parki8ng regulation. A policy was framed in 2005 and CSE has been helping the Environment Pollution (Prevention and Control) Authority (EPCA) to monitor the implementation of the policy. We undertook a study to identify the challenges in decongesting the commercial centres in Delhi and presented the findings of the study at a roundtable of experts and officials of civic and development agencies. The aim is to frame a parking policy that will catalyse commuters to favour the use of public transport over the car.

The Right to Clean Air team supports the efforts of EPCA to monitor and improve action plans to control air pollution in eight cities of India. These include Ahmedabad, Kanpur, Lucknow, Chennai, Bangalore, Hyderabad, Solapur, and Pune. In September 2006, we helped organise a review meeting of all cities and analyse the action plans and progress. The assessment showed that although

strategies and approaches are common, the constraints and barriers are unique to each of these cities and therefore, the action framework must be based on a case-by-case approach.

For our campaign on energy efficient transportation during the year the team researched the linkage between growing number of vehicles and energy security. We concluded from an analysis of the recent trends in car numbers, shift towards bigger cars will result in increased fuel/energy consumption. The new CSE study (published as a cover story *Space Jam*) shows that state-sponsored car boom, without concurrent efforts to make cars more fuel-efficient will lead to an energy crisis that the country cannot afford. The team has come up with possible fiscal measures that can promote fuel economy, advanced technologies like hybrid electric vehicles etc.

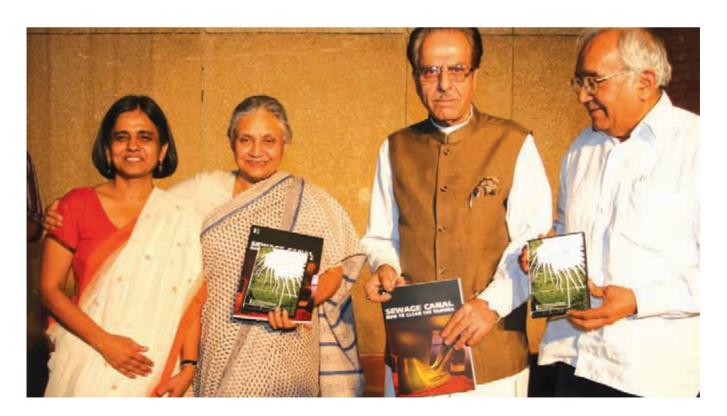
The team has been involved in the regional dialogue on clean air issues with South Asian cities. We interacted with the Clean Air Sri Lanka group to ban the use of two-stroke three-wheelers. In Pakistan we supported advocacy groups for implementing and strategising measures to reduce air pollution in Lahore and Karachi. The Lahore High Court Judge Justice Hamid Ali Shah has issued a momentous judgment while hearing a public interest petition on air pollution that issues guidelines and an action

plan to control air pollution in Lahore. We were informed that CSE's contribution has been mentioned even in the judgment. This is a significant development as in many ways as this is the beginning of air quality management in Pakistan which until recently did not have air quality standards or even mass emissions standards.

WATER PROGRAMMES

We published the Dying Wisdom in 1997 and organised a national conference on water harvesting in 1998. We published the boo, Making Water Everybody's business in 2001. Since then we have been research and writing; creating awareness through wide dissemination; advocating policy change by engaging with policy makers and government officials; building capacity through training programmes; and, catalysing replication through building model projects so people can see, learn and duplicate.

In the past year we expanded the area of research to understand issues of urban water management, looking at how cities manage their water and waste and how sewage can be managed so rivers can be kept clean. We also revived our work on looking at the linkages between good natural resource management, start-



ing with water, and poverty alleviation. At the same time our work on urban rainwater harvesting continued.

RIVER POLLUTION CAMPAIGN

With growing urbanisation and industralisation today the India faces the challenge of treating the waste but also to provide clean and safe drinking water. As more and more rivers are getting polluted, the municipalities are finding it difficult to treat river water to safe levels and supply it to the citizens. The river cleaning strategies in India are biased towards water intensive and expensive unsustainable sewage hardware for domestic waste collection and treatment. However these strategies inadequately address the root cause of pollution and the rivers run dirty despite huge investments. Despite the failures government still promotes conventional sewer-STP paradigm, which are expensive, and water intensive.

The river pollution team through its research in the two years has laid some foundation for this campaign. During 2006-2007, the team completed the book Sewage canal: How to clean the Yamuna highlighting reasons for failures of the river action plans and the alternate paradigm that is required to manage our rivers. the team visited, in addition to Delhi, towns upstream (Yamunanagar) and downstream (Mathura & Agra) along the river Yamuna In the towns visited we found that the water supply infrastructure was in shambles and in order to bridge the gap between demand and supply, civic authorities have been attempting to tap water sources located at great distances. Moreover, to deal with the municipal waste generated, centralized treatment facilities had been set-up over the years in the outskirts of the city where little sewage exists. Hence huge O&M costs are incurred for pumping and channeling the waste to these plants. The book aims to re-think and re-engineer solutions, not just for the Yamuna, but for all rivers in India.

The team is also researching on the extent of pollution and impact of river clean up programmes in other polluted rivers like Cooum and Adyar (Chennai), Musi (Hyderabad) and the sewage systems of Kolkata. Preliminary finding is that all across the country, the cities are funded to implement conventional sewage systems, which is inefficient and ineffective. These studies also cover the technology of waste water treatment being practised in the country in an effort to find alternate options.

The unit carried its research forward as the baselines for the 32



minute film Faecal Attraction: The political economy of defecation. For this, trips were made to the river, relocated slums dweller settlements and several other colonies in Delhi. The team also got footage from Varanasi and Agra.

These two products were released in Delhi at a meeting attended by the Chief Minister of Delhi as well as the Union Minister of Water Resources. The meeting served to catalyse public interest in the issue and several other civil society groups have taken up the issue of cleaning up the river.

Over the year the unit has closely followed two cases in the Supreme Court: Writ petition No.725/94 'And quiet flows Mailee Yamuna' and Writ Petition No.914/96 filed by resident welfare associate sector 14 Noida. Sunita Narain, Director of CSE, was appointed as a member to the Apex Committee. The unit has also been working through the Environment Pollution (prevention and control) Authority on pollution issues.

CITY WATER-WASTE MANAGEMENT PROGRAMME

The City Water-Waste management programme started taking shape from November 2005. The overarching theme of our research pertains to urban South Asia – and focuses on the city itself – its water supply and waste management scenario. This research is to develop and generate an in-depth understanding for our cities – the people and planners. For instance, how realistically can water demand be calculated so that it effectively reflects the actual water to be supplied to the population, how to do away with the colossal amount of water lost as leakages, how



to restructure a better pricing system, how to manage sewage better and more cost-effectively.

