

# **Annual Report**

## **2013-2014**

**CEE**

Centre for Environment Education

Nehru Foundation for Development, Ahmedabad

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Government of India



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## Introduction

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During the year, CEE continued being involved in major programmes with the Government of India, and in national thrust areas. Its programs during the year touched on waste management, mining, issues of industry and climate change, urban issues, and pollution. The cloud-burst of Uttarkashi was the focus of the post-disaster rehabilitation.

CEE's work in developing innovative solutions, both, through its own efforts as well as those of NGOs, continued during the year. CEE also conducted a discussion on India's energy future, by ideating on the German 'Energiewende' concept and its applicability as a possible way towards a low-carbon society.

A number of International programs focused on capacity-building, including a program in Afghanistan, were the highlights of the year.

### **Some of the key programs are**

The National Ganga River Basin Authority (NGRBA), Government of India, and the National Mission Clean Ganga (NMCG), with financial assistance from the World Bank, have agreed to support the phase II of the Ganges river dolphin – conservation education programme, the plan for which was submitted by CEE North. Under the second phase, the programme will be extended to the schools of Ganga Basin and also of working with the riverside community.

The Waste Management group at CEE Kolkata facilitated the Paryavaran Mitra Puraskar 2013 across the state, wherein during the reporting period, a 3 day teacher

training programme was conducted at Kurseong, North Bengal, and the topics of sustainability and its linkage to EE, waste management, biodiversity and other related aspects were addressed.

CEE, with support from the Ministry of Environment, Forests & Climate Change (MoEF&CC), and in collaboration with the National Institute of Urban Affairs (NIUA) and GIZ, organized a day long national workshop on capacity development in e-waste management, wherein the focus was to map the lacunae in existing capacity building efforts in the area of e-waste management and to assess needs to develop resource materials such as training modules, IEC materials, dedicated portals etc. to address the gap.

As a first step towards evolving an initiative to strengthen Green Federalism in Urban India, CEE took up a two-month activity in November and December 2013 to help develop the long-term initiative. CEE organized the 'Participatory Urban Governance Workshop for Experience Sharing, Reflection and Action Planning', with support from Hanns Seidel Foundation, Delhi, and technical inputs from Yashada and the Alternatives Forum, Pune.

CEE's Sustainable Business and Climate Change (SBCC) Group submitted the report on the first-of-its-kind study aimed at integrating development concerns in a climate modeling framework. The study, which was developed with a group of NGOs and Institutions from India and Germany, developed a visionary development scenario till 2050, based on meeting a development threshold that accounts for human well-being indicators.

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CEE Himalaya focused on various programmes including the rehabilitation of the flood-affected in the Uttarkashi cloud burst, flash floods and landslide, and the relief distribution for Uttarakhand Disaster sufferers. CEE's program 'Umang-Joy of Learning' provided psycho social care and support for children, in nearly 50 schools, orienting 7000 students and 650 teachers till the month of January. Team CEE also distributed 2000 school bag kits and conducted 50 disaster preparedness wall writings at different places in Uttarkashi.

CEE Himalaya and The Third Pole (a Delhi based media NGO) jointly initiated working on the CCD-SDC project to sensitize the media on the issue of climate change and development, especially in the Himalayan context, and orient them as to how effective reporting, case studies covered by the media on climate change and sustainable development for mountain communities can positively impact people in generating a better response towards adapting to adverse impacts of climate change and rapid environmental degradation.

CEE was asked by the MoEF&CC to prepare the baseline report and the suggested SDGs as part of the discussion papers to support the India negotiation team in the Open Working Group of the General Assembly of the United Nations. CEE teams worked on the 14 thematic areas identified by MoEF&CC to prepare a report. The report included an India baseline, a review of global efforts, an analysis of SDGs vis-a-vis the MDGs and Suggested SDGs in each of the thematic areas.

The project 'Energiewende: Discussing an Indian Energy Transition', aimed at introducing the concept of the policy toolset of the German Energiewende as one possible

way towards a low-carbon society, started in September 2013. During the second phase from January to April 2014, the background paper was finalised for distribution at the Energiewende Roundtable Discussions events; and five roundtable discussions were conducted in Kolkata, Bangalore, Pune, Ahmedabad and Delhi, during the period 24th February to 7th March, 2014.

An interpretation centre themed around a Tiger's life and habitat – 'Home of the Tiger' - was conceptualized, designed and installed at Jashipur, near the Similipal Tiger Reserve in Odisha. The CMU also developed a bilingual (English and Hindi) interactive touchscreen for the Nature Interpretation Centre of Sukhna Lake in Chandigarh. The touchscreen is to help inform visitors the importance of wetlands, conservation and ecological values of the Sukhna lake. The Interpretation Centre built at Chilika Lagoon, Odisha by CEE is being revamped and is currently in the installation stage.

In July 2013, the Anandshala project was launched with the support of a UK based NGO, Reach to Teach. The project, which was developed by the Rural Programmes Group of CEE in 2002, this time goes beyond the school and draws its foundation from the Right to Education Act.

Activities in the programme wherein CEE has partnered with Nokia India, and UMCPL as associate partner, to engage 100 schools of Ahmedabad in project-based learning, started in December 2013 with a training workshop for teachers from 17 schools of Ahmedabad. As an action plan emerging out of this workshop, teachers along with their students undertook a research project on e-waste.

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The COMDEKS (Community Development and Knowledge Management for the Satoyama Initiative), a Japanese funded programme to support Landscapes management in Uttarakhand became operational in June 2013 with a funding of US \$255,000. Six proposals were approved in Uttarakhand to support three types of landscapes spanning from lower, middle to higher mountainous terrains aiming directly at the expected outcomes listed in the Landscape Strategy that was developed. All the projects became operational from July 2013.

An innovative poster was developed for the MoEF&CC, as a part of India's celebrations of the International Day for Biodiversity. The poster on 'Water and Biodiversity' was designed to depict a snapshot of how all life forms on the Earth, including human beings, are connected by water.

CEE Goa submitted the final report on the two-year research project on "Assessing Quality of Environmental Impact Assessment (EIA), Compliance of Environmental Clearance (EC) Conditions and Adequacy of Environmental Management Plan (EMP) of Mining Industry in Goa, in January 2014. CEE submitted the report to the Department of Science, Technology and Environment (DSTE), with complete assessment and recommendations to improve the EIA development process, compliance of EC conditions and effective Environmental Management Plans for the mining industry.

CEE initiated on the development of a pilot at Mundra, Kutch, with support from Adani Ports SEZ Ltd. The initiative will involve creating stakeholder engagement, creating network of colleges and building capacity of community to independently monitor

performance of industry and region on the human and sustainable development indices.

The Information Management, Education and Communication (IEC) for Maharashtra Gene Bank Project, initiated in 2013, aims at community based studies and conservation of genetic resources of traditional varieties of crops, domesticated animals, marine and forest based resources, grassland and fresh water ecosystems in the state. The project is supported by Rajiv Gandhi Science and Technology Commission, Government of Maharashtra and is coordinated by IISER, Pune.

The program "Development of Medicinal Plants Gardens in Schools and Colleges of New Delhi" 2013-16, is a joint initiative of the National Medicinal Plant Board, Ministry of Health & Family Welfare, Government of India and CEE. The program, which targets 300 schools and colleges of New Delhi, is focused at ensuring sustainable practices for use and conservation of Medicinal Plants Gardens by partnering with schools.

CEE has started working on the magazine 'Environmental Action', wherein it is working closely with the Gujarat Pollution Control Board towards bringing out success stories on good practises in resource conservation, resource recovery, and pollution control and prevention. The magazine has contributions from scientists and officers from GPCB and CEE along with industry representatives.

CEE North organized a series of environment related events with National Green Corps (NGC) schools in Uttar Pradesh, beginning with a Paryavaran Mela in June 2013, observation of Ground Water Week in July 2013, plantation drive in Lucknow, Teachers'

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Training Workshop across 6 locations in the State, a PCRA competition at 6 locations in the State during September and October 2013, a programme on the occasion of World Wetlands Day in February 2014, and a state level Paryavaran Mitra Puraskar ceremony in March 2014.

A 32-page, four colour annual issue of the Education for Change, the ENVIS newsletter for environmental education, was brought out for the year 2013-14. The newsletter covered various articles on EE and ESD.

An International Workshop on ESD Rice was organised in Ayutthaya, Thailand, during December 16-19, 2013 in which representatives from Coordinating Institutions and participating schools from the six countries participated. CEE is the Coordinating Institution in India for this programme which is being conducted in six countries.

The CEE Model United Nations (CEEMUN) 2013 event was jointly organized by SAYEN, CEE and 'MUN for Change' on July 17-18, 2013 at CEE, Ahmedabad. CEEMUN is set up as a platform where students get an opportunity to debate on crucial sustainability issues such as the conservation of biodiversity; food security; renewable energy sources and poverty.

CEE and CEPT University in cooperation with UNESCO, the Swedish International Centre for Education for Sustainable Development (SWEDESD) and ICLEI – Local Governments for Sustainability, established the “UNESCO Chair on Education for Sustainable Development and the Human Habitat” in October 2013 at CEE for four years. The aim of this programme is to strengthen the understanding of Education

for Sustainable Development in human habitat and urban studies through activities such as developing and delivering courses for postgraduate programmes, short term training programme, research and institutional development.

CEE in association with Emirates Wildlife Society (EWS)-World Wide Fund for Nature (WWF), United Arab Emirates (UAE) conducted a pilot programme to strengthen teachers' capacity and ingenuity in leading school level initiatives in UAE through an initiative called 'Green Teacher-Eco School Programme'.

The 8th SAYEN Regional Meet, supported by UNEP and hosted by CEE, India and the Royal Society for Protection of Nature (RSPN), Bhutan was held in Thimphu, Bhutan from 24th to 26th of July, 2013. A key outcome from the Regional Meet was the SAYEN Action Plan- 2013 to 2015, an outline of the work SAYEN youth have committed to undertake for the next two years and the Youth Advisor elections, customary for every Regional Meet, where new Youth are elected by their peers to serve as Regional and Sub-Regional Advisors for the next 2 years.





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CEE served as the technical partner to the UNESCO project titled 'Joyful and Effective Teaching and Learning in Science in Maldives'. The Project, which is funded by the Japanese Funds-in-Trust, aims to 'Enhance teacher and teacher training capacity in the Maldives, in the teaching and learning of Science and Environment.'

A Memorandum of Understanding (MoU) has been entered into with AVH Chemicals and CEE under AVHC's Corporate Sustainable Development Program to encourage a more community based, participatory process-oriented, gender sensitive approach, with a clear focus on actions that need to be done in the villages to have a better quality of life of the locals in a sustainable manner.

Children's Media Unit (CMU) has been working closely with Environment Agency Abu Dhabi (EAD) as a key collaborating partner in the Sustainable Schools Initiative (SSI) and Sustainable Campus Initiative of Abu Dhabi. During this period, CMU worked on two Resource Books for teachers of Primary and Secondary level, to equip teachers of Abu Dhabi with a range of pedagogical approaches and methodologies to support EE and ESD.

Towards the planning, development and implementation of the Global Citizenship for Sustainability (GCS) Marine, Project 1600, the GCS project team at CEE Australia undertook steps towards the Project Planning, Resource Development, Development of a Database of Schools and

Organisations in Queensland and Networking and Outreach. Information developed on the project was used in the development of the GCS Marine flyer and was also uploaded onto the CEE Australia website.

The 7 multi-stakeholder teams, constituted from 7 cities as a part of the Supporting Urban Sustainability Programme (SUS) by SWEDESD, Sweden, attended workshops in April and July 2013 to learn about the Inquiry Based Approach, collaborative governance and ecosystems services. The learnings and achievements were presented at a concluding workshop in December 2013.

CEE bagged the bid for training and capacity building of the education practitioners of Maldives, in science education. This capacity building assignment, which has been commissioned to the Centre by the Swedish Committee for Afghanistan, aims at training the creative teachers and education provincial managers in effective teaching and learning of science at the primary school level.

A case story based on the process and results of participatory study and conservation of genetic diversity of Mango and 3 other fruit trees from the Western Ghats in Maharashtra was selected for presentation at the Asia-Pacific Expert Workshop on Formal Education-Non Formal Education Partnership for Education for Sustainable Development (ESD), in Okayama, Japan, in October 2013.

## 1.1 National Green Corps (NGC) Programme

National Green Corps (NGC), a programme launched by the Ministry of Environment and Forests, Government of India during 2001-2002, aims at creating awareness among school children throughout the country on issues related to sustainable development keeping environmental issues as the major focus. Working through eco-club networks, NGC has established nearly one lakh eco-clubs involving more than 35-40 lakh students and 10 lakh teachers, one of the largest networks in the country. These clubs provide school children with opportunities to observe and learn more about nature, its diversity and other aspects of their immediate environment, thus motivating them to become environmentally literate and responsible citizens. NGC activities are executed through the State Nodal Agencies at the State level, and District Implementation and Monitoring Committees at district level.

The Centre for Environment Education (CEE) facilitates NGC activities in 15 states and two Union Territories (UTs) as resource agency - in 347 districts in the states of Gujarat, Rajasthan, Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Bihar, Jharkhand, Assam, Tripura, Arunachal Pradesh, Sikkim, Meghalaya, Manipur, Mizoram, Nagaland, and in two UTs including Daman and Diu, Dadra and Nagar Haveli. CEE also facilitates development of resource material, training modules, meetings and case study compilation.

### 1.1.1 NGC in the Northern Region

#### 1.1.1.2 Uttar Pradesh

CEE North had several rounds of meetings with the old nodal agency UP Pollution Control

Board and the newly appointed nodal agency Directorate of Environment, Government of Uttar Pradesh, to reinstate the programme in the state and plan for the yearlong activities. Meetings were also held with the Director and other officials of SNA to resolve the issues related to submission of activity reports, fund release from the Ministry and action plan. CEE North provided its inputs for the documentation of NGC activities in the state for report submission and for the planning of activities.

CEE organised a series of environment related events with NGC schools in the state during the year 2013-14.

In June 2013, a Paryavaran Mela was organised on World Environment Day by CEE North in collaboration with the Regional Science City and Forest Division, Lucknow. More than 350 students participated in educational activities during the event. The mela had five sections - Creative Art and Craft, Games Corner, Puppet Show, Quiz, Poster Competition. Winning students in the games and competitions were given prizes and participation certificates.

In July 2013, Ground Water Week was observed with NGC schools in Lucknow, with more than 200 students from three schools participating in the campaign. Students were given an orientation to the importance of conservation of groundwater; they also participated in various competitions.

During July to September 2013, plantation drives were organised in more than 10 NGC schools which were also part of the Children's Forest Programme initiative being implemented in 100 schools of Lucknow district.

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During July to October 2013, teacher training workshops were organised in six locations covering Lucknow, Agra, Meerut, Allahabad, Varanasi and Pilibhit with the support of Earthian and Paryavaran Mitra Puraskar 2013 programmes.

In September 2013, CEE North organised a district level programme for eco-club students of Lucknow on the occasion of Green Consumer Day. Participants were given an orientation to the importance of the day followed by a quiz. Students were then divided into sub-groups for preparing skits, writing poems, painting competition, exhibition, slogan making, collage related to nature and forests. More than 70 students from eight NGC Schools participated in this programme.

During September and October 2013, CEE North organised PCRA painting competition in six locations in Lucknow, Merrut, Pilibhit and Faizabad. In each location, more than 200 eco-club students participated in the competition. Winners were given certificates and prizes and their entries were sent for the national level competititon. In October 2013, a teacher training workshop was organised involving NGC schools in Lucknow as part the Earthian and Childrenís Forest Programme.

During September 2013 to February 2014, nature camps - daylong as well as 3 days and 2 nights stay - were conducted for NGC schools of Lucknow. Day camps were conducted at Sandi Bird Sanctuary and Nawabganj Sanctuary, while night stay camps were held at Katarniaghat and Suhelwa Sanctuary. More than 300 students and around 40 teachers participated in these camps.

In February 2014, CEE North organised a programme on the occasion of World

Wetlands Day in Lucknow. The objective of the event was to raise awareness about the interdependence between water and wetlands, to understand that without wetlands there will be no water and to highlight ways to take care of our wetlands. More than 70 students and teachers from six NGC and Childrenís Forest Programme schools participated in the event.