The direction and impetus of solving urban water problems had been ad hoc and disjointed reflecting a serious lack of awareness of the crucial inter-linkages of different aspects of urban water issues as well as the close links between these issues and the rural situation. Our research attempts to highlight this glaring disconnect and aims to understand and establish the lost links between urban water use and abuse and the ever-widening rural-urban divide by comprehending the urban ecology first. Through our citybased research, an attempt is made to help the governments take a more incisive and comprehensive look at the deepening water crisis in urban South Asia – both quantity and quality wise. In fact, the growing urban water shortages and the mounting pollution of water sources further limiting the scope of water availability, is one major imperative that had impelled us to look into urban water issues and work out viable alternatives with a determination and a commitment to change and sustain that change.

The research started with a preliminary scoping study where we had to chalk out a basic survey format or pro forma before we embarked on the actual survey of the individual cities. Framing of the survey sheet questions helped us develop a better idea of the issues to be covered and how. To collect the information on the individual cities, we had to involve volunteers, to venture out and collect information from the city municipal or water supply agencies and feed it in the questionnaire format. To generate interest, we created a web-based water and excreta network where volunteers expressed their interests in carrying out the survey. We were smothered with an impressive array of response from volunteers from all parts of the country and

beyond. About 208 volunteers representing various Indian cities participated in this web-based research activity. The volunteers based their survey on the questionnaire supplied to them by us, and they had to meet various government agencies related to water supply and sewage/sanitation issues and had sent us the completed questionnaire along with maps of the respective cities. The initiative to map the water-excreta story of our cities had invited wide ranging interests from professors, researchers. journalists, surgeons, engineers, NGOs and students. The interest pervaded to other countries as well and we have volunteers participating in the water-excreta research network from countries like USA and UK. However, all 208 volunteers did not get involved in reality with our research due to snags like difficulty with access to information and lack of financial incentives. We got fairly good response and towards the end, the number of cities enrolled in our list increased to 72. We also took part in the primary data collection process and covered few cities like Agra, Faridabad, Yamunanagar, Bangalore, Rajkot, Dehradun, Alwar, Aizawl and Musoorie). We also had to search for volunteers specific to some important cities which went uncovered. For these missing cities like Jodhpur and Solapur, we had to use the CSE volunteer database.

All 72 cities were classified as per their population strength in metropolises, class I, class II and III types. After completion of the survey, (6 months) we had spent another 2-3 months in reevaluating the results so garnered by the volunteers. This particular exercise was interesting but slightly protracted as we had to send our queries to our volunteers who corresponded back with the verified answers to the same. We also had to make phone calls to the municipalities to clear any doubt with the data provided to us in the questionnaire survey. The next step was to verify the information further by comparing it with latest studies and reports from government organisations like National Institute of Urban Affairs (NIUA), Central Pollution Control Board and Central Public Health and Environmental Engineering Organisation (CPHEEO), as well as the websites of the city water agencies. The collation and compilation of data from various sources helped us generate a datasheet on each city related to issues like problems experienced by the municipal agencies in estimating water demand, leakage loss, water economics, drinking water treatment capacity, sewage generation by slums and city population, sewage treatment capacity, investments made on infrastructure over time, etc. Maps were an indispensable part of our research and for generation of the same, we also involved volunteers who were given some incentives for their work. The

city-based maps illustrate the water-excreta interconnected issues pertaining to each.

The purpose of this research is to find out how each city performs with regard to managing its water and how it treats and/or disposes its waste. With regard to our research objectives, we had analysed the ground situation prevailing in each of the 72 cities with suggestions in terms of rainwater harvesting, efficient water management, wastewater recycling and reuse options. This research titled — 'Water and Excreta Tale of Indian Cities' — would be published in the form of a volume and also in the web. Our ultimate aim is to disseminate the above mentioned research output on urban water and waste profiles through AAGC Training programmes and public awareness generation workshops targeting individual cities. Discourses at city-based workshops, training programmes and policy dialogues, would highlight the impending crisis and generate solutions to avert the same with participation from city planners, NGOs and other stakeholders.

NATURAL RESOURCE MANAGEMENT AND LIVELIHOOD PROGRAMME

The work on linkages between natural resource management and poverty and livelihoods was revived in August 2006. A separate unit was formed with the objective of demonstrating the linkages between environment and poverty in South Asian con-

text and to push for policy changes to factor this into mainstream governance. Though CSE has been actively advocating this issue for long, we wanted to undertake this work in a focused and consistent manner. The issue has taken on an urgency given the fact that rural India, and rural South Asia in general, is in deep distress. India government enacted the National Rural Employment Guarantee Act in February 2005. CSE sees this as an opportunity to push for policies that would mainstream the concept of good natural resource management as a way to deal with rural poverty.

The key objectives of the unit are to research and disseminate environment-poverty linkages, to monitor the development effectiveness of rural development programmes like the NREGA for building rural assets, to undertake policy advocacy for change in government policies. The first year was used to interact with groups and individuals working on similar issues, brief the media on poverty issues and to travel extensively to backward districts to understand the nature of poverty

We started with a research on the country's 200 most backward districts, current focus of all anti-poverty schemes. The research involved collation of socio-economic data for all the districts (state of agriculture, land, irrigation, forest etc) and juxtaposing this with state of implementation of the NREGA in these districts. This will not only provide information to those working on the



issue but also help us in our task of monitoring the effectiveness of NREGA in these districts.

To create an informed public opinion on the development effectiveness of NREGA, and other development schemes, we organized two regional media briefing workshops in Hyderabad and Ranchi. Around 50 senior media persons representing 20 newspapers and television channels attended these workshops. These workshops also involved field trips to districts where NREGA is being implemented so that the media can see for themselves the state of NREGA implementation. This was followed by a programme of media fellowship under which 10 media fellowships were awarded to study 10 districts in 9 states on specified theme or aspect of NREGA.

The team in consultation with an internal peer groups decided that our policy research on NREGA would focus on creation of productive assets creation and the process of village planning mandated under the scheme. Participatory planning at the village level is crucial for required impacts. So, we are now preparing a briefing paper on NREGA that will chart out ways to make it effective. At the same time, we are in process of conducting a university student's survey of NREGA in 10 states in order to get a sense of what exactly is the development impact of NREGA, This process will also involve local university students in local development.

Another major activity that was initiated is to conduct briefing workshops on sustainable village development using ecology as the axis for poverty reduction. This is being targeted as local development NGOs, policy makers and students to gain perspectives on rural development.

Based on these activities, we have redrafted our plan for the next year. Most of these activities have begun or just beginning and they will be taken forward in the coming year. An internal meeting debated our lessons in the last eight months. The feedbacks are greatly helping us in having a new focused and clear plan for the next year.

THE URBAN RAINWATER HARVESTING PROGRAMME

CSE's urban water harvesting programme can be traced back to the need to be able to tell people how to do rainwater harvesting. Therefore, we began with constructing a rainwater harvesting system in CSE, going on build in many other institutions and residential buildings. The success from these projects wanted us to reach out to many more people and we started regular technical advice, training workshops aided with technical manuals. Last year we continued these activities.

Building capacities to undertake rainwater harvesting programme was the main objective for the year. The team planned to undertake state-specific training programmes in the three states of Madhya Pradesh (MP), Rajasthan and Kerala. Of these, we could undertake only the MP training programmes. The reason was that these programmes were planned under specific funding which did not come through for the other states. In MP, the participation was over 250 engineers from all districts. What we have learnt is that when we are undertaking such state-specific activity, they need to be followed up regularly with more programmes addressing a wide array of interest groups, so that interest is created across all segments of society. We hope to undertake further programmes in MP this year. This year, we have received a request from Gurgaon district for training their engineers.

Another specific group that we targeted was the actual implementers of the rain water harvesting systems, the plumbers and masons: Two workshops were completed as scheduled. What we learnt was that it is extremely difficult to get attendance when we are dealing with the unorganised sector. We have decided that in future, we need to tie up with other groups – corporates, NGOs, government—who can mobilise this target group.

We also conducted workshops for amore general audience. Between Oct 2006 and March 2007, four training programmes were conducted for a total of 78 persons. This created a huge resource base in the field as we trained policy makers, government officials, bureaucrats, industry and NGO representatives, consultants, students and interested citizens. For instance, N S Associates of Mamba are currently handling more than 40 pro-P S Ramakrishna, is handling a major project of Maharashtra government of rainwater harvesting on highway apart from several other small projects for societies. Harjinder Pal Singh, participant has three projects in hand and Virk Harpret Singh, another participant has got ten projects from the government of Punjab. Gayatri has informed that she is working for a three floors residential building. Sandeep Adhyapak a training programme participant has sent the unit details of 30 projects executed by him in and around Mumbai. Dr Suchandra Bardhan has informed us that she has designed rainwater harvesting for



several projects and also implemented in her own residence in Kolkata. Sonia Gupta, also from Kolkata, has been working on three projects of rainwater harvesting, one of them in Africa and others in slums.

The Chief Minister has constituted an award for the Best Rain water harvesting projects and this year, 4 of the 5 projects that were awarded were undertaken by CSE.

Understanding the lack of a consolidated database on the water harvesting projects implemented and their impact, we decided to create a national database of rainwater harvesting projects. Our experience is that even those who implement rainwater harvesting projects rarely understand the full significance of the project and do not maintain information about the system so that it can be effectively monitored. This project is ongoing

SUSTAINABLE INDUSTRIALISATION

After five sectoral ratings under the Green Rating Project in past ten years, it was a conscious decision to revamp the activities of the unit in 2006-07. We began the year by carefully

analysing and redefining the long term and short term objectives of the unit. The impacts and failures of the programme were also assessed to define the new programmes and prepare the activities for the year.

After much brainstorming within the unit as well as with other colleagues in the Centre, the plan was finalised which included launch of three new programmes. The long-term objective of the unit was also modified to address all the stakeholders of the unit – industry, regulators and community. During our self-assessment, we realised that we have always been successful in engaging our core stakeholder – the industry. However, our success in engaging the other two stakeholders – regulators and community – has been limited and sporadic. We therefore decided to formulate two new programmes specifically for these stakeholders.

We also realised that so far we had been concentrating on sectoral rating, which had helped us develop very good expertise. This work has also had good impacts. For instance, a team from ACC Cements visited CSE after the release of cement ratings in order to understand the rating process and the performance of their units. The company is now using the same rating methodology for tracking the environmental performance for all its



cement plants. This is an attempt by the company to improve its rating in the next round. However, due to the extensive nature of our rating programme, we had only rated few hundred of companies. It was also therefore decided to increase the scope of our reach by working on more cross-sectoral programmes.

Having defined our objectives and plan for the year, we started the regulators programme in 2006-07. We had several meetings with Central Pollution Control Board to tap in their expertise to help us develop the programme. A questionnaire was designed to collect information from the regulators. The practicality of the questionnaire was then tested, by trying it on Maharashtra and Gujarat Pollution Control Boards. Based on the reviews and feedback, the questionnaire was modified and sent to all the regulators. Continuous follow-up was done to collect information. Eight PCBs submitted their information, which is now being used to prepare a report on the regulatory regime of the country. Though the plan was to conduct a regulator's meet in this financial year, we realised that getting information from the PCB took more time than we had estimated.

The other programme, which we initiated, was the Community Service Centre project. The objective was to provide free consultancy service to the community for any industrial project and to help build their capacity to analyse Environmental Impact Assessment (EIA) reports. We conducted two training programmes on the Environmental Clearance Process and for analysing the EIA reports. The first training programme was conducted in August 2006 for which 189 nominations were received. Of these, 26 participants were selected after analysing their profiles with respect to the objective of the training programme. The training programme received a very positive feedback from the participants and the general response was that CSE should conduct similar training programme at grass-root level where more number of activist/grass-root NGOs could participate. The second EIA training programme was conducted in January 2007, which again received a very good response from regulators, academicians and grass-root NGOs. 32 participants were selected of which 20 were from NGOs and 12 were regulators from different pollution control boards.

CSE also launched the community support services programme. Vasundhara, a participant of the training programme from Orissa approached the team to help them in analysis of EIA report of the Utkal Alumina project. A technical analysis of EIA report of the refinery and the mining project was prepared and sent to Vasundhara, which used it to file a petition in the court. Based on CSE's report, the High Court of Orissa directed the Pollution Control Board to look into all the questions raised with regard to the environmental assessment for capacity of expansion of alumina refinery. Another grassroots organisation is also using the report to fight against the same project. The report prepared by CSE has been put up on the website of Environmental protection group of Orissa (http://www.freewebs.com/epgorissa/). Pravah, a grassroot organization in Gujarat, approached GRP for analysis of the EIA report of Rama Newsprints Papers Limited. The report prepared by CSE was used by the organisation to ask relevant questions during the public hearing process.

The other cross-cutting programme we began this year was on mining industry. It was decided to prepare a book on the status of mining in the country. A lot of work went into collecting information, analysing it and preparing the book. A major portion of this book is now completed and should be launched this year in a month or so.

It was consciously decided not to pursue any rating exercise during the year. Instead it was decided to learn from the different rating exercise we had done so far. We did begin an assimilating programme and developed a common questionnaire, which could be administered to any industry. However, we did not prepare any paper on the learnings, which was a drawback as it would have helped to prepare us for the future ratings. In the coming year, we once again are initiating a rating programme, and have tried incorporating the learnings from the previous exercise.

Overall, the year 2006-07 was very different. Though we did not do any rating, we diversified and initiated many new programmes. These programme are now being built up and are our core area of activities.