In March 2014, CEE North organised a state level Paryavaran Mitra Puraskar ceremony 2013 in Lucknow where several NGC schools and stakeholders were awarded for their work in the field of environment conservation. More than 300 students, teachers, master trainers, NGOs and guests from the forest department participated in the event.

**Educational Material:** Two activity manuals were developed by CEE North for school teachers to conduct activities focusing on various themes. A book on water and sustainability was developed in Hindi which was disseminated among schools during teacher training in Uttar Pradesh. The Paryavaran Mitra handbook was translated into Hindi with support from NGC nodal agency UPPCB and was shared with NGC schools at various forums in UP.

#### 1.1.1.2 Bihar

In all, 8600 NGC Schools from 38 districts of the state have become part of this national initiative. Bihar State Pollution Control Board, Patna (BSPCB) which is the State Nodal Agency for NGC programme provides full support to this endeavour.

CEE North as a Resource Agency for the NGC programme in the state works closely with Master Trainers, teachers in-charge and schools in different districts.



Students taking out a Rally in Uttarakhand

**Outreach events:** In June 2013, CEE North, in collaboration with Gram Pragati, Bettiah, joined hands with NGC and Paryavaran Mitra schools to celebrate World Environment Day, 2013. Students, teachers and environmentalists enthusiastically participated in this event. The main objective of the programme was to create awareness among students and citizens on the theme for this day - Think. Eat. Save. For this, students took out a rally covering a distance of around three kilometers in their community with slogans like 'Where there is greenery, there is happiness', 'Save Earth to Save Life' and placards prepared by them. The speakers interacted with students and urged them to avoid use of plastic, wastage of food, conservation of rain water, ponds and ground water. Seven schools participated in painting, quiz and essay competitions.

During July 2013, a Van Mahotsav programme was organised by Tiger Reserve, Bettiah, wherein Gram Pragati in collaboration with CEE North, actively participated in an effort to increase green cover through public participation and to inculcate the value of plantation and its care among NGC and Paryavaran Mitra school students. More than 150 students, teachers, Forest Department

officials and NGO representatives participated in this event. The programme started with a plantation ceremony where the guests for the day along with students planted around 60-70 saplings of various species. A district level quiz competition was organised for the participating schools.

In August 2013, schools of W. Champaran, under the guidance of District Education Department and CEE's partner organisation were involved in celebrating Bihar Prithvi Diwas, which is being celebrated since the last two years by the state government on August 9. A unique Handprint initiative and a joint venture of Forests and Environment Ministry along with Education Ministry of Bihar Government, this diwas tries to strongly involve schools and students in environment conservation and plantation activities. In order to celebrate the day, saplings of Neem, Sagwan, Aam, Amrud etc. were provided to participating schools by the state forest department. Around 65-70 schools of the district participated in the campaign and planted on an average 12-15 saplings in their school campus. After the plantation activity, students and teachers of the respective schools also took a pledge to protect the environment from further degradation, to plant at least one tree in a year, not to pollute rivers and ponds, and not to harm any wildlife.

During February 2014, CEE North organised several nature camps under National Nature Camping Programme. A group of 46 eco-club members from two schools of West Champaran attended one of the camps organised at Suhelwa Wildlife Sanctuary, Uttar Pradesh. With its objective to provide eco-club members an opportunity to visit a wilderness area and have an outdoor nature education experience, NNCP was initiated by the Ministry on a pilot

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basis this year. This first time experience for most of the students rejuvenated their mind and soul; and students felt the vibration of enthusiasm when in the midst of the green, comforting and pleasing environment. During the camping, students were taken on a journey where they got to observe various elements of nature closely. Various concepts learnt from their textbooks were brought alive for them. The evenings were filled with cultural activities and quiz around a bonfire. A special programme by local folk artists provided the students a close proximity to the intangible cultural heritage of the place. The camp turned out to be an interesting and memorable one for all the students, as evidenced by their general feedback where they also demanded that next year they should again be taken to this place, not for three days but for ten days!

**Trainings:** In September 2013, six training workshops for teachers in-charge were organised across six districts of Bihar, viz. Bahagapur, Rohtas, West Champaran, Arra, Patna and Motihari. The central theme of these training workshops was to brief and orient selected schools for the implementation of the Earthian project, Paryavaran Mitra Puraskar 2013 and the NGC programme. The content included concepts such as developing an understanding among teachers about environmental education and sustainable development, curriculum linkage to environment education, water related 'earthian' components such as demand of water in school, water trail, water quality and local to global inter connections of water. Another major component of these trainings was briefing teachers in-charge about Paryavaran Mitra Puraskar 2013, through interactive discussions, screening of small documentaries and other group based activities. Local resource persons and officials

from the respective district education departments were invited to interact with these groups of teachers on the current environmental scenario of their district; and plans were initiated to work together to make these districts part of a hub of increasing Handprint districts in the state. Around 170 teachers in-charge in six districts were reached out through these training programmes.

**Monitoring of Schools:** Members from CEE North visited around 60 NGC schools of Bihar spread across seven districts and 14 blocks. The visits were undertaken by four team members during the first and second weeks of December 2013. The districts covered included Muzaffarpur, Samastipur, Darbhanga, Vaishali, Saran, West Champaran and East Champaran. Along with the district headquarters, some interior blocks as far as 50-60 km away were also visited to get a glimpse of the eco-club activities being implemented there. The objectives of these visits was to capacity build and facilitate the schools in implementing eco-club activities, to get feedback and to document observations on the functioning of the NGC programme in the state. During visits to district headquarters, meetings were held with District Education Officers (DEOs) to discuss various components of the programme. These meetings proved fruitful as the DEOs were updated on the status of the programme. In some districts, consultative planning was conducted to take the programme forward effectively.

During the visit to schools discussions were held with eco-club teachers in-charge and principals about eco-club activities and the constraints being faced by them in the implementation of the programme. During these interactions, CEE members shared ideas for documentation of eco-club activities like



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maintaining eco-club register, celebrating various environment days and taking up action based initiatives on Paryavaran Mitra themes - energy conservation, biodiversity and greening, water conservation, culture and heritage and waste management. Schools were also given a format with information on eco-club activities and a Bihar state specific eco-chart Jaane Pahchaane Bihar - Prakriti ka Adbhut Sansaar. In some schools, interactive sessions and hands on activities were conducted with eco-club members to give them more ideas about the functioning of eco-clubs and what they can do within their schools under NGC. Overall the visits proved fruitful and provided some very useful information which will be utilised to enhance eco-club activities in the state.

**Co-ordination Meetings with SNA:** Several rounds of meetings were held with the state nodal agency, viz. Bihar State Pollution Control Board, with the objectives of discussing the strengthening of NGC network in the state, and organising training programmes and events for eco-club teachers in-charge and students. Some meetings and telephonic discussions were also conducted with BSPCB to brief them about Paryavaran Mitra programme in the state; subsequently the state level Paryavaran Mitra Puraskar jury was held at BSPCB.

**Case Study Documentation:** During monitoring visits and follow-ups with schools, CEE team came across two schools which were conducting a lot of Handprint initiatives within their school and nearby communities, which were documented as cases.

**Educational Material:** CEE North developed two manuals for schools to conduct activities focusing on various themes. A book on water

and sustainability was developed in Hindi which was disseminated among schools during teacher training in Bihar. The Paryavaran Mitra handbook was developed in Hindi and shared with NGC schools at various forums in Bihar.

**NGC e-newsletter:** To document NGC activities and experiences, CEE has initiated a monthly e-newsletter for key stakeholders and schools, covering NGC activities in the 15 States and two Union Territories where CEE is working as resource agency. The newsletter covered activities covering five aspects; coordination meeting, educational material, training, events and monitoring visits/case studies. The newsletter was initiated in January 2014 whereafter CEE developed three issues and shared it with the MoEF&CC and state nodal agency officials.

### 1.1.2 Chhattisgarh

The NGC programme is implemented in 27 districts of the state including nine new districts formed in January 2012, with each district having 250 eco-clubs. The State Nodal Agency - Chhattisgarh Environment Conservation Board (CECB) - is in the process of updating the list of schools of the relevant districts. CEE Chhattisgarh, as the State Resource Agency for NGC, supported the programme and the nodal agency by providing technical guidance, resource materials on different occasions and facilitation support for the various events conducted throughout the year. CEE Chhattisgarh also took up monitoring visits and shared the feedback with the nodal agency.

On the occasion of World Environment Day, posters on the theme Raise your voice, not the sea level in ready-to-print format were provided by CEE, which were launched at the

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WED function and distributed later on by the Nodal Agency to participants and eco-clubs.

In February 2014, a state level painting competition and essay writing competition on the theme Wetlands and Habitat was organised in which 34 students from 12 schools participated from eight districts of Chhattisgarh. This helped them to understand the importance of wetlands and different habitats and life forms in our surroundings. Students were also briefed on the given theme. Mr. A. K. Agrawal, Hydrogeologist, Ministry of Water Resource, GOI, was the judge for competitions held on the occasion.

**Monitoring:** CEE Chhattisgarh state team visited 79 NGC eco-club schools in the state across 15 districts during September-December 2013, as part of the monitoring process. Five new districts were covered in this among the nine newly formed ones with 250 new eco-clubs being formed in each district. Meetings were held with the District Education Officers (DEOs) of these districts and they were briefed about the NGC programme including the process for selection of eco-clubs, types of activities to be taken up and management of the clubs. A brief one page guideline to be circulated in NGC schools was provided at the meetings.

The objective of these visits was to orient and provide direction to eco-club members, teachers in-charge and principals about undertaking action projects and report writing. During the visits, the team interacted with the eco-club members and others, checked reports and understood the work undertaken by each eco-club. The team went through registers, reports on observance of environmental days, official communications, paintings, plantation on campus and various other activities. It was

observed that many eco clubs have done commendable work under NGC programme.

A brief guideline (Sanchipt Margdarshika) was distributed to schools to help plan their yearlong activities. The visit also helped understand the capacity building needs for strengthening of eco clubs in the state.

**Training Support:** CEE Chhattisgarh State Office organised a district level one day teachers training in December 2013 at Rajnandgaon District, Chhattisgarh. In all, 71 teachers from 70 schools of nine blocks participated in this. The objective of this training was to build capacity and create awareness about NGC and its activities and the expectations of the programme from eco-club schools and teachers. The District Education Officer of Rajnandgaon was also present during the training programme and encouraged teachers to improve the eco-club activities in their respective schools. This training provided the participants a perspective about participatory learning and a focus on joyful learning in different themes such as water, energy, biodiversity, waste management, culture and heritage and climate change.

**Outreach Activities:** In December 2013, a one day school activity was organised in Maharishi Dayanand Arya H.S.S. Raipur, in which around 50 students participated. CEE resource persons organised games and other EE activities.

**Coordination:** Meetings with district coordinators, district education officers, teachers and principals were held during monitoring visits for better implementation of the NGC Eco-club programme in the state. The meetings with the District Collector and DEO, Rajnandgaon were very useful and elicited a positive response in conducting a DIMC

meeting in their district. They have offered and assured their full support to eco-club activities in their district. This is being followed up and the team looks forward to the DIMC meeting in the next session in Rajnandgaon and similar ones in other districts as well.

**Training, Networking and Capacity Building:** CEE facilitated a three day training workshop for school children with Terre Des Homes at Raipur. Approximately 60 children, through environmental games and quiz, learned about how they can contribute to the larger ecosystem and how they can leave behind handprints while reducing the footprints towards environmental sustainability.

## 1.2 Paryavaran Mitra Programme 2013-14

Paryavaran Mitra programme is an initiative of the Centre for Environment Education (CEE) in partnership with the Ministry of Environment and Forests and ArcelorMittal India.

Paryavaran Mitra is a nationwide initiative to create a network of young leaders, from schools across the country, who have the awareness, knowledge, commitment and potential to meet the challenges of environmental sustainability in their own spheres of influence.

The programme, initiated in 2008-09 as a campaign on Climate Change Education, has developed as the flagship school programme that brings together CEE's 30 years experience in EE and ESD.

The Paryavaran Mitra programme reaches out to more than 2,00,000 schools who have received the programme resource material and are carrying out action projects focusing on local environmental issues in the five themes

of the programme. The programme encourages schools to qualitatively enhance their learnings through a project based methodology and share their experiences. Exemplary work done is recognised through the **Paryavaran Mitra Puraskar** (Paryavaran Mitra Awards). The annual award process was the major activity carried out in 2013-14 and saw entries in the school, teacher, student and district categories from all over India. The process of evaluating the entries involved creating new criteria and benchmarks for the awards which enabled taking the programme objectives from awareness to Handprint action. Teachers were facilitated through several teacher orientations on how to take up action projects and document the same highlighting environmental and educational outcomes, both quantitative and qualitative. The state level awards have been selected and state level events have been conducted.

**Paryavaran Mitra Young Leader for Change 2013:** is a cadre of students involved in exceptional environmental action projects focusing on changes in their immediate



Paryavaran Mitra Young Leader for Change 2013 took up an action project 'Save Kukrahalli Lake' using online and offline mediums of communication



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environment. The educational process spans from developing action plans to implementing them and sharing experiences. The initiative aims to develop leadership skills amongst students through experiential learning. From all over India, 35 students were mentored through this initiative on taking up projects at the home, school and community levels. The initiative now aims to scale up incorporating all the learnings from the experimental phase. The initiative is also being adopted by Uttar Pradesh where a cadre of around 50 young leaders will be formed by CEE North with support from Uttar Pradesh Pollution Control Board in the year 2014.

**Resource material:** The Paryavaran Mitra Teachers' Handbook is now available in English, Hindi, Urdu, Gujarati and Telugu as a soft copy on the resources tab of the Paryavaran Mitra website.

**Partnerships:** The outreach and enthusiasm of the Paryavaran Mitra network of schools, teachers and students has inspired several partners to come onboard and work together to increase the reach of the programme and also to bring depth in the content and delivery. In the water theme, the programme has partnered with Wipro's Earthian programme to look at water sustainability in the vicinity of the school. Of the 400 entries received in this initiative in 2013, 250 were from Paryavaran Mitra schools. In 2013, the 'Create to Inspire' project, which encourages students to think of sustainability in the cities they live in, under the themes of Water, E-Waste, Energy, and Transportation, was initiated in the Ahmedabad network of the programme, in partnership with GIZ and Nokia.

The students in the network continue to pursue the Young Masters Programme on Sustainable Development, a joint initiative of

CEE and IIIIEE, Lund University, Sweden. It is a free, global web based course on sustainable development. This initiative is an attempt to foster global citizenship amongst students, which is one of the three priorities of the UN's Global Education First Initiative.

**Campaigns:** Campaigns are another means by which partners associate with the programme and play a role in engaging the network in environmental action. The major campaign that were initiated this year were the PCRA painting competition engaging students in creative expressions in the theme of energy. The other major campaign was the Power Count Challenge which looks at schools taking up action in their environment on saving energy through responsible behaviours. To quantify the change, participants had to send their electricity bills for the saving months and for the same period of the previous year. The reach went far beyond the actual participants as it triggered awareness and action for further engagement even in the community.

The Water Day 2014 and Eco-Holi Campaign helped students look at the global and local implications of water conservation. The online campaign shared several ways of looking at water issues and environment friendly ways of celebrating Holi. The response to these campaigns has been encouraging.

### Communication Media

**Website:** Paryavaran Mitra website was revamped to a lighter version and is now the gateway to several ESD initiatives. The dedicated 'Focused Initiatives' webpage gives a wide array of different initiatives catering to different grade levels which any school can take up. The Campaigns page is a catalogue of all the campaigns conducted so far and

ongoing campaigns which schools look for and participate in.

**Newsletter:** The fortnightly newsletter covered several handprint actions from the Puraskar awards and from campaigns. The newsletter is also a medium to show teachers what Handprint actions of students would look like.

It has been received well in several quarters including the international network, as the following feedback illustrates:

It is wonderful to have such a detailed record of events, and a huge job to compile I would say. The work done in the Paryavaran Mitra programme is so impressive the figures are so impressive, in comparison with little old Europe. My geography of India is improving, and I am hoping that it will get even better, as I follow the various programmes around your fascinating country.