ANTI-TOXIN CAMPAIGN

The main focus of the toxins campaign has been to bring about concrete changes in the regulatory framework and the consequent legislations in the area. The tools that we used have been laboratory studies and policy studies and advocacy. Laboratory studies have been instrumental in empirically estimating the levels of contamination. Policy studies and advocacy have identified the loopholes in the laws and suggested means to correct these.

CSE's first study on pesticides in soft drinks had revealed the presence of high levels of residues in these products. We found

that this sector is completely unregulated and asked for setting regulations for such products so that the consumer can be assured that what s/he is consuming is safe. CSE had advocated that any regulation has to be based on certain established principles. This was important because these will be the first regulation for such foods in the country and would serve as an example for other regulations in the future. Unless regulations are based on sound logic and principles their replicability for other products will become difficult.

CSE's second study on soft drinks released in August last year gave a broader picture of contamination from all over the country. The main reason was to spur the process of setting regulations. Within the government two parallel processes were going on for setting standards. While CSE was part of the process under the Bureau of Indian Standards (BIS), it had also actively engaged in the other process of National Level Expert group under the ministry of health and family welfare.

In the BIS, CSE made detailed presentations and submissions before this committee on various issues like need for standards, absence of contamination in Indian sugar, testing methodology for soft drinks, regulating caffeine and pH and validating test methodologies. Based on these the BIS reached a conclusion in March 2006 and finalised the first ever standards for pesticide residues in carbonated beverages. Since then these standards, and all the related decisions, have been cleared by the Executive Council, the supreme body within the BIS. The BIS has to now val-



idate and notify a testing methodology and specify the certification and enforcement processes.

The health ministry had set up the Expert Group with Dr N K Ganguly, director general, Indian Council for Medical Research (ICMR) as its chairperson. Anbumani Ramadoss, the union health minister, had informed the Indian parliament in August 2006 that his ministry was waiting for the report of the Ganguly committee to notify standards for soft drinks. The committee held detailed deliberations and called upon CSE to make presentations at a meeting organised at ICMR in November 2006. CSE made detailed presentation on the various issues involved and also sent a detailed representation to Dr Ganguly shedding light on the key issues. In February 2007, the Ganguly panel submitted its final report mandating a final product standard for one part per billion for individual pesticide residues in soft drinks. The final report has been submitted to the health ministry, which is to soon expect to come out with final product standards for soft drinks.

Food Safety and Standards Act were passed by the Indian parliament last year. Before the passage of the Bill CSE made a presentation to the Parliamentary Standing Committee on Agriculture and recommended a number of changes to make it more safety oriented. The Standing committee took note of CSE's recommendations and they have been incorporated in final law. CSE had also demanded that, keeping in mind the health and safety basis of the new food law, the union health ministry should be entrusted with the job of implementing this law and not the Ministry of food processing as demanded by the food industry. The government has recently decided to make the health ministry as the nodal ministry for administering the new food law. CSE continues to be actively engaged in the process of formulating regulatory structure and rules for the new food law.

CSE has been advocating for major changes in the pesticide regulations system in the country. New pesticides were being registered for use in the country without any safety limits being set for them. The government was also not using the safety benchmark of acceptable daily intake (ADI) for regulating toxins. The government responded to CSE's findings through a series of modifications in the pesticide regulatory system. Now it has been made compulsory to establish a safety limit (maximum residue levels or MRL) before any pesticide is granted registration for use. The agriculture and health ministry also initiated a process to review all the existing MRLs. It is clear from minutes of various government meetings that the concept of ADI is now been taken into

consideration while regulating toxins. All this is happening for the first time ever in the country.

In response to CSE's findings the agriculture ministry also initiated a process to bring about amendments in the Insecticides Act of 1967. The ministry sent an official communiqué to CSE asking for its views on the changes required in the law. CSE made detailed representation to the ministry on this subject and submitted a blue print for reforming the pesticide/ toxins regulatory system. The Insecticides Act is currently in the process of being amended.

In the coming year the toxins team will, in addition to the ongoing engagements at various levels and forum, take up new studies and research. The record of the last year and plans for the coming year have been peer reviewed. The feedback has been incorporated in the annual plan for 2007-2008.

SCIENCE AND ENVIRONMENT REPORTAGE

India today is one of the dirtiest, most polluted and environmentally degraded countries of the world which is seeing a rapid decline in the quality of all its natural resources ranging from land and forests to water, air and biodiversity. Therefore, the need to record the process of development and its impact on environment is urgent and imperative.



Thus CSE's reportage team recorded the environmental happenings across the countryside: urban mayhem in Bangalore; the rural crisis in Maharashtra; the sly games played by the corporate sector to corner land; the oft-repeated tales of outbreaks of chikungunya and malaria; the resurgence of polio; the impact of the small but large polluter in the form of sponge iron plants; and



many others. The team also looked at the National Rural employment Guarantee Act as well as the National Urban Renewal Plan. Issues of toxins and food safety were covered as well as that of the searing debate on Bt cotton. Urban issues of mobility as relating to energy security were examined as well as the state of panchayati rai in rural areas.

The article on urban mayhem in Bangalore was taken note of by readers. IT employees were moved after reading the interview with a panchayat leader and they proposed to write to their HR department against massive land acquisition and claim they do not want fancy gyms, swimming pools etc by displacing poor farmers. The governor of Karnataka wrote to us saying he has raised the issue with the Chief Minister.

AID India Kolkatta Chapter offered free space in their website to put a *Down To Earth* subscription advertisement for six months as they think it should reach much more people who are not fully aware of environment-related issues.

CSE, together with the National Academy of Agricultural Sciences and the National Commission on Farmers, organised a roundtable on the issue of cotton in New Delhi on July 10, 2006. The meeting discussed various issues concerning cotton farmers in the country – from the state of agriculture, indebtedness, farmer suicides etc to research and inputs and the linkages of farmers to markets and the textile industry. The aim was to evolve a clear agenda for action on cotton so that proper policy can be created and the right decisions taken. The meeting was attended and addressed by top experts, regulators, bureaucrats and farmers' representatives.

The editorials published in the magazine, *Down To Earth*, received interesting comments from NGOs, politicians, diplomats and bureaucrats. 'Old Style corruption better' generated a lot of interesting comments from people like Montek Singh Ahluwalia, J G Krishnayya, Harry Van der Wulp, Abhijit Sen, Dr Mashelkar, Rahul Bajaj, Abjijit Sen, and Ashok Jhunjunwala. Another editorial, 'Want to be Fried' also received interesting comments from R. Ranganathan, Maneka Gandhi and Ashoke Chatterjee. Global Community Earth Government (GCEG) reprinted it in their newsletter.

Pesticide Action Network reprinted 'Want to be Fried' in their web newsletter, PANUPS, Amar Ujala, the Hindi news daily carried editorial on water management, Vasundhara, Orissa translated it into Oriya for wider circulation in the state. Mr Viney Gupta, Canadian High Commission, requested for permission to circulate this editorial among friends. M Dattatri Law & Taxation AT & S, requested to include this editorial in their newsletter. There were also several requests to reprint reports – magazines such as Appropriate Technology and Heritage-

Cartman, organisations such as Kalpavriksh, National council of Churches, Navachaitanya Publication, Planet 21, The Institution of Engineers and others. Mr Satish Bhavsar from Maharashtra wanted permission to translate the book Agenda Unlimited in Marathi.

As a consequence of regular reportage from Tripura, one of the largest retailers from Tripura has asked for a CSE franchise and *Down To Earth* copies. *Down To Earth* supported the Andaman Nicobar e-group by picking up an article that was posted in the e-group. It was published as a larger story with some detailed follow up. The e-group is happy that since this story *Thrown into high relief* is published in *Down To Earth*, it will ensure a wider reach of the concerns and issues of the islands.

FILMS AND TELEVISION PROGRAMME

CSE has produced a film on river pollution in India, Faecal attraction: The political economy of defecation, highlighting the status of Indian rivers, the failures of the current strategy to clean up the rivers and the interventions required to control pollution. Shooting of the film was carried out in Delhi, Agra, Varanasi and Kanpur. The film was released at India Habitat Centre at a public meeting, by the Chief Minister of Delhi, Sheila Dikshit and the Union Minister of Water Resources, Saifuddin Soz. The film has been selected in the official programme of this year's RODOS International Film Festival, which is scheduled from 19-24 June 2007 at Rodos.

Another film was produced as a training film on decentralised wastewater recycling. The documentary shows various decentralised methods in India highlighting the options for localized cost effective way of treating domestic wastewater. The shooting for the film was done in cities like Ujjain, Pune, Indore and Delhi.

ANIL AGARWAL GREEN CENTRE

The Anil Agarwal Green Centre (AAGC) was created to extend CSE's knowledge and experience in environment and development to diverse constituencies across India, South Asia and the developing world. It was conceived as a tool to directly influence environment-related policy and practices among diverse constituencies, and to share CSE's holistic understanding of the complexity, science and the politics of environment.



AAGC began with small, experimental steps. Starting with a 4-day training workshop on Library and Information Management that attracted a enthusiastic response, we learned that there is a dearth of structured learning opportunities on capacity-building in key aprogramme management areas, especially among the NGO community. The first few courses also showed us that people were eager to learn from CSE's knowledge and practical experiences; these courses did not impose much institutional strain.

CSE's initiatives on training and education are particulaly topical with the Supreme Court order that made environment a compulsary subject taught across all Undergraduate levels. The Court's move offers a particularly compelling opportunity for CSE to directly influence the curriculum, holistic perspectives and teaching approaches of environment among the crucial constituency of youth and college students.

However, the training and outreach activities are too small to achieve impact only through the number of courses and partici-

pants trained. Increasing the scale of training operations puts much pressure on the institution's time, energy and staff investment; energy which could easily be invested in other outreach, advocacy and dissemination media, such as publishing books, producing films or even running campaigns.

AAGC activities

Housed in a separate building adjacent to the CSE main office, AAGC has state-of-art training facilities. Training initiatives seek to build a constituency of committed environmentalists – from students, policy and decision-makers, lawyers, journalists, field-level practitioners, and civil society groups, including NGOs. Over the past three years, AAGC has conducted more than 50 short-term training programmes on natural resource management, policy workshops and capacity-building courses for more than 1000 participants from India and abroad.

The aim, institutionally, is to use the multi-disciplinary perspective and training initiatives to link CSE's experience, understanding

and knowledge in order to build the capacities of these powerful multipliers in society to bring about sustainable environmental policies and practices. Training programmes range from technical training workshops to build rainwater harvesting systems to workshops on undertaking research, communication and advocacy in the field on environment and development.

Among AAGC's most successful education initiatives is the month-long orientation programme conducted for students of The Centre for Development and the Environment (SUM), University of Oslo, Norway. Titled, Challenge of the Balance: Learning the practice of environmental management in India, it offers international students a first-hand experience of the myriad challenges facing the developing world. AAGC has conducted three programmes over the past three years.

Challenge of the Balance comprises classroom lectures, field visits, project work and discussions. Students are given an intense briefing on issues that are of concern to India and other developing countries. Field trips and meetings with communities serve to illustrate innovations that communities make to enable them to face the challenges of managing their natural resources base. Students undertake an intensive assignment at the end of the

course – so far, the batch of 2006 produced *The Outsider*, a special magazine entirely written, edited, designed and produced on their own, while the 2007 batch put together an online documentary comprising text, photo and video & audio clips to disprove former prime minister Indira Gandhi's famous lines uttered in 1972 at Stockholm, "Poverty is the biggest polluter".

Students attending Challenge of the Balance considered the programme as the most rewarding experience in their academic career. The accompanying faculty told us that the quality and depth of students' term papers was impressive, following the exposure they received with CSE in India. In fact, three students came back to CSE on their own initiative to work as interns on their Master's thesis. Last year's batch also brought out a magazine, Outsider, as part of their assignment. At a review meeting held at the University of Oslo, SUM director, Mr. Herstad presented the CSE course as among the more important and innovative of SUM's activities. The president of the University of Oslo praised the initaitive, saving that it served as a model for other courses. One student, who based her Master's thesis on her experiences in India, has been short-listed to receive the University of Oslo's best Master's thesis award.



This year, the overall goals of AAGC have been sharpened to maximise impact and outreach. From a focus on the number of courses conducted, attention has now shifted to targeted courses aimed at groups and professionals who can take and propagate the environmental message throughout society and governance and policy systems.

The plan for 2007-08 directly addresses these concerns. Besides conducting the *Challenge of the Balance* course for the University of Oslo students in March 2008, we have planned a total of 28 short-term (3-5 days each) carefully targetted courses on RWH; EIA; environmental communication; library, & information management; and city water and waste management, among others. In addition, a series of conceptual/policy-oriented courses have been planned — including air pollution strategies; food safety regulation; river polution; and poverty and livelihoods.

In addition to the short-term courses, a key programme of the college is a 3-month course aimed at students and the youth on environmental research, communication and advocacy. The course aims to teach the complexity, politics and science of environment through lectures, seminars, readings and field trips; and also build students' capacities and skills in research, communication and advocacy.

Although planned for more than two years, we were unable to launch this programme. The goal was to launch this course only after a series of introductory texts and other training materials were prepared – materials that were planned as a strong foundation on which to base the entire course. However, we realised that we did not have the institutional capacity to produce the high-quality benchmarks necessary to produce these materials.