**-Bríd Conneely, Eco School  
Coordinator Foundation for  
Environmental Education, UK**

More information on the programme can be had at: [www.paryavaranmitra.in](http://www.paryavaranmitra.in)

### **1.2.1 Paryavaran Mitra in the Northern Region**

CEE North implemented the Paryavaran Mitra programme in Uttar Pradesh where a series of workshops and events were organised. CEE North developed Paryavaran Mitra Puraskar dissemination material in Hindi which included a brochure for schools and teachers. Other materials for website announcement were also prepared in Hindi. CEE North developed the Hindi version of the Paryavaran Mitra handbook with the support of UP Pollution Control Board. CEE North also

closely worked with Punjab School Education Board for developing the handbook in Punjabi, which has been prepared by a group of textbook writers and is available as a soft copy.

**Partner NGOs Orientation Workshop:** CEE North organised a one day regional workshop in June 2013 at Lucknow to provide orientation to partner NGOs from Uttar Pradesh and Bihar on the new phase of the Paryavaran Mitra programme. Twelve participants from 10 NGOs of both the states attended the workshop. Representative from Gram Pragati, Betiah, West Champaran shared the experience of working on Paryavaran Mitra programme and spoke about the joint efforts of government and NGOs to involve a large number of schools in various activities. All these efforts led to West Champaran being selected as the Best District in 2012. Similarly other partners also shared the story of their region, for example, where a student was selected as Young Leader for Change in 2012. In the workshop, partner NGOs were guided to prepare their district strategy for working with schools for Paryavaran Mitra Puraskar 2013. Each NGO is planning to take up a cluster of schools in their districts to promote Paryavaran Mitra activities.

#### **1.2.1.1 Uttar Pradesh**

##### **Summer Camp on Environment and Science**

Two consecutive sessions were conducted by CEE North during the Summer Camp 2013 organised by the Regional Science City, Lucknow, for young students of classes 2-10. The CEE North team facilitated the session on understanding the dilemma of environment and development, and inspired students to join the Young Leader for Change initiative. Students had many queries related to the

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initiative and took details for sending their application. They also took part in educational activities and worked in groups to find solutions for safeguarding the environment.

**Teacher Training Workshops:** CEE North organised six district level teachers training workshops during August and September 2013 as part of Paryavaran Mitra Water and Earthian initiative in Uttar Pradesh. The training programmes aimed at providing orientation to teachers for the implementation of the Earthian and Paryavaran Mitra Puraskar 2013 activities, and to capacity build the teachers to initiate and promote project based learning within their school curriculum. The workshop module also focused on climate change related issues, especially water.

The first workshop was organised at Kendriya Vidyalaya, Lucknow in August 2013, which was attended by 27 teachers from 20 schools of the city. The next workshop was organised at Agra in September 2013 in collaboration with Jindagi Foundation, in which 17 teacher from 15 schools participated. Another workshop was organised at Allahabad in September in collaboration with E-Pahel which was attended by more than 18 teachers from 16 schools. This was followed by a training programme at Varanasi, organised in collaboration with Azad Welfare Society, and attended by 27 teacher in-charge. The workshop in Merrut in October 2013 was organised in collaboration with Bharat Uday Education Society, with the participation of 36 teachers from Merrut and Muzzafarnagar districts. The last workshop was held at Pilibhit on October 10, 2013, organised with the support from NGC Master Trainer and DIET Pilibhit. More than 47 teachers participated in this workshop from Pilibhit and Bareilly districts.

**Teachers Meet on Environment:** CEE North team was invited as guest speakers during the monthly teachers meet organised by City Montessori School in Lucknow in October 2013. The school has 20 branches in the city with over 45000 students studying in them. The school gives due importance to environment education and has allocated the last day of every month for environment coordinator teachers of all the branches to meet and share their efforts and experiences. The CEE North team was invited to this meet for an interaction and sharing of ideas on environment based action projects. The Head of the CMS appreciated CEE's work in the field of environment. The CEE team gave a brief background on CEE's school initiatives, especially Paryavaran Mitra and shared the Young Leader for Change video with the group. The team also briefed the teachers on the Young Masters Programme. The environment coordinators showed willingness to be part of CEE's initiative to promote more intensive EE activities in CMS schools.

**State level Puraskar Ceremony in Uttar Pradesh:** On the occasion of World Forestry Day ñ March 21, 2014 - CEE North, in collaboration with Uttar Pradesh Forest Department and Uttar Pradesh Forest Corporation, organised the Paryavaran Mitra Puraskar 2013, the state level award ceremony. More than 500 participants attended the programme including 300 students and teachers from various districts, NGOs and district level officials.

The event was meant to recognise and encourage efforts by schools and individuals to strengthen and promote environment education initiatives. The event was presided over by Mr. V. N. Garg, Principal Secretary, Environment and Forests, Government of Uttar

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Pradesh. The other panelists were from the UP Forest Department: the Principal Chief Conservator of Forests, and PCCF Wildlife, Secretary Forest. Mr. Garg appreciated the concept of recognising schools, teachers and students for their work in environment education. In the category of best schools, five schools of Lucknow and Allahabad won the award; five teachers were selected as best teachers; and two students from Lucknow received the best Young Leader for Change award. Under the best district category, Lucknow and Merrut districts were the winners. Three state level special category awards were also given to the NGC Master Trainer of Pilibhit, an NGO from Merrut and a newspaper of DLA Publication, for their efforts in promoting the cause of environment conservation. The awardees felt highly motivated and pledged to carry on with their common cause of striving towards making this earth a better place to live.

PCRA Painting Competition: CEE North organised eight events to conduct the PCRA painting competition focusing on energy conservation, in Faizabad, Merrut, Pilibhit and Lucknow. The local NGC master trainer and partner NGOs supported the CEE team in conducting these events in the schools.

#### **1.2.1.2 Bihar**

##### **Teacher Training Workshops**

CEE North organised six workshops in Bihar which focused on the implementation of 'Earthian' and Paryavaran Mitra Puraskar 2013 activities, and to capacity build the teachers to initiate and promote project based learning within their school curriculum.

The first workshop was held in September 2013 at Bhagalpur in collaboration with Global

Environmental Organisation and was attended by teachers from 24 schools of the district. The next workshop was organised at Rohtas in collaboration with Babu Chandrika Singh Memorial Trust in September 2013, where 30 teachers in-charge from 30 schools of the district attended. Two more trainings were organised at Arra and Patna in September which had a total participation of 60 teachers in-charge from as many schools.

Another round of trainings were organised at Bettiah and Motihari in September in collaboration with Gram Pragati organisation where more than 55 teachers in-charge participated. Interactive discussions, screening of small documentaries and group based activities were Teacher in-charges were used for capacity building the participants. Local resource persons and officials from the respective district education departments were invited to interact with these groups of teachers on the current environmental scenario of their district. The participants also initiated plans to work together to make these districts Handprint districts in the state.

##### **PCRA Painting Competition**

CEE North organised four events to conduct the PCRA painting competition on energy conservation, in West Champaran, Patna and Bhojpur. Local NGC master trainer and partner NGOs helped conduct these events in the schools.

#### **1.2.2 Chhattisgarh**

The Paryavaran Mitra programme in Chhattisgarh reaches out to about 6750 National Green Corps schools and another 376 schools through partner NGOs.

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### **Paryavarn Mitra Puruskar**

The Paryavarn Mitra Puruskar event was held in February 2014 at Raipur. Mr. A. K. Agrawal, Superintending Hydrogeologist, Ministry of Water Resource, GoI, was the Chief Guest of the award ceremony. The best schools, teachers and students from the state were awarded for their outstanding work in any three thematic areas of their choice. The winners go an opportunity to briefly present their activities for which they got the recognition, and also for sharing and cross learning from each other. Altogether 34 students from 12 schools participated from eight districts of Chhattisgarh. The student group from Government School, Kabeerdham, also presented a short play, conveying a message to the audience about how we are slowly destroying Mother Nature's beauty though she still continues to give us life in every form.

#### **1.2.3 Madhya Pradesh**

As part of the Paryavarn Mitra programme, a visit was organised to the Adamgarh Pahariya Cultural Heritage Centre in which students from 50 schools participated and planted more than 20000 saplings at the centre under the Haryali Mahotsav. The event was jointly hosted by the Archaeological Survey of India and CEE MP State Office.

#### **1.2.4 Kolkata**

##### **Paryavarn Mitra and Teachers Training in West Bengal**

The Waste Management group at CEE Kolkata facilitated the Paryavarn Mitra Puraskar 2013 across the state. In West Bengal, the Paryavarn Mitra programme was implemented in partnership with the Directorate of School

Education, while the respective District Inspector, SSA and DIET Centres were approached for getting maximum reach of the programme to the schools.

In the reporting period, a three day teacher training programme was conducted at Kurseong, North Bengal, where teachers from 30 schools participated. The topics of sustainability and its linkage to EE, waste management, biodiversity and other related aspects were addressed in the training. A field trip with the theme 'Nature walk as a tool for imparting environment education' to Llyod's Botanical Garden, Darjeeling was also conducted under the programme. The entire programme sought to highlight the activity approach to impart environment education to students.

Around 20 schools across West Bengal submitted their activity reports for the Paryavarn Mitra Puraskar for the year 2013, out of which seven schools were shortlisted. The regional jury was held in February 2014, where the best school, best students and best teachers were selected out of the shortlisted entries. The regional felicitation event under the programme will be held in May 2014.

#### **1.2.5 Andhra Pradesh**

CEE AP has implemented the Paryavarn Mitra programme with the objective to encourage all Government Primary Schools (PS), Upper Primary Schools (UPS) and Zilla Parishad High Schools (ZPHS) to initiate school level action towards Sustainability and Climate Change, on the themes of biodiversity, waste management, culture and heritage, energy and water conservation.

During 2013-2014, the state level Paryavarn Mitra programme was implemented with



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support from the Department of Education, Government of Andhra Pradesh and partner NGOs in the districts. The material and guidelines were sent across to 1000 Government Primary Schools, Upper Primary and Zilla Parishad High Schools and Social welfare Hostels in Medak district.

The Paryavaran Mitra awards were announced for three categories: PM schools 2013-14, PM plus 2013-14 (winners of 2012-13) and PM Plus Plus 2013-14 (winners of 2011-12). The information materials (wall poster with information on the competition, registration form and reporting formats, guidelines for conducting activities on the selected five themes) were disseminated to the 1000 schools by CEE. Guidelines from State Project Director (SPD) were sent to all Project Officers (POs) and District Education Officer (DEOs).

#### **Paryavaran Mitra Plus and Plus Plus:**

- **PM Plus 2013-14:** Award winners of Paryavaran Mitra 2011-12 competition, were enrolled in the Paryavaran Mitra Plus competition, under which they did intensive interventions in one selected theme. Out of 12 schools, six schools had sent their reports and all the six schools emerged as winners while the remaining were awarded with consolation prize.
- **PM Plus Plus 2013-14:** Award winners of Paryavaran Mitra 2010-11 competitions, were enrolled in Paryavaran Mitra Plus Plus competition under which they selected one theme and initiated activities that demonstrate tangible results at village/district level. All five participating schools have sent their reports and three schools

emerged as winners while remaining two were awarded consolation prizes.

#### **1.2.6 Tamil Nadu**

##### **Paryavaran Mitra 2013 Award Ceremony in Tamil Nadu**

The Paryavaran Mitra state level event was organised by CEE Tamil Nadu on March 21, 2014, at the ICSA Programme Centre, Egmore. In all, 777 schools from 30 different districts of Tamil Nadu had been enrolled for this programme. Paryavaran Mitra Puraskar 2013 recognises stakeholders in four different categories - Best District, Best School, Best Teacher and Best Student. The event was formally initiated by a welcome address by Ms. S. Rejini of CEE, in which she gave an overview of Paryavaran Mitra 2013 and shared the glimpses of the programme activities under different themes Tamil Nadu. Dr. H. Malleshappa IFS, Director, Department of Environment, delivered the inaugural address, while Mr. P. Kuppusamy, Joint Director, SSA and Mrs. Jessie Jeyakaran, Member of Zoo Educators Network & Zoo Climate Change Network, South Asia, addressed the audience. Around 50 participants comprising NGC coordinators, officials from the Chief Education Offices, Principals, teachers and students from Chennai and six other districts, viz., Salem, Coimbatore, Madurai, Dindigul, Trichirapalli and Kanya Kumar, participated in the event. The Best Districts awards were given by Dr. Malleshappa; Mr. Kuppusamy gave away the Best School Awards. The Best Teachers awards were distributed by Mrs. Jessie Jeyakaran, while Mr. Shriji Kurup and Ms. S. Rejini, Programme Coordinators of CEE distributed the Best Student awards.

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### **1.3 Ganges River Dolphin - Conservation Education Programme**

The Ganges River Dolphin (*Platanista gangetica gangetica*) is listed as Schedule 1 species in the Wildlife Protection Act 1972 and recognised as Endangered by IUCN. In order to focus public attention on the conservation of Ganges River Dolphin, the Ministry of Environment and Forests has declared it as the National Aquatic Animal on October 5, 2009. CEE with the support from MoEF&CC has initiated a two year Ganges River Dolphin Conservation Education Programme in July 2010.

CEE North has been working on the conservation of this species since its inception as part of its river conservation initiatives. Having been declared as a national aquatic animal, the CEE team felt a need to give a strong impetus to its conservation by presenting this shy and endangered species to school children and other stakeholders and most importantly to our nation. With support from the National River Conservation Directorate of MoEF&CC, CEE has been implementing this conservation education programme in the schools of major riverside areas where the Ganges River Dolphins are found in the Ganges and Brahmaputra river systems of northern, eastern and north-eastern India. Twenty project locations were identified along the Ganges and Brahmaputra river systems in the four states of Assam, Bihar, Uttar Pradesh and West Bengal for the programme. As part of the school activities, CEE developed an Information, Education and Communication (IEC) package on the Ganges River Dolphin for various stakeholders.

#### **1.3.1 Ganges River Dolphin Day Programme in Bihar**

The day on which the Ganges River Dolphin was declared as the National Aquatic Animal on October 5 - has been declared as Dolphin Day. The educational package developed by CEE North was requested by the Department of Forest for wide distribution throughout the State. The CEE team was also invited for a state level Dolphin Day programme held on October 5, 2013, to share the Centre's experience of working with schools around the dolphin habitat. More than 600 students, teachers, professors, scientists, JFMC members, fisher folk from the dolphin belt, media persons and NGO representatives attended this programme. The Chief Guest for the programme was the Hon'ble Chief Minister who shed light on the importance of the Ganges River Dolphins for a clean Ganga and appreciated the efforts being taken by various stakeholders for its conservation. Bihar State Forest department also presented the initiatives being taken in the state for conservation of biodiversity and species such as dolphins. The CEE North team made a presentation on the efforts being taken by the Dolphin schools in the state for the conservation of Ganges River Dolphins. With this programme and other activities, CEE's educational package on the Ganges River Dolphin was distributed among 2000 stakeholders.

#### **1.3.2 New Phase of Dolphin Programme**

Based on the experience with Phase I, CEE North submitted a plan for extending the programme to schools of the Ganga Basin and also for working with riverside communities. The National Ganga River Basin Authority (NGRBA), Government of India, along with the National Mission for Clean Ganga

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(NMCG), with financial assistance from World Bank, agreed to support Phase II of the Ganges River Dolphin Conservation Education Programme. Several rounds of meetings and discussions were held during 2013 and January-March 2014, before the project proposal was approved by NMCG.

### **1.3.3 Inception Workshop**

An inception workshop was organised in March 2014 at CEE's Ahmedabad office where CEE North team shared its experience of Phase I and the plan for the new phase with the NMCG team. The subsequent discussions centred on the plan of action and the procedures to be adopted for the programme.

## **1.4 Children's Forest Programme (CFP)**

CEE North is implementing the Children's Forest Programme (CFP) in Lucknow District of Uttar Pradesh. The CFP is a programme that has been initiated in six districts under the Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project (UP-PFMPAP) of UP Forest Department, supported by JICA. The programme is for a period of five years (2010-2015) and aims to reach out to 100 schools in each of the six participating districts: Agra, Allahabad, Gautam Budh Nagar, Kanpur, Lucknow and Varanasi.

CFP aims to create understanding among children about the value of trees, and to motivate and support them to plant saplings in their school campus, and ensure their protection. The programme focuses on engaging children, teachers, school management and local community in meaningful action towards promoting environment conservation.

CFP provides an opportunity to 100 schools of Lucknow District to be part of the global initiative and take local action for a green and sustainable future. The programme is aimed at triggering a sense of active participation and achievement among children through activities which will excite and motivate them. Thus it will ultimately lay the foundation for a lasting commitment to the environment. The programme also addresses aspects linked to ecosystem services, climate change concerns, consumption and lifestyle, by encouraging students to plant and conserve trees and thereby create a resource base, carbon sink, and a nutritional and economic source.

### **1.4.1 Identification of Schools**

CEE North Team selected the first two batches of CFP schools consisting of 35 schools in each batch. In 2013, CEE team identified the last and third batch of 30 CFP schools. The selection process was conducted after consultations with District Inspector of Schools (DIOS), Basic Shiksha Adhikari (BSA), District Science Club (DSC) Lucknow and Forest officials. The prospective schools were identified on the basis of interest and space availability, and NGC schools with plantation space were also included. Lucknow district was divided into four zones where school clusters were formed.

### **1.4.2 Enrollment as CFP School**

The selected schools were enrolled for the CFP programme, with details including school profile, area available for plantation, preferred saplings for plantation, facility for irrigation, and nomination of teachers in charge for the programme. An orientation programme was conducted to help students understand the environment, importance of trees in their life and individual steps to conserve these natural



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resources. The selected schools were provided with a unique number code by CEE on the basis of the eight different blocks, the type of school and their location (urban or rural).

#### **1.4.3 Orientation Programme**

After enrollment, the CEE team conducted orientation sessions in schools to brief students, teachers and staff about the programme, why develop a mini forest in their campus and what their role in the programme is. Along with this, each CFP teacher in-charge formed a Balvan Samooch of 70-80 students, involving students of classes 5 to 10. A CFP Action Team was also formed involving the principal, teachers, non-teaching staff and community members.

#### **1.4.4 Teachers Training**

A two day teacher training programme was organised twice to orient the teachers about various teaching-learning methods which would help them in linking CFP with the curriculum. The first workshop was held in July 2013 where more than 70 teachers from 50 schools of Lucknow district participated. The second round of teachers training was organised in October 2013 in Lucknow - the last in the series for the third batch of CFP schools. It was attended by 50 teachers from 30 schools of Lucknow district. The workshop aimed at building the capacity of teachers to use experiential teaching learning methods to transact concepts related to environmental conservation and to create mini-forests in the school campus as part of environmental education.

The Chief Project Director, UP Participatory Forest Management and Poverty Alleviation Project (UP- PFMPAP), in his inaugural address, spoke about the value of involving

students in creating mini-forests in school campus. He also disclosed that the Forest Department is planning to implement CFP in all the districts in the state due to the overwhelming response from schools.

As resource person, the former PCCF of UP Forest Department spoke about the role of forests and answered questions from teachers related to trees and forests. The ecosystem services provided by forests help to maintain the wellbeing of people. Various educational activities were conducted with teachers focusing on approaches to environmental education such as games, demonstration, performing arts, etc. Teachers shared their experience about action being taken in the field of water conservation, waste management and other areas. CEE team guided teachers in conducting environmental audits in schools and for preparing their own action plan. She also introduced participants to the environment calendar which could be part of the plantation schedule. Each school prepared and action plan keeping Paryavaran Mitra activities and environment calendar in mind.

#### **1.4.5 Plantation in CFP Schools**

CEE identified a list of 28-30 species of indigenous varieties of plants available with the Forest Department nurseries for plantation in CFP schools. The list was prepared keeping the climatic conditions, soil conditions, school specific requirements and other factors in mind. Each school selected about 100-150 saplings from the list and also fixed dates for the plantation.

Prior to plantation, each school was provided with a set of plantation equipments, organic manure and two CFP documentation registers. Teachers and students were briefed on maintenance of the registers - one was for



Briefing about plant diversity during  
nature tour of CFP in Lucknow

keeping details about the members of the CFP Action Team, its meetings and visitors remarks, and the other was for recording the status of saplings and equipments.

The plantation with the arrival of the monsoon in July 2013 in the CFP schools of Lucknow. More than 7700 saplings were planted in 70 school campuses. The saplings planted were combination of shady, ornamental, medicinal and fruit trees, with the popular choices of schools being Neem, Jamun, Mango, Kadamb, Satparni, Mahua, Ashok, Guava, Bel, Arjun and Aonla.

As per the enrolment of CFP schools, the third round of plantation was conducted in the first batch of 35 CFP schools, while in the second batch, the second round of plantation was conducted. The third batch of 30 schools conducted their first round of plantation. Schools are regularly monitoring the status of plants in the campus. During the plantation, students were briefed about the importance of tree plantation and their role in biodiversity conservation. Each student signed a pledge as commitment towards conservation and protection of biodiversity.

Students were taught plantation methods and also encouraged to adopt a sapling. After planting the saplings, students tagged them with the help of Rakshasootra. This also symbolised a strong bond and relation between the students and the sapling planted. Each students tagged their saplings by writing their own name and the common name of the sapling and pledged to protect and nurture them. In each school, 10 saplings were also distributed to students who were interested students to plant a tree at their home.

Community members, the Pradhan of the village, non-teaching staff and school management also participated in the plantation. The third week of July was also observed by CFP schools as groundwater awareness week, during which, students, teachers and community members were sensitised about the issues related to groundwater and their role in conserving it.

On Rakhsabandhan festival, students from eight schools of Lucknow prepared handmade rachis from waste material like CDs, hard board, old greeting cards, etc. In the presence of the Principal, teachers and other staff, they tied the rachis to the trees in their school campus as a symbolic act to protect trees as well as reuse waste material creatively.

#### 1.4.6 Nature Tours

As part of CFP activities, CEE North organised 30 day long nature tours for enrolled schools during the October 2013-February 2014, in which more than 2600 students from 30 schools participated. The CFP action team including 80-85 students and 5-7 teachers from each school participated. The nature tours were organised in the Kukrail Forest Reserve which is also a breeding centre for crocodiles and other freshwater species. The main

objective of these nature tours was to provide a unique experiential learning opportunity to the CFP Action Team through exposure to the splendour of nature and its varied elements. The activities included games, interactive sessions, nature trail, quiz and creative expressions. Based on the experiences of the nature tour, participating students were also encouraged to do small assignments and put their experiences and thoughts on paper. CEE North invited the dolphin programme partner Turtle Survival Alliance (TSA) to facilitate the technical sessions on fresh water biodiversity, including turtles, gharials and other freshwater fauna of the Northern India. A range of resource materials were also provided to the participants during the tour.

#### 1.4.7 Environmental Awareness Programmes

**Green Consumer Day:** CEE North organised a school environment awareness event in one of the schools to observe Green Consumer Day. Around 200 participants including children and teachers from 14 CFP schools of Bakshi ka Talab Block attended the event. The participating schools were briefed on how to

become environment friendly schools. Students were divided into two groups to take part in painting competition and quiz competitions. Fourteen schools participated in the qualifying rounds of the quiz competition out of which four teams were shortlisted for the final round. Schools also made presentations on the work being done by them in the area of water conservation, energy conservation, biodiversity study and greening, waste management and other topics. The teacher in-charge of the host school conducted a demonstration session on use out of waste products which children are doing in their school. The chief guest of the event - the Sub division Officer, UP Forest Department - encouraged children to protect plants and animals, and spoke about the significance of protecting trees for our own survival.

**World Wetlands Day:** CEE North observed World Wetlands Day with the CFP schools by taking them on a visit to a renowned wetland at Nawabganj Bird Sanctuary, Unnao. The objective of organising this visit was to raise awareness about the interdependence between water availability and wetlands, and ways to



Wetlands Day Celebration, Uttarakhand

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take care of our wetlands. Around 90 students and teachers from five schools participated in this programme.

This year's Wetlands Day theme being Wetlands & Agriculture: Partners for Growth, the focus was on the need for wetland and agricultural sectors to work together for the shared outcomes. The students were briefed on the importance of wetlands in our life and for various life forms dependant on them. At the Bird Sanctuary, students were taken on a trail to the lake site and also halted at an island where many games and activities were conducted with them. The students observed the many resident as well as migratory birds on the bushes, trees and also in the water. To conclude the day, an on-the-spot quiz was organised based on the day's briefings, discussions and the trail, to crystallise the students' learning about the wetlands and their importance. Participants had a fun packed day with lots of learning and exposure to wetlands.

**Environment Awareness Event:** In October 2013, CEE North organised an environment awareness event for CFP schools in Malihabad zone, with around 200 students from seven schools participating. A painting competition and quiz were organised for them with the winning students receiving prizes and certificates. School teams also sang environment songs.

**World Forestry Day:** CEE North, in collaboration with Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project (UPPFMPAP), Lucknow invited CFP schools to a state level event on World Forestry Day. More than 200 students participated and presented skits as well as displayed their school work.

#### **1.4.8 State level Workshop on Sharing Strategies for Van Mahotsav**

CEE North was invited to make a presentation on the centre's experience of greening campuses with special reference to Children's Forest Programme (CFP) going on in UP in June 2013. CEE North shared experiences from schools and how environmental education as a tool helps in engaging children with greening initiatives. Case studies showing how community networking and participation could change situations for the better were also shared. Around 500 participants attended the workshop from all over the state which included joint forest management and eco-development committee members, forest officials, NGOs and staff from other government departments.

#### **1.5 Young Masters Programme on Sustainable Development**

The Earth's resources are limited and we need to remember that we have to use them judiciously and responsibly to live our present lives so that our coming generations can also enjoy them. To make this happen requires changes in our behaviour, attitude and lifestyle, and Education for Sustainable Development (ESD) is being perceived as capable of building capacities of individuals, especially students, to bring this about. Hence imparting ESD to young people should be the foremost responsibility of every school not only in our country but every nation of the world. Keeping this perspective in mind, Young Masters Programme (YMP), a course on sustainable development, was initiated in 1999, by the International Institute for Industrial Environmental Economics (IIIEE) at Lund University, Sweden, as a global web-based education and collaborative learning



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network. YMP is an international, online educational programme ñ free of charge - for upper secondary students and their teachers. The course material is divided into 18 missions. Each mission takes about a week to complete and requires 3-5 hours of work. The whole course normally takes about 20 weeks.

CEE joined hands with ISYMP to implement the pilot phase of the course in India, which was formally launched on October 14, 2012 at the ESD Conference organised by CEE during Convention on Biological Diversity COP 11 in Hyderabad, India. The implementation kicked off with an internal workshop with CEE North acting as the secretariat for the programme. At each location, teachers' orientation was conducted for initiating the programme. During the year, the following activities took place under YMP.

#### **1.5.1 Feedback and Planning Workshop, Ahmedabad**

CEE, in collaboration with International Foundation for the Young Masters Programme (ISYMP), Sweden organised a two day Feedback and Planning Workshop at Lucknow in May 2013. The main objective of this workshop was to consolidate the pilot learning and experiences and to discuss the next phase of CEE-YMP in India. With more than 45 participants including student groups from various cities, teachers, CEE team and YMP team, the workshop discussions have been very fruitful and achieved the envisaged objectives. All the pilot phase participant students were given certificates for the course while the teachers as mentors received appreciation certificate.

#### **1.5.2 Pilot Phase**

Under the partnership, CEE has made YMP a demand driven programme, and many schools are approaching CEE requesting to be a part of this global endeavour and to capacity build their students by not only discussing socio-environmental and economic issues but also becoming a part of the problem solving process. With 362 students forming 83 student groups from 34 schools spread across 13 cities of the country - Ahmedabad, Bengaluru, Bhopal, Bhubaneswar, Dehradun, Delhi, Guwahati, Hamirpur, Hyderabad, Jammu, Lucknow, Patna and Wayanad - CEE has made a positive impact through the pilot phase of implementation of CEE-YMP in India. The experiences of the pilot phase have been enriching and provide many useful learnings which are being incorporated to build the next phase of the programme to take YMP across the country.

#### **1.5.3 Documentation of Experience**

A CEE-YMP Facebook page was facilitated regularly with the involvement of student groups. Apart from the course, YMP students participated in various events and activities on various environment related days and weeks. CEE team has documented the pilot phase experience city wise in detail and shared the report. A brochure for YMP in India has been developed to promote it in the schools.

#### **1.5.4 YMP ñ CEE Himalaya**

CEE facilitated the Young Masters Programme in schools of Uttarakhand, Himachal Pradesh and Jammu and Kashmir. The pilot phase of

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the programme included four schools in the Himalayan states of Uttarakhand (Sri Guru Ram Rai Public School, Shahastradhara Road), Jammu & Kashmir (Government Girls' Higher Secondary School, Mubarak Mandi, Jammu) and Himachal Pradesh (Him Academy Public School, two branches at Vikas Nagar and Hira Nagar, Hamirpur). Each school had one group comprising 4-5 students led by a teacher who took part in the programme, Members of CEE Himalaya team acted as co-teachers for all four schools in order to facilitate the learning process and to make environment education more hands-on and exposure-based for the students of the mountain region. All the schools took keen interest in the YMP and completed their activities, and have been awarded certificates for successfully completing their environment missions.

## 1.6 Anandshala

The Rural Programmes Group of CEE developed the Anandshala concept - an enabling initiative to make primary education accessible, relevant and fun-filled for rural children - for the first time in 2002 and implemented the same with the support of UNICEF.

In July 2013, Anandshala project was launched with the support of a UK based NGO, Reach to Teach. This time, it goes beyond the school, and draws inspiration from the Right to Education Act. Thus the Anandshala Plus extends itself to ensure that every child in its project area has access to school. The project now aims to provide an empirical model of mass scale replication of Anandshala efforts.

It is being implemented in all 107 rural government primary schools in Halvad Block of Gujarat and 40 schools in four districts in

the tribal belt of South Gujarat, reaching out to about 30000 children, including about 8000 children who are either not going to school or highly irregular.

In four blocks of South Gujarat, the project is being implemented through four Gramshilpis (CEE trained cadre of youth, based in rural areas and committed to rural development) who are based in the villages and are working on the educational issues in their respective blocks. Each Gramshilpi works in 10 villages and is supported by five educational volunteers who are local educated and concerned youth. In Halvad, the project has been able to procure the active participation and support of the government system and therefore Cluster Resource Coordinators (CRCs) are looked upon as critical agents of change and master trainers in the project.

The **goal** of the project is to strengthen and enhance the quality of primary education and develop replicable methodologies to mainstream Non-School Going and Highly Irregular children in the formal education.

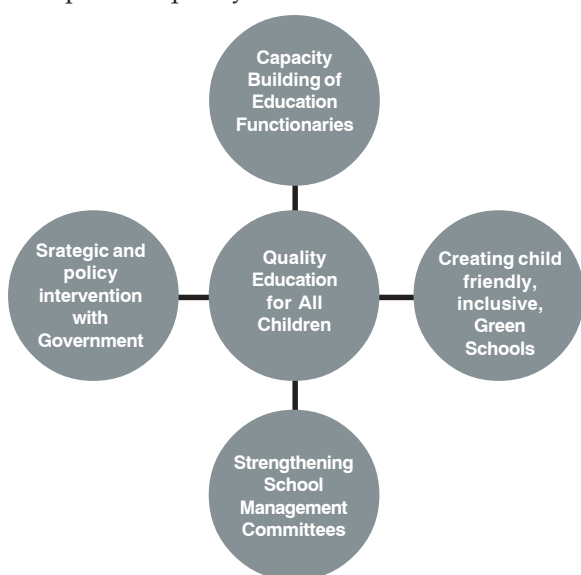
### The objectives of the project are:

- To develop customised empirical models to address the issue of non school going (NSG) and Highly Irregular children;
- To create a conducive physical environment as a basic requirement for quality education in the government primary schools of the project area;
- To develop and demonstrate methodologies to make School Management Committees functional in all the project villages and empower them to play a proactive role in ensuring quality education in schools and fulfillment of RTE provisions;

- To develop tools, techniques and strategies to capacitate educational functionaries for effective quality education.

The project addresses the challenge of providing quality primary education to all the children in the project area by targeting two major aspects of the issue:

1. Creating enabling mechanisms to mainstream all the children in the age group of 6-14, and
2. Ensuring that when they do reach the school, the schools are welcoming and can provide quality education.



### 1.6.1 Key Activities and Achievements

During the year, the following activities were undertaken and completed under the project.

**Baseline Survey:** To get a real picture of the number of children who are out of school, migration pattern and livelihood scenario, and understand the range of factors that act as barriers between the school and the child, a

detailed door to door survey was conducted. More than 25000 families have been surveyed. Based on the responses, children who are in the age group of 6 to 14 years and are NSG or HI have been identified and a computerised database of such children has been prepared.