Nevertheless, this year (2007-08), we felt it is imperative to launch the 3-month programme. The AAGC team is set to expand – adding administration staff as well as training faculty. Moreover, as a pilot programme, the 3-month course will test the abilities and institutional stamina in sustaining a relatively long programme — lessons learned will be useful in scaling up AAGC's training activities for the coming years, for a Certificate or a Diploma course in the following years. Training materials will comprise readings, research and factsheets culled and packaged from various sources, including *Down To Earth* magazine and other CSE publications.

MEDIA RESOURCE CENTRE

The key purpose behind setting up MRC is to build an informed and vibrant community of writers on environmental issues. The idea is to reach out to a large number of young media professionals across the country and in South Asia, to inform them, to stimulate them about current issues on environment and development, and to inspire and encourage them to write in a more informed and rigorous manner. An active network of writers, once built, will also help to bring information about changes in the environmental field from across the country to our attention.

Keeping this long-term objective in mind, the two-member unit has been working towards reaching out and interacting with media professionals and building their capacity through a carefully selected bouquet of activities and programmes, which include fellowships, briefing workshops and a feature service. Over the years, the unit has succeeded in developing a strong and committed network of media professionals who are keenly interested in issues of environment and development.

In the year 2006-07, the unit conducted a media fellowship programme — its sixth — on the National Rural Employment Guarantee Act (NREGA), in collaboration with CSE's NRML team. Ten senior journalists were selected from about 100 applicants from various parts of the country to study the implementation of the Act in as many districts.

The fellowship programme was preceded by two regional media briefing workshops on the subject in Hyderabad and Ranchi, which were attended by about 50 senior media persons representing 20 newspapers and television channels — some of whom later qualified for the fellowships. Part of the workshop at Ranchi was devoted to another emerging environmental challenge: the extremely polluting sponge iron industry. Both the workshops also involved field trips to relevant sites.

Among the other workshops, which the unit spearheaded in the year was one in Mumbai (on air quality issues), which was presented as a release function for the air pollution team's book, *The Leapfrog Factor*. It afforded an opportunity to discuss the issues of air quality relevant to the metropolis.

The team was also deeply involved in CSE's anti-toxins campaign following the release of the second report on pesticide residues in soft drinks; the report generated almost as much heat as



the first expose — and the media management which it necessitated took up a large part of the team's time and skills during those months.

The Feature Service, one of the regular activities of MRC, continued to make steady progress. Subscriptions for the year ranged around 250 news publications and agencies across the country, a majority of which were Hindi. The regional and vernacular media is emerging as a potent force in the country, and the unit's efforts have been to target its practitioners as much as possible.

The year also had its share of slips and misses, and some of the key omissions were the training programmes, the media alert service etc. The team had planned to work on a comprehensive and updated manual for a training programme on environmental journalism, but could not get down to doing it because of various reasons. The media alert service, popular when it was initiated, suffered because of the unit's preoccupation with other activities, which were higher in priority. Some of the earmarked (and additional) fellowships and workshops could not be done.

In 2007-08, MRC hopes to cover as much of this lost ground as

possible, besides revving up all its ongoing work. It has already collaborated with the Centre's Sustainable Industrialisation team to organise the First Anil Agarwal Dialogue on Mining, People and Environment. On schedule is a state-of-art publication on mining, a range of workshops and fellowships and a revived media alert service.

The programme for the media has been very effective in generating interest among media on environmental issues. For instance the response to the Fellowship on NREGA exceeded our expectations both in numbers as well as in quality. The media unit also conducted two very successful workshops on NREGA to catalyse interest among journalists.

ENVIRONMENT EDUCATION

The objective of CSE's environment education programme is to increase consciousness and awareness about environmental issues amongst students from the primary level to the college-level and to provide them an understanding of the linkages between environment and sustainable development. The aim is take environmental education beyond nature education.

The first few years of the programme was focssed on directly interacting with students. We realised that the programme can never have large impacts as we can only reach a few hundred students at the most. Therefore, in order to upscale the programme and increase the impacts, CSE developed the Green School programme. The programme is aims to catalyse educators, students and school managements to collectively take positive measures to improve their environmental performance. The programme has two components - a Green Schools' Manual, that enables schools to audit their performance in management of natural resources within their own premises and a training module for teachers, that provides step-by-step guidance on how to use the manual. The assessment process involves students and teachers, and is designed in a manner that fits in smoothly with the curriculum presently followed by the CBSE, ICSE and the other state boards. The aim of this rating is to understand what can be done to improve the schools performance on its environmental sustainability index and to implement these steps over the coming years. As the programme expands, a network of schools will begin to come together to use this manual so that there can be a comparative evaluation and a sharing of experiences of the best practices.

The main focus of the Environment Education Unit (EEU) last year was to assess how well schools are implementing the Green School Programme. Nwer components were added such as the Green Schools Network, Data Management System and Activity Sheets were the new components, which together with the Teachers' Traininigs strengthened the programme and built up the momentum for the Green Schools Award.

The Data Management System was developed to keep track of the reports submitted and the work done by schools. The schools could register online and submit reports online. Almost 100 schools registered within a month. Monthly Activity Sheets were introduced, which were resources for teachers to be used in their classes. The teachers could download the activity sheets and give it to students to be photocopied and worked on directly. The activity sheets became CSE's tool of regular engagement with the wide network of teachers. The issues of activity sheets were in line with the syllabus.

As our network of schools grew to about 2000, we launched a network of all the schools so that they could come together and share their experiences of doing the Green Schools Programme.

This resulted in regular network meetings of teachers atleast in the Delhi circuit. The response was good as the general attendance ranged between 125-175 teachers. Regular mailers to outstation schools and a few meetings kept the outstation network alive.

The Green Schools Award was launched and the ratings released in a ceremony on 27th November. Over 100 schools had submitted final reports for assessment out of which the top 20 schools were rated. Many schools had put up stalls at the event and a special photogallery was put up. The award was an acknowledgement of schools doing well and was meant to create interest in the academic community for them to emulate the other schools. Among the first three schools, two were from outside Delhi. The Government Senior Secondary School, Boormajra, Ropar, Punjab, topped the list, followed by Sholai School, Kodai Kanal. These two bore ample evidence to the fact that the programme had succeeded in cutting across all barriers—of distance, socio-economic background, or the size of the institutions.

The event was covered in news papers, including Trubune, Indian Express, Hindu and Jansatta. Excerpts were aired in AjTak and NDTV. The media in Punjab covered it widely, since the winner hailed from the state. The profile of the school and interviews with the concerned teachers and students were published in leading newspapers.

Professor Krishna Kumar, Director, NCERT, who was the Chief Guest in the award event, later wrote an editorial page article in The Hindu, highlighting the 'uniqueness' of the programme, say-



ing that 'this was the best school programme' he had attended in the entire year.