**Defining Age Appropriate Attainment Level (AAAL)** to understand and prepare a road map of child's learning progress was undertaken. Accordingly for each grade appropriate age, attainment levels were defined. A progress tracking tool to track the learning progress of the children through various interventions, was also developed.

**Intervention planning and implementation:** Based on the data and feedback from ground, interventions were initiated. Special training programme, residential facility, transport facility, liaison with administration, self-instructional material, various community mobilisation events and children's events are some of the activities conducted to motivate and prepare children for school.

#### (a) Special Training Programmes (STP)

These were initiated in all the 40 schools in South Gujarat by which children who are not going to school or are highly irregular are given education in a joyful manner.

#### (b) Residential Facility

In Kakshala cluster of South Gujarat (district Dang), educational input is given at the SSA run residential facilities, which intervention has sustained the children in the camps and helped in mainstreaming students. Ten such camps have been supported by the project.

In Karutha cluster (district Surat), Gramshilpi Ashok runs a hostel for children from nearby villages. A community member donated his

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land for the construction of hostel, which was completed with material and labour support from the local community and external donations, and now hosts 45 children. The project supports food and accommodation needs for 25 children, while the rest of the children are being supported with the help of the community and external donations.

In Khoba Cluster (district Valsad), Gramshilpi Neelam has initiated residential facility for the children staying in interior villages where there is no upper primary school. Twenty such children stay with Neelam and have been enrolled in the Khoba primary school. The hostel at Khoba has been initiated with external funding.

#### **(c) Community Mobilisation**

In all the 147 villages of the project, a range of activities were conducted with the aim of creating a basic awareness about the programme, understanding the complexity of the issue and concerns of the community, and motivating parents to encourage children to enroll and regularly attend the school. Important days were celebrated with community involvement.

#### **(d) Resource Centre**

A resource centre has been established in each cluster, to provide educational support to various stakeholders, including children, coming to the STP: EVs, schools, teachers, and community members. The resource centres have organised events like Balmelas (children's fairs), training for teachers and EVs, full day theme based programmes for NSG children and so on. A number of community events such as cultural programmes and rallies have also been organised by resource centres

involving students and other youth of the village.

#### **(e) Self-Instructional Material**

In Halvad Block, there are a large number of tribal families who move in as agriculture labour. Ensuring that their children get education is a challenging task. There are several factors which hamper their access to school including distance, economic and socio-cultural reasons. Moreover the situation gets more complex as these families migrate back according to the agriculture cycle and it is not certain if they will come back to the same place later; therefore it is difficult to track them. Some of them also migrate locally even during the season to meet the agriculture needs of different farms.

CEE as part of the project has been working on a multipronged strategy including:

- Providing a list of such children and farmers who hire farm labours, to the Block Resource Coordinators so that administratively their access can be ensured
- Developing and disseminating a series of self-instructional material (SIM) for facilitating self-learning among the children; through SIM the project has reached more than 800 children.
- Supporting such children through resource centre activities and cluster sessions to aid the learning process
- Conducting exposure tour for Cluster Resource Centre coordinators to prepare them as master trainers

The yearlong interventions in five blocks have created a positive learning environment



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within the community. In South Gujarat more than 550 non school going children from 40 villages have started going to school. In Halvad, a database of children and farmers has been created which can now be used to conduct a follow-up and ensure that migrant children are also enrolled in the mainstream education.

### **1.7 Global Citizenship for Sustainability (GCS) Marine - Project 1600**

The GCS project team at CEE Australia undertook the following tasks related to the planning, development and implementation of the Global Citizenship for Sustainability (GCS) Marine - Project 1600 between April 1, 2013 and March 31, 2014

#### **1.7.1 Project Planning**

The timeline, methodology and approach required for the GCS Marine Project was discussed and put together in consultation with GCS project staff in CEE India. Inputs received from CEE India were thus integrated early in the planning process. A project brief and a project plan were developed at this stage. The project plan was based on research and review of CEE Australia's previous project Global Communities for Sustainability.

#### **1.7.2 Resource Development**

Resources for the GCS Marine Project 1600 were developed through research and review of CEE Australia's learnings from the implementation of the earlier project Global Communities for Sustainability. During the reporting period, the invitation letter and application forms for the schools, and the learning journey of the project were developed.

Information on the project for general briefing, publicity and promotion has also been developed. This information was used in the GCS Marine flyer and was also uploaded onto the CEE Australia website.

A list of resources on marine and coastal biodiversity conservation relevant to Australia has been collated with details including the organisation's name and website where applicable. The participating schools in GCS Marine Project will be able to use these resources while undertaking their project activities.

#### **1.7.3 Development of a Database of Schools and Organisations in Queensland**

A list of potential participants (schools), including contact details, within Queensland was identified through research and CEE's networks. A list of organisations with key contacts within Brisbane, whose objectives align with coastal biodiversity conservation, has also been identified and collated through research.

#### **1.7.4 Networking and Outreach**

The identified organisations working for or associated with education for coastal biodiversity conservation were approached through emails and telephone in order to provide information about the project and to inquire if the organisation could support and assist the GCS Marine Project by putting CEE Australia in touch with their school contacts, promoting the project through their networks, assisting schools in undertaking project activities on marine biodiversity and sustainability, as well as providing access to relevant literature or research findings on marine biodiversity conservation.

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The CEE Australia team contacted various not-for-profit, local government and state government organisations in Queensland through emails, phone calls and associates.

### **1.7.5 Meetings in Brisbane, Queensland**

CEE's Executive Director Dr. Prithi Nambiar and Project Officer Alina Tamrakar visited Brisbane in June 2013. The objectives of the visit were to establish initial contacts with local government, environment and sustainability networks and other organisations and resource persons, who could assist with the planned project implementation of GCS Marine in Queensland, and to identify contacts within the schools network in Queensland.

The CEE Australia team met with Brisbane City Council (BCC) staff members who provided valuable information about their current school education programmes - Green Heart School and School Leadership Programme - and also provided information about their Education Centres which runs a range of educational programmes for schools.

The team then met with the Global Learning Centre (GLC), which is a not-for-profit community organisation dedicated to supporting education for justice, peace and sustainability. Karena Menzie, Education Consultant, provided information on potential partner organisations for GCS such as Great Barrier Reef - Reef Guardian Schools and Professional Teachers Association. Karena stressed the relevance of GCS for the new Australian Geography curriculum which focuses on cross curriculum priorities such as Asian studies and sustainability. In view of GLC's experience and interest in supporting Professional Development for teachers, CEE invited GLC to organise a joint workshop to

introduce GCS Marine to the school teachers in September.

The CEE team then met with Healthy Waterways, which is a not-for-profit, non-government, membership-based organisation working to protect and improve waterway health in South East Queensland (SEQ). Rachel Nasphezes, Senior Community Engagement Officer provided information about the Healthy Waterways programme and objectives. She added that Healthy Waterways monitor, plan and implement waterway health actions via regional collaboration among members from government, industry and the community.

The CEE Australia team also met the Australian Association for Environmental Education (AAEE) Queensland Chapter. AAEE is Australia's peak professional body for Environmental Educators which advocates for Environmental Education and promotes best practices. It contributes to skills development among educators across the country and internationally. Jo Kelly, Queensland Co-convenor and Nichole Stephenson, Liaison Officer suggested Science Teachers Association, Geography Teachers Association and Marine Teachers Association might be interested to be involved in the project. Jo also added that AAEE QLD is happy to share CEE's information on their blog/ newsletter and its local networks

Following the meeting, BCC, GLC and AAEE also provided a list of additional organisations within Queensland for the CEE Australia to follow up in the future.

### **1.7.6. Workshop in Queensland**

Following the meeting in June, a full day workshop on Environmental Education and Sustainability in Australia Curriculum was

jointly organised by CEE Australia and GLC on September 21 in Brisbane. Over forty representatives from different organisations participated in the workshop.

Attendees included well known environmentalist and winner of the 2011 National Australian Environmental Educator of the Year Award, Cam Mackenzie, as well as pre-service teachers from Queensland University of Technology and Griffith University; a lecturer from Central Queensland University, staff from Sunday Creek, Nudgee Beach, Stanley River and Amaroo Environmental Centres; education officers from Caritas, the Australian Youth Climate Coalition and Keep Queensland Beautiful as well as teachers from Pine Rivers Kindergarten, Sta Aidan's Anglican Girls school, Sandy Strait State School, St Joseph's Bardon, St Francis Xavier Runaway Bay, St John's Anglican School, Rangeville State School, John Paul College, All Saints Anglican School, Browns Plains State School, St Peters Lutheran College and Kelvin Grove State College.

This professional learning workshop was designed to familiarise the participants, especially the school teachers, on how to link environmental education and sustainability in the existing Australian Curriculum.



The opening session of the seminar featured Keynote speaker Mr. Kartikeya V Sarabhai, Founder Director of CEE. In his speech, he focused on the concept of Education for Sustainable Development (ESD) and the importance of environmental education for global citizenship.

The workshop introduced the CEE project: Global Citizenship for Sustainability (GCS) Marine ñProject 1600 for the first time in Australia. GCS Marine, an initiative of CEE is an action based research project focused on coastal biodiversity conservation between schools in Queensland, Australia and Gujarat, India.

Mr. Kartikeya Sarabhai and Dr. Prithi Nambiar, Executive Director of CEE Australia, jointly presented the project concept and methodology to the participants. This session was designed to introduce the project to the school community as well as to encourage the future involvement of schools in Queensland. Alina Tamrakar, Project Officer, GCS Marine registered expressions of interest from potential participants at the workshop.

The next session presented by Karena Menzie and her colleagues at GLC focused on resources to support teaching of global



citizenship through the Cross Curriculum Priority of Sustainability. A talk on creating a world of wonder through the Australian Geography Curriculum was also presented by staff from the Global Learning Centre.

The workshop also included other practical sessions to showcase the programmes and resources available to support environmental education in the Australian Curriculum.

The workshop was organised at Bulimba State School which was the winner of the Premier's Sustainability Awards 2013. A tour of the school was also organised so that the participants could observe various sustainability measures adopted by the school.

Samir Vora, Chief Operating Officer & Executive Director, Adani Australia also attended the workshop.

### **1.7.7 Meetings in Sydney and Brisbane**

CEE Director Mr. Kartikeya Sarabhai and CEE Australia Executive Director Dr. Prithi Nambiar met key resource people during the former's visit to Australia. They met the Consulate General of India Mr. Arun Kumar Goel at his office in Sydney and briefed former Australian High Commissioner to India, John McCarthy, about the GCS Marine Project.

While in Brisbane, the CEE Australia team also met with Cam Mackenzie, a well-known environmentalist and winner of the 2011 National Australian Environmental Educator of the Year Award; Tarra Martel, Education Officer from Keep Australia Beautiful; Prof. Arun Sharma, Deputy Vice-Chancellor (Research and Commercialisation) of Queensland University of Technology and Global Learning Centre (GLC) team. All the parties expressed their keen interest and willingness to work with CEE on the GCS Marine Project.



The CEE Australia team also had a productive meeting with Samir Vora, Chief Operating Officer & Executive Director, Adani Australia at his office in Brisbane.

### **1.7.8 Preparation for the Launch of GCS Project**

CEEA is actively working with GLC to plan the launch of the GCS Marine project, where GLC will play the important role of promoting the event through their network of schools and wider community and will work with the CEE Australia project team towards planning the launch and organising registration as well as a briefing event in Brisbane.



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The GCS Marine project is expected to be formally launched in Queensland shortly after the start of the new academic term in Australia in 2014.

#### **1.7.9 CEE Australia Board Meeting and AGM**

During CEE Director Mr. Kartikeya Sarabhai's visit to Australia, CEE Australia's Board Meeting and AGM was organised in September 2013. Board members Kartikeya Sarabhai, Prithi Nambiar and Vinod Daniel were present during the meeting and AGM. CEEA Project Officer Alina Tamrakar also attended both the meetings.

##### **Some of the highlights of the meeting were:**

- GCS brand created by CEE Australia had the potential to become a major international brand which allowed schools to connect globally. COP11 highlighted the importance of marine biodiversity conservation giving rise to the idea of a GCS phase focused on marine conservation.
- GCS Marine will supplement the sustainability programmes that CEEA has been running earlier. Another variant, GCS Wild flight is being planned to connect schools on issues along the global migratory paths of birds and other wild life.
- The ADANI group was funding the GCS Marine project.
- About 11 schools have signed up in India and we are looking at involving 10-11 schools from Queensland as well.
- Meetings with ADANI and other organisation were planned in Brisbane.

- The GCS Marine would give CEEA another 1.5 years to work towards securing other sources of financing.
- CEE India had identified food, water, energy and health as the major areas of interest to explore and implement projects on.

#### **1.7.10 GLC Centre Coordinator's visit to CEE India**

The visit of GLC Centre Coordinator Karena Menzie to CEE India added a new dimension to the project. As Karena Menzie's PhD research is in the field of active citizenship, in November 2013, she used her research allowance to fund a trip to India to visit CEE and gain a greater understanding of the Centre, its work, the Global Citizenship for Sustainability project as a whole and Marine Project 1600 in particular. During her visit, Karena travelled with CEE staff Pramod Sharma, Janki Teli and Annie Gregory to visit Aditya Birla Public School in Bharuch and Tapti Valley International School in Surat to speak to their teachers and students about their GCS work to date. This insight into the Indian side of the project was absolutely invaluable in developing a deeper cultural understanding and gaining a clearer picture of the global perspective. It is highly recommended that such cultural and educational exchanges are incorporated as a key foundational step in developing GCS Marine in other countries and contexts. Karena also met with key personnel from GCS Marine Project 1600 sponsor Adani and visited Adani Vidya Mandir. This gave her the opportunity to develop a greater understanding of the company and for all parties to have frank and productive discussions regarding the concerns

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surrounding sustainable development in the Queensland context. Again such face-to-face discussions are an important component of developing GCS Marine so that all involved have a strong collective understanding of the objectives of the project and any challenges it may face.

#### **1.7.11 Partnership with Great Barrier Reef Marine Park Authority (GBRMPA)**

CEE and GLC connected with the Great Barrier Reef Marine Park Authority (GBRMPA)'s Reef Guardian Schools Programme as part of the GCS Marine Initiative. Having similar objectives of conserving marine biodiversity, Reef Guardian Schools Programme has been a logical partner to the project and has actively promoted it to their member schools.

#### **1.7.12 Recruitment of Schools**

GLC approached several schools along the Queensland coastline to introduce GCS Marine to them. As the Reef Guardian Schools programme has also shown enthusiasm in undertaking activities in the area of marine conservation, the member schools were also invited to be a part of Project 1600. Reef Guardians is the education initiative of the Great Barrier Reef Marine Park Authority (GBRMPA). GBRMPA Project Manager Ms. Carolyn Luder helped in collating a list of high schools located at appropriate intervals along the Queensland coastline in consultation with Karena from GLC. The invitation to these schools resulted in an immediate response from some of them while others on the list were followed up with phone calls. Schools that had expressed their interest were then sent the official invitation and application from CEE Australia. Many schools were interested but simply did not have time

to fully understand the concept or talk to relevant teachers. Several of these schools have asked to consider a longer lead time for the next project cycle.

#### **1.7.13 GCS Marine Project 1600 Launch Event**

The GCS Marine Project 1600 launch event was held during March 2014 at Queensland University of Technology (QUT) Gardens Point, Brisbane.

CEE Australia liaised with QUT staff to finalise the venue for the event day. A guest list and programme was collaboratively created between CEE Australia, CEE India and GLC. CEE Australia sent out email invitations to all the guests.

The event started with informal discussions and introductions which were followed by a formal launch held at the Boardroom. CEE Australia Executive Director Dr. Prithi Nambiar hosted the session and welcomed all the guests to the launch of the new project. She provided a brief summary of the previous phases of the GCS project which was earlier called the Global Communities for Sustainability. CEE Director Mr. Kartikeya Sarabhai presented an overview of the new phase of the GCS Project which is strongly focused on the highly relevant concept of Global Citizenship. The speech was followed by remarks from the GLC Centre Coordinator Ms. Karena Menzie who shared her experiences at CEE India. Well known environmentalist Cam Mackenzie spoke of the importance and value of adding an international perspective to the way Australian school students understand sustainability. He emphasised the richness of the experience that can be provided by practical sustainability education initiatives like the GCS.

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At the end of the session, CEE and GLC representatives signed an MoU relating to their partnership on the GCS Marine 1600 project.

Over thirty participants attended the launch including school teachers, GLC staff and management, QUT, Earth Charter and Mr. Samir Vora and staff from the Adani Group. The event concluded with a tour of the Cube by QUT's Anne Brant. The Cube is a visually spectacular and innovatively educational feature and a tour of this remarkable facility proved to be a fitting end to the proceedings.

#### **1.7.14 Media connection**

Karena Menzie coordinated with Poppy Masselos, the Education writer at the Courier Mail and organised an interview with CEE Director Mr. Kartikeya Sarabhai. Poppy Masselos will be featuring a two page article about GCS Marine Project 1600 in the education section in Courier Mail.

#### **1.7.15 GCS Marine Project 1600 Teachers Training Day**

The teachers training day was held during March 2014. Mary-Ann Pattison, Director of the Nudgee Beach Environment Centre generously offered to provide the venue for the training day and cater for the event. The training was designed to familiarise and provide detailed information about the project to the teachers.

The session started with acknowledgement of country and housekeeping by Mary-Ann Pattison followed by welcome and introductions of CEE and GLC personnel and participants (giving the context of their school) by GLC Centre Coordinator Karena Menzie.

CEE Director Mr. Kartikeya Sarabhai presented the overview of CEE and Global Citizenship for Sustainability. Karena Menzie talked about Educating for Global Citizenship. Pramod Sharma, Programme Coordinator, CEE India presented the Learning Journey in details of the various steps of the project and how to execute them.

The next session presented by Alisa Cleary from GLC focused on Implementing Project 1600 - reflecting on the opportunities and constraints in the respective school context. Pramod Sharma then gave an update on the GCS happenings in India and this was followed by an explanation of the steps of the learning journey using video recordings from earlier phases of the GCS by Dr. Prithi Nambiar. Alina Tamrakar, Project Officer, CEEA took the participants through the online tour of the GCS website and demonstrated various steps of the project from registration of schools to uploading the information on to the website.

Mary-Ann Pattison took the group on an extremely interesting and well explained exploratory walk around the mangroves adjoining the Environment Education Centre at Nudgee Beach. After the exploration walk, the participants joined the discussion with three schools in India via Skype. This gave the teachers a general idea of the kind of projects the schools in India are engaged in and how they are implementing their projects. CEE Director Mr. Kartikeya Sarabhai concluded the session with a final round of questions.

The Nudgee Centre proved a perfect venue for the training as it gave participants the opportunity to experience Mary-Ann's extensive expertise and a guided boardwalk

through the mangroves. Carolyn Luder of GBRMPA also attended the day to gain further insight into the project in order to assist participating Reef Guardian schools. In consultation with GLC and CEE India, a programme was developed for the training day that took participants from the 'big picture' of global citizenship to consideration of how Project 1600 might work in their particular context. This face-to-face opportunity was an important element in the establishment of the Project as it not only gave participants the opportunity to learn the context and logistics of the project but also provided the chance to meet CEE and GLC staff and fellow participants. Although there were some technical difficulties, concluding the day with the Skype exchange with Indian teachers gave a visual reminder of the global context of the project. By the end of the day, there appeared to be a general feeling of being part of a team. As there was a lot packed into one day, follow up questions and some challenges will be overcome by phone and email as a personal relationship is in place. The first of these appears to be the fact that EQ schools cannot access Skype and many websites are blocked for them; so solutions to overcome these ICT difficulties will have to be found.

### 1.7.16 Research

CEE Australia and India and GLC worked together in developing a draft survey for teachers and students to complete as a baseline at the start of the project. Karena attended a session with John Dungan, Director of Research at the Queensland Department of Education and Training (DETE). There are very strict guidelines regarding research in EQ schools so the team will need to carefully consider what data they wish to collect and how they will collect it and submit an application to DETE.

Subsequently, CEE Director Mr. Kartikeya Sarabhai and CEE Australia Executive Director Dr. Prithi Nambiar also updated the CEE Board members, Vinod Daniel, John McCarthy and Syd Smith on the developments on GCS Marine Project 1600.

## 1.8 ESD Rice

ESD Rice is a project initiated by Asia-Pacific Cultural Centre of UNESCO (APCCU) and UNESCO, and supported by Japan Funds-in-Trust. It is an Asia Pacific ESD programme 'Linking Field Initiatives to Global Partnerships'. CEE is the Coordinating Institution in India for this programme which is being conducted in six countries, viz. India, Indonesia, Japan, Philippines, Republic of Korea and Thailand.

### Why Rice?

Rice, a common staple food in many parts of the Asia-Pacific region, is an entry point and a tool to view and learn about the community and the world in the perspective of sustainability. For example, cultivation of rice has been affected by and has consequences from globalisation of the economy, climate change and loss of biodiversity. Through rice, learners learn and understand these challenges, think of solutions and take actions for positive change to create a sustainable community and a sustainable world. This common theme enables easier interaction across schools, and links the various local and regional contexts and issues of ESD.

In India, rice is the staple food especially in the south, east and northeast regions. Various factors have affected rice cultivation – climate change, economic and agricultural policies, globalisation and the consequent change in lifestyles and eating habits, changes in land



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use patterns and others. This project provides an opportunity to students to understand the various challenges faced in this field and explore solutions with the help of the community and institutions in their neighbourhood.

The ESD Rice Project seeks to promote and improve the quality of ESD and build a foundation for an Asia-Pacific regional network of schools to work for sustainable development, through action and constant learning. It also encourages schools to find and enjoy more opportunities to learn in and with the community. It promotes collaborative learning with schools and persons from different countries as well as the broadening of the range of partners within the community, leading to utilisation of resources outside the school.

In the pilot phase, the participating schools/ countries explored the concept of ESD through various aspects of rice – economic, cultural, social, food security, eco-consciousness, etc.

### **Overall Objective**

To promote school- and community-based ESD practices in Asia and the Pacific by building an international collaborative network of the ASPnet.

### **Immediate Objective**

To nurture and link:

- School- and community-based ESD
- Interactions and exchanges among participating schools

### **Expected Outcomes**

- Development and dissemination of ESD good practices through school and community based partnerships

- Linkages and communication among participating schools and communities, leading to partnership and networking

In India, nine schools from three states – Andhra Pradesh, Kerala and Tamil Nadu – are participating in this project.

### **Activities**

An International Workshop on ESD Rice was organised in Ayutthaya, Thailand, during December 16-19, 2013 in which representatives from Coordinating Institutions and participating schools from the six countries participated. The Indian team consisted of CEE staff from Kerala and Tamil Nadu and the Principal of one participating school.

The workshop oriented the participants on the aims and requirements of the project, the overall themes within which to conduct school level projects and the various aspects of collaborative learning which is the mainstay of the project. School and country plans were prepared during the workshop to be refined later through discussions at school level. The participants also visited a school in Ayutthaya which had participated in the pilot stage of the project and observed the various activities related to rice being taken up by the students there.

## **1.9 Create to Inspire School Programme**

CEE has partnered with Nokia India and GIZ along with UMCPL as associate partner, to engage 100 schools of Ahmedabad in project-based learning and action-based outreach programme for the community. It would involve students of classes 7-9. The programme duration is of two years and

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focuses on the themes of sustainable urban consumption like E-waste, Transport, Energy and Water. A key objective of this programme is to equip teachers with tools and help develop capacity for creative expression to improve and strengthen environment and sustainability action including E-waste management in schools and the community.

Activities in this programme started in December 2013 with a training workshop for teachers from 17 schools of Ahmedabad. As an action plan emerging out of this workshop, teachers along with their students undertook a research project on e-waste. Students conducted household surveys covering every zone of the city. The survey helped analyse e-waste generated in every zone and studied the recycling behaviour of those surveyed. Over 2500 students participated in the survey recording more than 6000 responses. Along with conducting the survey, the students also interacted with community and kabadiwalas to make them aware about e-waste and its right way of disposal. They further compiled the data from all the surveys to understand the hazards involved in improper e-waste disposal. Combined with results collected from other schools, the data provided CEE with essential information on electronic material use in Ahmedabad households.

The programme strategy hopes to bring other Gujarat board schools and municipality schools on board for the next academic year.

#### ***1.10 Urja Chetana: Energy Conservation and Waste Management Education Programme in Schools of Kolkata and Nearby Districts***

The Waste Management Group at CEE Kolkata is implementing the Urja Chetana

programme in 20 schools, in and around Kolkata, with support from the Calcutta Electric Supply Corporation (CESC) under their Corporate Social Responsibility programme.

Urja Chetana seeks to generate awareness and action on energy conservation and waste management amongst students, who would carry the learnings to their communities. This programme aims to provide a platform for the schools to undertake action projects through community outreach and help children to share and expand their understanding, and thereby bring about change that can significantly reduce wastage of energy and effectively manage waste.

Under the programme, two teacher training programmes with a focus on energy and waste management education were conducted. Detailed waste audits were conducted in the participating schools. The students were provided hands-on training on composting and e-waste paper recycling, for which starter kits were also provided to the schools to initiate the activity on their premises. Students carry out continuous monitoring and updation of the waste management activities in the school.



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Exposure visits to a thermal power plant and waste recycling unit were also organised for the students under the programme. Various competitions and community outreach activities were conducted under the programme to ensure students gained awareness beyond school. Information, Education and Communication materials on waste management were developed under the project.

### **1.11 Eco-Schools Programme**

Eco-Schools Programme is a global sustainable schools programme which is being implemented in about 60 countries globally. The programme follows a seven step methodology which can be adopted by different schools. The programme in India is being adopted for the primary level (classes 1-5) and was formally launched on February 25, 2014. Presently material development and marketing of the programme are being undertaken.

### **1.12 School Programmes in Maharashtra**

#### **1.12.1 Western Ghats Special Eco-club Scheme**

This scheme focuses on the Northern Western Ghats region in Maharashtra commonly known as the Sahyadri range and is supported by the Environment Department, Government of Maharashtra.

In 2013-14, 227 teachers from as many schools were trained in nine workshops held in August and September 2013. The workshop module included a mix of approaches including classroom sessions using audio-visuals, group work and presentations, field visits and hands on sessions on nursery and grafting techniques and planning the school activities.

The schools conducted a range of activities in the thematic areas of Biodiversity, Water, Energy and Waste Management. Over 10000 students participated in the activities under this scheme. Students identified and collected over 50000 seeds of 35 plant species, developed nurseries to raise about 5500 seedlings and undertook plantation of 4000 saplings. Eco-clubs manufactured 17850 cotton bags and 3100 paper bags mostly using old cloth and news paper. They distributed these bags in schools, families, among the village community and also sold to medical and bakery shops and other vendors. Other quantitative achievements include construction of 43 low cost check dams, preparation of 390 eco-friendly Ganesh idols, and collection of 40 bags of herbal offerings, converting them to manure and abating water pollution.

An activity to understand Protected Areas and Devrai or forested groves of local deities (often called as Sacred Groves) was initiated in 2013. Four two-day workshops were organised in Sindhudurg, Kolhapur, Ratnagiri and Thane districts at sites of Devrai, where 25 teachers and 77 students participated to learn their natural and cultural significance and changes over time as well as biodiversity survey methods and conservation actions which eco-clubs can undertake. For schools near protected areas, a special workshop on understanding the governance and administration structures of PAs, the Forest Department, relevant laws and rules was organised at Radhanagari WLS, District Kolhapur. Six teachers and 18 students participated in this workshop.

#### **1.12.2 Shekru Mahotsav**

Shekru Mahotsav (Giant Squirrel Festival) was organised by the Environment Department

with schools under the Scheme, to celebrate the First Western Ghats Fortnight from July 1-15 to mark the inscription of Western Ghats as World Natural Heritage Site by UNESCO. Shekru is the State Animal of Maharashtra.

The event was inaugurated by the Environment Minister Mr. Sanjay Deotale by planting a mango tree at the Yashwantrao Chavan Academy of Development Administration, signifying the importance of tall trees with dense and spreading canopies in the habitat of the Shekru. Mr. M. K. Rao, Chief Conservator of Forests, Pune Wildlife Division spoke to the students and teachers about the conservation issues of Shekru and its habitat.

Mr. Chindu Dhondu Asavale, who in the 1990s, was the local guide in Bhimashankar for the eminent scientist Dr. Renee Borges in her surveys and scientific research on the Indian Giant Squirrel, was felicitated by the Minister. In the morning session of the event, students participated in games, quiz, film screening and an exhibition on the Sahyadris, ecology of the Giant Squirrel, threats and conservation efforts.

#### **1.12.3 Cluster Level Camps by and for the Eco-clubs**

Two clusters of schools under the scheme in Akole taluka of Ahmednagar district and Sakri and Navapur talukas of Dhule and Nandurbar districts respectively, took the initiative and organised special residential camps for eco-club students and teachers from their talukas. Twenty seven teachers and 81 students participated in the Kalsubai-Harishchandragad and Mhasadi Camps. Host schools provided residential and food arrangements, and all the schools pooled their resources including food grains to collectively

manage these camps. CEE resource persons provided specific inputs in sessions on grafting, experience sharing and during field visits. Participants climbed Mount Kalsubai, the highest peak in Western Ghats in the state and using GPS marked the height of the peak at 1646 meters.

#### **1.12.4 Republic Day Parade Tableau on Scheme**

A tableau was developed to showcase the features of the Western Ghats in Maharashtra, this scheme with its logo and various activities such as cotton bag making and special grass artifacts made by eco-club students. This tableau attracted public attention at the first such Republic Day parade organised by the Government of Maharashtra on Marine Drive, Mumbai.

#### **1.12.5 Participatory Study and Conservation of Genetic Diversity of Mango, Fanas, Jambhul and Karvanda of the Sahyadri range**

In 2011-12, a participatory study and conservation of genetic diversity of Mango (*Mangifera indica*), Fanas (*Artocarpus heterophyllus*), Jambhul (*Syzigium cumini*) and Karvand (*Carrissa carandas*) of the Sahyadri range was initiated with the eco-clubs and local people. Over 80 varieties were studied in the first year. The study continued this year. Students documented 205 varieties of mango and 18 varieties of Fanas, 24 varieties of Jambhul and 28 varieties of Karvand along with associated traditional knowledge, practices and stories. Over 400 students, teachers and villagers participated in mango grafting workshops. A nursery was developed with 74 varieties of mango saplings raised and plantations undertaken.

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### 1.12.6 Environment Service Scheme

The Environment Department, Government of Maharashtra initiated in 2011 the Environment Service Scheme (ESS) for secondary and higher secondary schools in the state. The objective is to provide students an opportunity to explore and understand their local environment and natural resources, and undertake action projects for local environmental improvement and conservation. An ESS unit is expected to identify a three-hour weekly slot for these activities and projects.

CEE has been appointed as the state nodal agency for the pilot phase of the scheme for three years. The scheme is currently being implemented in 50 schools in 12 districts of Maharashtra, i.e. Nagpur, Chandrapur, Amravati, Yavatmal, Jalna, Aurangabad, Jalgaon, Nashik, Pune, Solapur, Ratnagiri and Thane. In the first year of the programme, schools identified one local environmental issue and prepared their plans for exploring and addressing it.

In the year 2013-14, a process of delving deeper into the issues and discussing the identified problems with the local communities was facilitated through special thematic training programmes for teachers and a series of two day camps for students. Local NGOs, experts and citizens were invited to share their views and guide the ESS units. The activities taken up in the year include:

- Solid Waste Management - 17 ESS units collected 245 kg of e-waste from 17 Gram Panchayats. The collection and disposal of e-waste is a problem area requiring further work under the educational module for solid waste management as the actual management practices for this sector are not well established. This is being taken up

in discussion with experts and the local communities.

- Biodiversity ñ Over sixty two thousand seeds of local and indigenous varieties were collected and 991 local tree saplings were planted. Fourteen ESS units planted 644 medicinal plants at school and community locations. Thirteen ESS units made 190 artificial bird nests and observed nesting behavior in these.
- Environment friendly festivals ñ Fifteen ESS units made 40 Ganesh idols; 18 ESS units took out cracker free rallies and celebrated a cracker free Diwali; 21 units made environment-friendly Holi colours out of local materials and 10 units sold this at an event organised by the Environment Department at Mantralaya, Mumbai.
- Energy - Seventeen ESS units undertook a study of firewood; 20 units conducted energy audits of schools and nearby community; a residential school put up a biogas plant in their school under the Energy theme.
- Water ñ Twenty two ESS units conducted water audit for their community, four of them constructed vanrai bandhara, 10 units conducted a survey on waste water management and constructed 14 soak pits under water theme.