The exercise provided us many lessons and response of the schools was so great that the unit has decided to upscale this work considerably in the coming years. The discussions at the annual peer group meeting showed that there was a need to go beyond conducting workshops to work towards a larger objective of influencing teachers and educators through a long-term networking forum.

Gobar Times, the main dissemination tool for the unit was redesigned during the year. New pages on subjects and their relation with environment were added churning into 'History and You', 'Physics and you', 'Law and you' and others. The 'Green Schools' pages reporting on innovative environment education activities in schools were added. They turned to be key to the outreach of the Green Schools Programme. The 'Fundung' cartoon feature was also added to Gobar Times. However, the team feedback about Gobar Times revealed that we need to start more interactive pages perhaps some competitions in the new year. Some crosswords etc have thus, been introduced, which are proving to be successful and we have got numerous responses.

The discussions over the years performance pointed towards the fact that we need to make the Green Schools Programme more inclusive of pan –India rural situations and hence need to make changes in the GSP Manual- include a few more sections relevant to rural India and include information on collection of data. The training programme also needs to be strengthened. As the programme has major constituencies from the northern India, especially Delhi, it has been planned to improve networking to make it reach all parts of India. Since, a lot of people came to know about it from the web, the website also needs to be revamped.

ENVIRONMENT PORTAL

For a knowledge-based organisation like CSE, information collection and documentation has been structured to propel and support the centre's research and advocacy activities. Hence so far, the unit's resources have been developed, primarily to meet organisation's core programme's information requirements. But last year, we reframed our objective to focus on web-based information dissemination and outreach. Therefore, the team, even



without giving up the old focus on print materials, began to build a collection of digital books, studies, reports, articles, research papers, newsclippings and photographs.

A significant event for the team was the shifting of the library to the new building. With this in mind, the team first undertook a series of activities to help in the shifting which included complete stock taking and developing an inventory of books, documents, journals, photographs, films, bar coding of books, and preparing dossiers.

But the main part of the team's focus was on undertaking activities to meet the objective of online information dissemination through the CSE knowledge portal on environment. The library software was upgraded to enable CSE to do this and the team worked to develop a digital archive of documents and articles.

The team has been involved in building capacities on information management for the past 3 years and this activity was continued. Information managers from 70 organisations were trained in three short-term courses conducted in August, November 2006 and March 2007. The applicants and participants in these courses included professionals from organisations from India and other countries like Indonesia, Nepal, West Indies, and Malaysia. These participants have sent us feedback on how they find the programme useful. For instance, the NGO Forum for Urban Water and Sanitation, Kathmandu introduced library indexing system, does newspaper clipping indexing and brings out a clipping compilation as an outcome of the CSE training programme. They also found the session on information marketing was extremely use-



ful They would also like to invite CSE for conducting similar training programmes for their partners in Nepal. JRS, Indonesia has been able to prepare a thesaurus and has also begun indexing and key wording documents. ILEIA, Netherlands, another participant, was able to increase the hits on its website from 2000 per month to 38000. They have put the learning to good use and have leveraged their website to attract more visitors.

The Global Social Service Society, Delhi, put in systems learnt during the training programme. Nanda Talukdar Foundation, a well-known library in Assam has started preparation for a thesaurus and it is expected to be completed soon. Their archive of rare books has been digitalised. The Library and Information Services of Mahindra and Mahindra (Nasik) reviewed their plans for library automation and streamlined their work on "Project Granthagar", a multi-location library networking programme. The Ayurvedic Trust, Coimbatore said that as a follow up to the training, they have almost completed the process of selecting, verifying, compiling, and categorising the addresses that they had come across for the past 65 years. They feel the training was really worth the experience.

WEBSITE UNIT

The website unit reaches out to the public through the online medium. We create online products and services to support CSE's research and advocacy. In pursuit of a policy decision to increase the availability of key research on environment, the web team has been creating an ambitious online Knowledge Portal to disseminate environment, news, research and analysis on South Asia. This year we have been readying CSE databases to make them web accessible and creating designs of the portal. We have been working hard with our database vendor libsys to deliver appropriate software to make our databases web accessible, but there have been significant delays in this delivery, which have delayed the project. Prototype designs for the portal are ready, specifications have been set, a content management system has been selected and we are beginning the programming of the web interface to the data.

Along with the Knowledge Portal development we have been working to create a true web magazine user experience for the CSE websites and *Down To Earth* magazine.

Volunteer programme

Last year, volunteers contributed 3733 human days, which is equivalent to contribution in days of 15 regular employees (considering 250 working days in a year). There were over 540 registrations of which 12% of the registrations are from abroad, 60% from outside Delhi and the rest from Delhi. Nineteen volunteers joined us from other states of India while 17 volunteers and interns came from universities abroad this year. Volunteer–Intern usage by Programme Units has been 66% as against 34% by Support Units and CSE spent Rs. 3,06,930/- on volunteer's programme. Four volunteers were recruited as staff members by CSE during the year.

CSE conducted over 6 orientation sessions for volunteers during which they were informed about the history of CSE, the evolution of the various units and their ongoing activities, the rules and procedures and some information on different projects at CSE.

Many volunteers contributed articles for the magazine, *Down To Earth* while some others worked on more in-depth research. Aditya Wadhwa, intern with the Natural Resources Management and Livelihoods (NRML) unit, presented his study on devolution of powers to Panchayati Raj systems. Shivangi Sukumar, intern with the River Pollution unit, presented her finding on the river dispute cases filed in various states of India and Sarabjit Singh Butalia, from merchant navy, made a presentation on marine pollution.

CSE has also tied up with some institutions for regular volunteers. For instance, the All Jewish World Service (AJWS, USA) - has finalised placement of an intern for the 2007-08 session; Mount Holyoke College, Canada, after sending their first intern this year, has decided to send an intern every year depending on availability of suitable candidate; and, EWB (Engineers without border), UK has been sending 2-3 interns every year since 2004.

The volunteer contribution has been credible and useful from the perspective of both the intern as well as CSE. Given below are examples of the work done by volunteers:

 The water-excreta survey project, took help of the volunteers database to appoint more than 70 volunteers across India to compile the water-excreta scenario of India. This network has helped in fetching information in a very short span of time which otherwise would not have been possible. About 8 volunteers and interns have worked in the Delhi office to compile the huge information flow from various cities. The library has been able to bar code books and digitise all documents and journals with volunteer help continuously for more than 6 months.