### 1.13 Clean Hussain Sagar Campaign (HSL)

CEE AP implemented the Clean Hussain Sagar Campaign with the support of the Hyderabad Metropolitan Development Authority (HMDA) in 50 schools located in HMDA jurisdiction. The objective is to create awareness among the students on the importance of lakes in urban areas, especially



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Hussain Sagar, focusing on four themes: Importance of Lakes in Hyderabad, Hussain Sagar Lake and its Environs, Issues and Concerns, Solid Waste Management (SWM) in school premises and Impact of Using Plastics (plastic carry bags). The programme involves two hours contact sessions in schools, formation of HSL Club, development and execution of action plans in schools, visit to lakes and evaluation and felicitation of the Best Performing School.

#### **1.14 Nature Education Programmes ñ CEE Karnataka**

##### **1.14.1 Nature Education Programme at BRT Tiger Reserve**

CEE Karnataka, in collaboration with Biligiri Ranganatha Temple (BRT) Tiger Reserve, organised a Nature Conservation Education Programme for rural school teachers students at Budhipadaga camp site at BRT Tiger Reserve, with an aim to sensitise teachers and students about nature, forests, wildlife and conservation. As part of this initiative, the programme was organised for one batch of 35 teachers and two batches of 35 students each in 2014. The approaches followed in these programmes include field visits and exploration of forest and wildlife; interaction with the field staff of the forest department on tiger conservation; interactive sessions on forest and wildlife related topics followed by hands on activities; and screening of wildlife related documentaries.

##### **1.14.2 Conservation Education Programme in Rural Schools of Cauvery Wildlife Sanctuary**

CEE Karnataka, in collaboration with Cauvery Wildlife Sanctuary, organised a Nature Conservation Education Programme for teachers and students from rural schools

situated on the fringe areas of the sanctuary. This programme aimed at sensitising teachers and students about nature, forests, wildlife and conservation. As part of this programme, participants were given an opportunity to explore the surrounding forest and wildlife; interact with the field staff of the forest department on nature conservation; attend sessions on forest and wildlife related topics; and try hands on activities. In total, three teacher training programmes and seven nature education camps for rural school children were executed, covering about 400 participants at two camp sites of the Forest department namely Gopinatham Mystery Camp and Bheemeshwari Nature Camp.

#### **1.15 National Painting Competition on Energy Conservation**

A National Level Painting Competition for Children was conducted by CEE with support from Petroleum Conservation and Research Association (PCRA). CEE teams all over the country facilitated the competition process which reached over 20000 children across India in several locations. CEE's NGO partners planned several events as part of this, while in some locations the painting competitions were planned around Energy Saving Workshops.

The screening process was twofold. Paintings were screened in the Regional Offices and the best entries sent to the Secretariat in Delhi. In all, 21 paintings were shortlisted for review at the National Jury, out of which three were chosen as winners. Since the Jury also recommended that the rest of the entries be considered for consolation prize, this was put up to PCRA by the Secretariat who agreed to reward the rest of the 19 shortlisted participants with a consolation cash prize after assessing the quality of the paintings.



## **2.1 Journal of Education for Sustainable Development (JESD)**

The Journal of Education for Sustainable Development, a peer reviewed international academic journal published by SAGE twice a year, is being managed and edited by CEE Australia since 2012. It serves as a forum to present research, debate ideas and showcase success stories in the emergent field of ESD. Two issues – 7.1 and 7.2 – were published during the current year.

## **2.2 Regional Centres of Expertise (RCEs) for ESD**

### **2.2.1 RCE Lucknow**

RCE Lucknow has established a network for ESD in partnership with eight organizations. The key areas of action that RCE Lucknow focuses on are biodiversity conservation and school education programmes. The target groups for these activities are students, teachers, NGOs, communities, youth and others.

CEE North, as the nodal point for RCE Lucknow, initiated the following ESD activities with its partners in the region:

- School events based on various environment related themes were organised in which students and teachers from the schools of Lucknow participated.
- Projects were developed and guided for post graduate students from various Universities on the key themes of RCE Lucknow.

### **2.2.2 RCE Pune - Reflections**

RCE Pune was initiated in January 2007, building upon an existing network of individuals and organisations concerned about diverse issues of society and environment, such as livelihoods, urban planning and governance, education, housing, waste, water, transportation and biodiversity.

A reflection of the networking at RCE Pune was undertaken in September 2013 under the guidance of the RCE Secretariat at the United Nations University Institute of Advanced Studies (UNU-IAS). The reflection helped articulate what people have found of value in the network and in acting together. Partners mentioned learning, encountering differing viewpoints, seeing interconnections, development trust, enhanced professional and civic efficacy, and being inspired. The reflection revealed that the concept of a local network about sustainability is itself a huge strength. Forums created or supported (or even inspired) through the RCE network, such as environment reporting, participatory budgeting, local area design and planning exercises, and innovative outreach through exhibits and activities, were cited as examples of what has gone well so far.

On governance of the network itself, it was felt that knowing each other, and having many occasions to meet and act together on specific issues of concern, are key aspects. Of particular importance is a dedicated and consistent Secretariat that keeps up the momentum and holds the documentation of the work done. RCE Pune has always been a very light structure relying on associational

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activity, with the anchor organisation (CEE) organically assuming a secretariat role while maintaining a neutral role.

For future work, partners have stressed the need to continue the collaborative work on deepening participatory and multi-stakeholder local governance, using tools like social audits, public dialogues, information support centres, and on governance of the network.

### **2.3 Environmental Studies Course**

CEE designed and offered an Environmental Studies course to the undergraduate students of Business Administration in the B K Majumdar Institute of Business Administration (BKMIBA), and of Information and Communication Technology in the Institute of Information and Communication Technology (IICT), both located in Ahmedabad University. About 150 students participated in this course which had 45 hours of contact sessions spread across November 2013 to March 2014.

The course had five modules including basic modules which introduced students to topics such as ecology, biodiversity, development and related processes, impact of environment and development and sustainable development. A subject specific module - Business and Sustainability in case of BKMIBA and ICT and Sustainable Development in case of IICT - was offered which helped in improving the students' understanding about linkages between their area of studies and sustainable development. Students undertook course-end projects on ten themes related to campus sustainability. This enabled them to implement the learnings of the four modules and gain hands-on experience while trying to address the

sustainability issues of their institution/campus.

### **2.4 UNESCO Chair on Education for Sustainable Development and the Human Habitat**

CEE and CEPT University of Ahmedabad, in cooperation with UNESCO, the Swedish International Centre for Education for Sustainable Development (SWEDESD) and ICLEI – Local Governments for Sustainability, have established the UNESCO Chair on Education for Sustainable Development and the Human Habitat in October 2013 at CEE for the duration of four years. Mr. Kartikeya Sarabhai, Director CEE, has been elected as the chairholder. The aim of this programme is to strengthen the understanding of Education for Sustainable Development in human habitat and urban studies through activities such as developing and delivering courses for postgraduate programmes, short term training programmes, research and institutional development.

As a part of this programme CEE conducted the following courses in collaboration with CEPT University and other partners:

#### **2.4.1 Streets for People: A Course for Students of Architecture, Urban Design, Planning**

CEE and Sustainable Urban Mobility Network (SUM Net), in partnership with other organisations and colleges, developed a course on sustainable transportation, with a special focus on participatory street design. CEE took the initiative to introduce and conduct this course in three higher education institutions – CEPT University in Ahmedabad as an elective unit, B N College of Architecture as a part of the urban landscape design

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studio and PVP College of Architecture as a six day workshop in Pune in the academic year 2013-2014.

#### **2.4.2 CEPT Summer School 2014: Planning for Resilient Cities**

This course was offered as a part of the CEPT University's Summer School Programme to postgraduate students. Students visited Ahmedabad and Surat in India, and Amsterdam, Rotterdam and the Hague in the Netherlands to understand vulnerability and resilience response of these cities to climate change. In this process, students got an opportunity to interact with practitioners and academicians.

#### **2.4.3 CEPT Summer School 2014: Biodiversity in Urban Areas**

This course was also offered as a part of the CEPT University's Summer School Programme to postgraduate students. It introduced students to the basics of biodiversity, helped them to understand the interaction of biodiversity with urban environment and their impact on each other. Through project work, students explored ways of incorporating biodiversity in urban design which help in its conservation and coexistence in urban areas.

Today, more than half of India's population is under the age of 25. This provides a huge scope to

involve young people and youth organisations in sustainable development at local, national and

regional levels and take these learnings to a global level.

CEE's Youth Programmes, through various initiatives, endeavour to empower youth with relevant information, knowledge and skills, and create enabling conditions for youth to actively engage as change agents for sustainable development.

### **South Asia Youth Environment Network (SAYEN)**

SAYEN ([www.sayen.org](http://www.sayen.org)) brings together youth with a vision of promoting sustainable development in South Asia. Set up in July 2002, SAYEN is linked to TUNZA, UNEP's strategy for engaging young people in environmental activities and the work of UNEP. The network aims to promote, enhance and support youth participation in environmental activities, broaden the participatory process for sustainable development by inclusion of youth, and inculcate environmental awareness among the youth.

CEE hosts the Secretariat for SAYEN, which has membership from Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. An organisation in each of these countries has been identified as the National Focal Point (NFP) to help facilitate SAYEN activities. The network has over 5000

members and partnerships with several organisations in the region. UNEP's Regional, Sub-regional and National Youth Advisors support the SAYEN Secretariat in planning and implementing activities in the region. This gives youth the opportunity to hone their leadership skills and for SAYEN, a rich pool of young creative individuals.

During this year, SAYEN members represented South Asia in important international conferences held by UNESCO. The SAYEN Secretariat was invited to provide inputs to the South Asia Environment Outlook publication being developed by Development Alternatives with support from SACEP, SAARC Secretariat and UNEP. SAYEN Secretariat also participated in the post Rio +20 discussions held by the same team, providing youth perspectives in the discussions.

## **3.1 Youth Meets and Conferences**

### **3.1.1 SAYEN Regional Meet, 2013: Youth Stake in the Post 2015 Agenda**

The 8th SAYEN Regional Meet, supported by UNEP and hosted by CEE, India and the Royal Society for Protection of Nature (RSPN), Bhutan was held in Thimphu, Bhutan from July 24-26, 2013.

The Regional Meet hosted over 30 youth from South Asia, who came together to learn more about the Post 2015 Agenda and voice their opinions on issues of concern to the South Asian Region. Over three days, the participants were introduced to important and relevant concepts such as Gross National Happiness (GNH), Post Rio+20 and the Post 2015

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Agendas being discussed in the UN forums, through expert lectures and presentations. They also went on a field trip to the Royal Bhutan National Park to understand biodiversity conservation efforts undertaken by the Bhutan government, and the role of education in these initiatives.

On the third day of the Regional Meet, the youth together developed a declaration to serve as an input from SAYEN youth to the Post 2015 development agenda consultations. The main themes covered by the declaration include sustainable consumption and food security, water and biodiversity issues, which are some of the major concerns of the region. This process aims to strengthen youth participation from the region in Post 2015 consultations.

Another key outcome from the Regional Meet was the SAYEN Action Plan - 2013 to 2015 (<http://www.sayen.org/SAYEN%20Action%20Plan%202013-15.pdf>), an outline of the work SAYEN youth have committed to undertake for the next two years and the Youth Advisor elections, customary for every Regional Meet, where new youth are elected by their peers to serve as Regional and Sub-Regional Advisors for the next two years.

Following an intensive three days, the Regional Meet concluded with a fun filled cultural night, giving the youth an opportunity for cultural exchange.

### **3.1.2 CEE Model United Nations (MUN)**

The CEE Model United Nations (CEEMUN) 2013 event was jointly organised by SAYEN, CEE and eMUN for Change on July 17-18, 2013 at CEE, Ahmedabad. Around 80 students

from different schools and colleges of Ahmedabad participated in this two day event. CEEMUN is set up as a platform where students get an opportunity to debate on crucial sustainability issues such as the conservation of biodiversity, food security, renewable energy sources and poverty. This platform offers opportunities for sensitising youth on several global issues.

The event focused the discussions by forming three committees, namely, UNDP, UNEP and FAO. Each participant was placed in any one of these committees and was assigned a country, depending on their preference. The participants in the UNDP Committee debated on Sustainable Poverty Reduction Programmes; those in UNEP Committee on Renewable Energy Initiatives and Incentives; the FAO Committee discussed Food Security and Malnutrition; and the participants in the International Press covered the discussions of the Committees. An orientation session was organised on July 16 to enable them to understand the basic working procedures of these committees and also to clarify participants' doubts.

The opening ceremony of the CEEMUN was graced by senior officials from the Ministry of Environment and Forests and the Director of CEE. The honourable guests, in their respective addresses, highlighted the importance of and the need for establishing a dialogue among different countries on tackling international issues

## **3.2 Initiatives by SAYEN Members**

### **3.2.1 Environmental Sustainability Walk in Pakistan**



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SAYENís Pakistan Chapter organised a walk on Environment Sustainability in Mansehra city inviting participation of students from colleges and local organisations. The Assistant Commissioner Mansehra and the Honourable Minister for Forests were guests of honour and led the walk, creating awareness about the need for local initiative in taking action towards sustainability.

### **3.2.2 Fortnightly Youth Discussion Forum in Nepal**

Concerned about the excessive brain drain being witnessed by Nepal, SAYENís National Youth Advisor, Nepal, with the help of his colleagues, initiated a fortnightly discussion forum in September 2013. In its first session, the forum named, Youth on discussion, saw participation from 16 students from the Institute of Agriculture and Animal Science, Paklihawa Campus.

The topic for the first session was 'You and Agriculture'. Students discussed their concerns and suggested solutions and looked at how they saw themselves contributing to the scenario, not just as students, but also once they graduate from their course and start working in the field.

## **3.3 Celebration of Days and Events**

### **3.3.1 Earth Day 2013**

EE, in association with the Times of Indiaís Ahmedabad edition, SAYEN and The Earth Day Network, celebrated the Earth Day eve at CEE campus on April 21, 2013. The event was organised to create awareness about the Earth Day and saw participation of over 350 people from around Ahmedabad. Many activities

were organised to engage all age groups. The event also connected to the Times of Indiaís campaign around rivers called 'My City My River', in four cities of Gujarat state. The following activities were conducted on this day:

### **Environmental Quiz**

An Environmental Quiz was organised for studentsí teams from local schools to test their knowledge on themes such as climate change, food, culture and heritage, 'My City My River' and environment in general. The quiz also introduced the students to issues of sustainability and hoped to increase their interest in it.



### **Photography Workshop**

The Photography Workshop dealt with the environmental aspect of photography. The 60 attendees ranged from the age group of 13 to 60 years. The workshop started with a general introduction to photography and an insight into its environmental aspects.

After the general introduction, the class was allowed to choose one from the four themes:

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1. Climate Change and Awareness
  2. People and Hope
  3. Spread Awareness
  4. Beautiful Precious World

Thus, four groups were formed and asked to shoot photos in CEE campus, after which the members had to discuss in their groups and select two best photographs.

A representative from each group was called to explain their photographs, while the session expert discussed the quality of each.

The workshop was organised mainly to build capacity of the participants, encouraging and enabling them to click meaningful pictures for the photography contest being organised by SAYEN, supported by the Earth Day network.

### **Youth Discussions and Creative Expression**

While the kids were indulging in fun activities revolving around the theme of environment, the youth were engrossed in serious discussions on over 10 topics in the panel discussion organised specifically to give them an opportunity to voice their opinions on environment and sustainability.



Writing Pledge

To give them a taste of written expression, an open letter to the government was also being drafted simultaneously, which they could add to through the declaration wall installed at the venue. For the more creative, a doodling cum pledge wall was also designed where they could pledge their commitment for their river in writing or through doodles.

### **Art from waste**

An art installation was made from waste newspapers. Everybody was encouraged to participate in this activity which aimed at stressing the importance of the idea of the 3 R's - Reduce, Reuse and Recycle.

By involving people to create an art piece out of waste paper, the volunteers from eClay Club, a team of young architects and planners, now involved in experimenting with different materials, stressed on the fact that it is all about perception. The very newspapers which are generally perceived as waste after they have served their purpose, can be turned into a thing of art, if only we change our mindset.