- A freelance volunteer, Mohd. Arif and Naushad Ali remade the water-excreta maps of various cities, through AUTOCAD.
- Archit Sood, an architect, made the drawing of the wastewater recycle system of the AAGC building, as a freelance volunteer.
- Melanie Gault and Suparna Mukherjee, volunteers with EEU had helped in bringing out the monthly issue of GT, in absence of regular employees in that team.
- Mohd. Rashid, volunteer with RWH programme has constantly monitored water level in 21 model RWH projects, apart from other work related to waste water study.
- Ipsita Madan, student of McGill University, Canada, conducted an electrical audit of CSE buildings.
- Omkar Singh, Ritesh Ranjan and Rakesh Rana, volunteers in Marketing and database units have worked over the weekends and till late in the evening to compile database and mailers for all events in CSE.
- Sarabjit Butalia, a middle aged man from the merchant navy, has freelanced on mining research for Industry and Environment unit.
- Vijay Kumar, Dileep Kumar, Santosh Kumar and Sonia Kumari have extended great support in weeding out books and shifting the library, at a time when there was acute shortage of staff.

Programme Monitoring

The year has seen an overhaul in the monitoring system. We have moved from monitoring and tracking the activities that we had planned for ourselves, last year we started a system of setting clear objectives and monitoring to what extent we have achieved the objectives we had set for ourselves. So, the annual plan has been made for each unit, objective-wise. For each objective, activities are planned and determined who will be responsible, what will be the deadline and what will be the order of priority.

To all this, yet another dimension was added, that of measuring the impacts of our activities. There is a need to go beyond the task of ensuring timely execution of planned outputs. In order to do this, a system has been set up to identify the objectives of each person and each activity and then monitor to what extent have the objectives been met.

To do this, CSE set a system to identify indicators for each kind of activity. These indicators have now been built into the programme so that each person will now report not only what has been achieved and when but also what has been the impact. The impact indicators have been drawn up so that the impact of the activities of each person, each team and the organisation as a whole can be monitored. The following reports will be generated:

- Impact of activities: what impact is which programme/staff having?
- Impact of team: what impact has the work of the team had?
- Meeting objectives: a six-monthly assessment of our work in meeting the objectives we have set.

The next task was to set a system to collect information on the impacts of CSE's work. As CSE is not in the business of building schools or planting trees, but in the business of creating awareness, influencing opinions and changing policies, measuring the impact of its activities has never been easy. Impact has come in a number of ways: letters from people appreciating its work and talking about the actions they have taken in response to CSE's work; newspaper reports; permission to reprint or use CSE reports in many ways and other such impacts.

The first task is to standardise the impacts for the different kinds of work that CSE does — website hits, web discussions, newspaper clippings, letters to government actions taken, PILs filed, questions in parliament, or the number of books sold, revenue obtained or number of people attending workshops etc. The second step has been to formalise the process of sourcing this information from the different units. Thus, in addition to the different staff members bringing in information about their impacts, the library, the web and the database units will also send in information about impacts. Finally, it is not enough to monitor, but the entire organisation should get to know about the impacts thus catalysing and motivating each person to perform better. CSE has set up a system to compile and collate information on impacts and disseminating it to all staff members every fortnight in the form of a newsletter.

The Impact Watch newsletter has been reaching each and every staff member so the organisation, as a whole, is kept informed of the impact of its activities.

Financial performance

The bulk of funds for the organisation came as programme

grants from donors. CSE received a total grant income of Rs. 744 lakh, earned Rs. 82 lakh from the sale of its products and earned Rs. 106 lakh as interest income. CSE's core fund (corpus + own fund) stands at Rs. 19 crore. Of the total of Rs. 82 lakh that CSE generated, Rs. 29 lakh is from training activities. Of this, Rs. 20 lakh came from the training fee for Oslo University students. Therefore, there is a need to develop strategies to increase the income from training activity.

In terms of expenditure, the maximum expenditure was on awareness creation and information dissemination activities (Rs. 191 lakh) followed by expenditure on research and advocacy (Rs. 182 lakh). Over the year, CSE spent Rs. 50 lakh on assets, which was mainly for equipment such as computers, LCD projector, communication systems and for furniture, fixtures and furnishings.

Participation in meetings, partnerships

Anumita Roy Chowdhury was a member of the working group on air pollution control set up by the ministry of environment and forests for the 11^{th} plan. She made presentations in two dialogue sessions in the third World Urban Forum in Vancouver and in six dialogue sessions in the fourth Earth Dialogue, a world forum for resource management and sustainable development, in Brisbane. She also participated in the annual meeting of the International Council on Clean transportation in Chantilly, France, in October 2006.

She also participated in a panel discussion in international conference Asian Vehicle Emission Control Conference (AVECC) 2006 in Jaipur. She participated and presented in Better Air Quality conference organised by the Clean Air Initiative of Asian Cities held in Yogyakarta, Indonesia. CSE staff gave a public lecture on air pollution challenges organised by the Toxics link in Delhi in December and made a presentation in a seminar organised by international Transportation Development programme (ITDP) as past of the Indian Social Forum. Anumita Roy Chowdhury made presentation in the seminar organised by the Italian Ministry of Environment, Land and Sea (IMELS) and the Embassy of Italy in New Delhi.

The Right to Clean Air campaign team wrote to the union minister of petroleum and natural gas of the Indonesian government saying that Indonesia which has just become totally lead free must avoid use of this cheap and toxic octane enhancer. The deputy environment minister of Indonesia and other officials

reviewed the information sent by CSE and a decision was taken not to allow MMT.

The Green Rating unit organised a workshop in collaboration with Mine Labours Protection Committee (MLPC) on small-scale mining. The workshop was attended by grass-root activists working on mining. A panel of government officials from the Hunan province of China visited CSE and met with team members to discuss the issues involved in forestry and paper industry in India

The Global Reporting Initiative (GRI), Amsterdam has included a team member of the unit as a working group member for preparing a sector guideline for power utilities. ion:

Green Rating Project finds a place in the Gujarat pollution Control Board's (GPCB) Vision document. Under tools for better waste management, Green Rating has been placed along with ISO 14001, OSHA 18001 and listed under new initiatives for recognition of better performing industrial units.

CSE's water team was requested by Assistant District Magistrate, Gurgaon to organise a training programme for 200 engineers of Gurgaon and sought CSE's help in setting up Rainwater Harvesting Cell. CSE, as part of the EPCA, worked to find solutions for the cleaning up of Yamuna and has contributed to research in order to inform the court on several cases concerning the river.

CSE director, Sunita Narain, was nominated as a member of the Advisory council at The Comptroller and Auditor General of India. She was also nominated as Committee member of the working group on consumer protection of the planning Commission and chairperson of a subcommittee of the 'Artificial Recharge of Groundwater Advisory Council'.

Mr. Jacques Chirac, President of France invited Sunita Narain to attend the meeting "Citizens of the Earth" at the Paris Conference for Global Ecological Governance. A delegation from Chicago Council on Global Affairs Leadership Study Mission to India visited Delhi and Sunita Narain made a presentation on India's progress and challenges in protecting the environment. She also delivered the keynote address at Swedish Environmental Secretariat for Asia Retreat in Luang Prabang Laos on the 'Role of Civil Society in Preventing the Spread of Hazardous Chemicals'.