### **3.3.2 World Environment Day 2013**

As part of SAYEN's endeavour to celebrate the World Environment Day (WED) innovatively and effectively, each year we try and celebrate it in a different manner. This year the Secretariat at Ahmedabad and interns decided to celebrate the WED by making a short film, interviewing youth from the city, testing their knowledge on environmental issues and asking for their opinions about the same. In an effort to set an example for youth across the region that raising awareness for a cause does not require a lot of funds, the interns came up with an interesting film made entirely by them. The film was later

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uploaded on SAYEN TV and also featured in the E-Newsletter in order to make it reach as many youth as possible.

### **3.3.3 International Day to Combat Desertification and Drought**

The United Nations General Assembly acknowledged the fact that desertification and drought are a global problem as they affect all regions of the world and require the combined effort of individuals and organisations to work together in curtailing this problem. Taking this approach forward, SAYEN organised a creative story writing competition for young writers on the theme 'Healthy Soil Harvests Healthy Life' through the SAYEN website.

### **3.3.4 International Youth Day**

On the International Youth Day, orientation workshops were organised by SAYEN and CEE Delhi in two colleges in Delhi. The workshops introduced the participating students to issues of sustainability and their participation in action through eco-club activities in the college.

An agreement to set up a Sustainable Campus initiative at MG Science College in Ahmedabad was signed by SAYEN Secretariat on this day.

### **3.3.5 Car Free Streets Photography Competition**

Keeping in mind the growing pollution caused due to an ever increasing population of cars on our streets and the inconvenience caused to people for whom streets were actually meant, SAYEN, in association with the Sustainable Urban Mobility Network of India (SUM NET) and CEE, organised the Car-Free

Streets Photography competition, where participants had to submit pictures of car-free streets around India or depict what their ideal car-free street would look like through photographs.

The competition was open to all Indian Nationals above 18 years of age through the SAYEN website. It received a great response and after almost a month long process of submissions and careful evaluations, the winners were awarded cash prizes and certificates and featured on the SAYEN website and E-Newsletter.

These pictures along with others submitted during the competition were also used as reference and examples for a module developed by SUMNET and CEE for CEPT University, Ahmedabad on Car-Free Streets.

## **3.4 Internships**

As part of capacity building of youth, CEE provides internship opportunities to them in its projects and activities across the country. The interns are placed with CEE Groups/ Offices in India and are involved in ongoing projects. The minimum period of internship is 30 working days and the maximum is a year.

The Internships Secretariat housed with the Youth Programmes Group together with the Personnel division worked on streamlining of the Internship process at CEE, to improve the support provided to the interns applying to CEE. In 2013-2014, 134 youth including three international interns from Germany were provided internship opportunities across CEE offices. CEE continued its association with Kurve-Wustrow and the Welwärts Volunteering programme in Germany for hosting German volunteers at CEE offices.

### 3.4.1 Interns at CEE North

Two interns - from Symbiosis Law School, Pune and Tata Institute of Social Sciences (TISS) - joined CEE North during the year for two months internship and worked on various ongoing programmes including Paryavaran Mitra and Children's Forest Programme, to get hands-on experience of field level activities and documentation.

### 3.4.2 Interns at CEE Central

The following interns joined CEE Central during the year and worked on its ongoing programmes.

### 3.4.3 Interns at CEE Himalaya - Dehradun Office

CEE Himalaya Dehradun office facilitated two interns: Mr. Nygel Varghese from Delhi and Dr. Soe Tun Kyi from Myanmar, who worked



Painting Display - UMANG Programme

SrNo.	Name	Period	Institution/ Organisation
1.	Vadeendra Joshi	22/5/2013 - 19/6/2013	Symbiosis Law School
2.	Annika Mirchandani	6/5/2013 - 6/6/2013	Foundation for Liberal And Management Education
3.	Viha Rai	6/5/2013 - 6/6/2013	Foundation for Liberal And Management Education
4.	Ritika Kapoor	19/8/2013 - 18/11/2013	Fergusson College
5.	Lili Vangaever	16/9/2013 - 20/12/2013	University of Brussels and Worldwide Infosoft Systems Pvt Ltd.
6.	Deenaz Raisinghani	9/12/2013 - 15/1/2014	Dept of Communication Studies, UoP
7.	Arzoo Rickhy	2/2/2014 - 31/3/2014	Foundation for Liberal And Management Education
8.	Kaustav Som	27/2/2014 - 15/4/2014	Symbiosis Law School

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on three projects - GoI-UNDP-GEF project on the conservation of Medicinal and Aromatic Plants; JSW Foundation supported Rebuilding Faithi, Uttarakhand Reconstruction, and Umang dealing with post-disaster psycho-social care and support; and Plan India project on distributing relief aid to flood affected villages of Uttarakhand.

### **3.5 Sustainable Campus Initiative**

Youth being the driving force of the network and the focus SAYEN has on action towards sustainability, the Sustainable Campus Initiative was a natural progression. Youth in the region spend the maximum amount of their active life on their college campuses and the most effective way of introducing them to action towards sustainability was through this initiative, wherein college students will form a core group and work towards making their campus sustainable through awareness drives, action projects, and others.

Envisaged for colleges across South Asia, the pilot phase is already underway in Ahmedabad, with a few colleges like HL College of Commerce and M.G Science College having signed an MoU with SAYEN and initiated activities. Bringing more colleges into the fold is the agenda for the upcoming year,

while the pilot phase is planned for one year with over 10 colleges in two cities in India. After the pilot phase, the vision is to work with over 100 colleges across India and simultaneously spread the initiative to other countries in South Asia.

### **3.6 Handprint Challenge: Sustainability Challenge for Colleges in Asia-Pacific**

Supported by UNEP, this challenge aims at promoting sustainability in college students across Asia and the Pacific by asking students to form teams (not exceeding 10 members per team), identify sustainability issues on their campus and propose an action plan to be implemented by them in the upcoming months. Top teams will be given a seed funding of up to USD 1000 each, to implement their action plans and carry out sustainability activities on campus. The reports from these teams will be uploaded and updated on the SAYEN website and their individual profiles on the contest page. The teams with the largest Handprint in their region will be adjudged winners and awarded the Handprint flag in an award ceremony at the end of 2014. The challenge is to be launched in mid-July, 2014. The project was approved by UNEP in March 2014.



# Experiencing Nature

4

## 4.1 Sundarvan ñ Nature Discovery Centre

### 4.1.1. Visitors

Sundarvan received 80696 visitors, including 48325 children and 32371 adults, during the reporting period. A total of 9738 students and 1346 teachers from 191 schools visited during this year.

### 4.1.2 Reptile Awareness Programmes

Reptile Awareness Programmes, including the Snake Awareness Programme, were conducted for the park visitors every Sunday. It was carried out for 30 schools on other days, in which about 1400 students and teachers participated. A half day workshop on reptile awareness and rescue was conducted for 50 staff members of TATA Motors on June 14. Sundarvan staff regularly attends reptile rescue calls from the public. One hundred and eighty three snakes and other reptiles were rescued during this period.



Participants from TATA Motors attending Sundarvanís Snake Rescue Programme

### 4.1.3 Discover Bats Programme

Sundarvan has about 300 bats roosting in its premises. In order to create awareness about bats, Sundarvan conducted four bat awareness programmes for school students and the general public. About 102 school children and teachers and 84 persons attended these programmes.

### 4.1.4 Other Programmes

One day programmes for students were conducted on request at Sundarvan: for three batches during May, and for one school each in December 2013 and February 2014. In all, 162 children participated in these programmes. In collaboration with India Post, Gujarat Circle, Sundarvan jointly organised a philately exhibition on the theme of Indian Wildlife during June 5-9, 2013, as part of the World Environment Day, which was open to the public. Various activities such as exhibition of wildlife photographs, photography workshop, face/body painting, snake and bat awareness programmes, expert talk on reptiles, nature watch at Polo forest and quiz and drawing competitions for schools were conducted during October 2-8, 2013, as part of Sundarvanís Wildlife Week celebrations. To celebrate World Wetlands Day, a bird watching trip was organised to Thol Bird Sanctuary on February 2, 2014.

Apart from the above activities, networking and partnership projects have been established with the Rotary Club and Ahmedabad Builders Association to expand the centreís education programmes and improve its visitor interpretive facilities.

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## 4.2 Nature Camping

Nature Camping and Nature Watch programmes, which were part of Sundarvan earlier, have been shifted to the Rural Programmes Group since last year. The project aims to inculcate a sense of appreciation for nature among the participants, make them aware of the diversity in nature and motivate them towards conserving the same. During the year a number of adventure camps, nature camps and nature watch programmes were organised where nature lovers from different professional and academic backgrounds as well as age groups participated. Camps were conducted at Mt. Abu, Balaram, Purna and Hingolghadh sanctuaries, Marine Camps at Beyt Dwaraka, and Desert Camps at the Little Rann of Kachchh (LRK).



Dolphin citing at Beyt Dwarka

During the year, Mountain Camps were conducted at Mt. Abu for 10 batches, including two adventure camps. More than 650 participants attended these camps. One group from a rural area with less privileged children was partially sponsored by well-wishers of Sundarvan Camps Programme. Besides trekking, nature watch and camping activities, sloth bear sighting as always remains one of



Adventure Camp at Mt Abu

the most thrilling experiences of the camps at Abu.

Six camps were organised at Sembalpani within Balaram Sanctuary, Ambaji. Sembalpani is a remote tribal area with deciduous forests near the famous temple town Ambaji. These camps provided experiences like long trekking, rock climbing, rappelling and bird watching along with glimpses of tribal culture. About 250 children participated in these camps.

Marine Camps, attended by 35 batches with 1554 participants spread over 92 days of camping, were a hit as in earlier years.



Desert Camp - visit to Agariyas

Watching dolphins, corals and a myriad of other marine life with plenty of algal growth make it a memorable camp for everyone.

For the first time CEE conducted Desert Camps at CEE Halvad site in February 2014. About 143 students in four batches attended the camps which were spread over 19 days. The desert is a different world spread over thousands of kilometres with a unique ecotone and its own unique biodiversity. Watching herds of wild ass running across the vast open patch of landmass extending to the horizon is an unforgettable sight. The desert also hosts a variety of avifauna including flamingos, cranes and other birds.

Other camps organised include the Forest Camp in Purna Sanctuary in South Gujarat, Monsoon Camps at Hingolghadh, and camps to explore the ravines of Mahi River near Vasad.

Our Watch Programmes also continued this year. Besides the Sarus Watch at Kheda, Wild Ass Watch, Chinkara Watch and Black Buck Watch programmes were conducted in

Ghudkhar. For each of these, informative booklets were prepared for distribution among participants.

In all, 65 batches of nature camps were organised involving more than 3300 participants.

### **4.3 Experiencing Nature Camps**

#### **4.3.1 CEE Karnataka**

CEE Karnataka organised Nature Education Camps for 19 schools and two colleges covering over 1050 participants in 23 batches. These camps were conducted at Dandeli Anshi Tiger Reserve, Cauvery Wildlife Sanctuary, Nagarhole and Bandipur Tiger Reserve, Parambikulam Tiger Reserve in Kerala and Sinharaja Rainforests in Srilanka. In these camps participants explored the wilderness and experienced nature first hand.

#### **4.3.2 CEE North**

##### **4.3.2.1 Nature Camp at Sandi Bird Sanctuary**

To launch the nature camp programme in Uttar Pradesh, CEE North organised its first camp at Sandi Bird Sanctuary in November 2013, in association with Uttar Pradesh Forest Corporation (UPFC). The UP Forest Corporation has been designated as the nodal agency for promoting ecotourism in the state in which nature camps for school students is one of the key components. CEE North is actively involved in this initiative to promote environmental education in schools through nature camps.

A group of 30 students along with three teachers from Kendriya Vidyalaya and City

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Montessori School, Lucknow participated in the camp. The sanctuary is located 150 km from Lucknow in Hardoi district. The Range Officer of the Sanctuary briefed the students about the sanctuary's key features and informed them about the do's and don'ts. The CEE North team then conducted the entire camp with various educational activities. Three more camps were organised at Sandi and Nawabganj Bird Sanctuaries. More than 120 students joined the day long nature camps at these sites.

#### **4.3.2.2 National Nature Camping Programme**

Understanding the need for connecting students with nature, the Ministry of Environment and Forests has initiated a National Nature Camping Programme (NNCP) for eco-club schools. In February and March 2014, CEE North, with support from UPFC and UP Forest Department, organised five nature camps for NGC schools of Lucknow, Uttar Pradesh and West Champaran, Bihar. The school groups attended the three days and two nights nature camping programme at Suhelwa Wildlife Sanctuary, Balrampur and Katarniaghat Wildlife Sanctuary, Bahraich, Uttar Pradesh. Around 240 students and 10 teachers from seven NGC schools participated in the five camping programmes. The objective of the camps was to provide eco-club members an opportunity to visit landscape and experience the rich flora and fauna, thereby developing a concern for their conservation as citizens.

This camp of three days and two nights was full of activities that students enjoyed every moment. The students were introduced to interesting features of the sanctuary, various

eco-systems, threats they faced and conservation measures being taken. Have fun and learn games enabled them in understanding nature better. The evenings were filled with cultural activities and quizzes around a bonfire. This was a first time experience for most of the students and it rejuvenated their mind and soul and sent a vibration of enthusiasm through them while in the midst of the green, comforting and pleasing environment.

### **4.3.3 CEE Andhra Pradesh**

#### **4.3.3.1 Nandanavanam**

CEE implemented Nandanavanam Nature Education in Parks, programme supported by Greater Hyderabad Municipal Corporation (GHMC), Hyderabad with coordination support from Sarva Shiksha Abhiyan (SSA)/ Department of Education. This programme was implemented in 100 schools of Ranga Reddy and Hyderabad Districts. The aim of the programme is to create awareness on the importance of trees, biodiversity and environment through park based environment education activities, and developing a school garden with both ornamental and medicinal species, as well as trees

#### **Process:**

- GHMC has 15-18 major parks in the city. Government or private schools located 1-3 km from the park were selected to participate in the programme.
- The teachers in charge in the selected schools were trained in the biodiversity and other aspects related to the park using a Manual developed for the purpose.

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- The trained teachers brought students from Std 8 and/or 9 to the parks and conducted the activities suggested in the manual. Schools completed the activities over two or three visits to the park in an academic year based on its convenience. Entry to the parks was free for these schools.
  - During their visit to the parks, CEE staff facilitated and supported the teachers.
  - Green Clubs were formed in each school and were given responsibility for the development and maintenance of a garden. CEE staff oriented the Club members on the development and maintenance of gardens.

CEE regularly monitored, facilitated and supported the schools to successfully implement the programme. At regular

intervals, materials like wall magazine (containing information on the environment and biodiversity related issues) and newsletters to share the happenings in the programme with other schools) were sent to the schools.

#### **4.3.4 CEE Chhattisgarh**

School children from the villages surrounding Achanakmar Biosphere have been attending nature camps to experience nature first hand and have also learnt the cultural folk dance of the region. They even perform for tourists at the cultural centre attached to the Forest Department guest house during weekends. With the help of CEE, women run SHGs and volunteers, these children are disseminating knowledge and awareness about the need and importance for forest conservation.



## 5.1 ENVIS ñ Environmental Information System

ENVIS (Environmental Information System) is a programme of the Government of India, Ministry of Environment, Forests and Climate Change (MoEF&CC). It is a decentralised network of distributed subject oriented centres integrating national efforts in environmental information collection, collation, storage, retrieval and dissemination. It comprises a Focal Point at the MoEF&CC and ENVIS centres set up in different organisations/ establishments in the country, dealing with specific subject matter areas pertaining to the environment.

CEE hosts the ENVIS Centre on Environmental Education (EE) and manages information in the domains of Environment Education (EE) and Education for Sustainable Development (ESD). The following mechanisms have been set up at CEE for fulfilling the ENVIS responsibilities and objectives.

1. Database (E-Library) ñ ENVIS collection at CEEISC
2. Education for Change newsletter
3. Green Teacher website
4. Query Response Service

### 5.1.1 Database (E-library)

The E-library is an online repository of books, journals and articles related to environmental education and sustainable development. The information will be useful for educators and practitioners in the field. The objective of this effort is to develop and maintain collections online and use them to support the needs of users.

### 5.1.2 Education for Change: ENVIS Newsletter on Environmental Education

This is an annual publication of the ENVIS Centre on Environment Education. It features authored pieces by experts from different fields, experiences, interviews and reviews of organisations, books, abstracts, reports, events, etc. relevant to biodiversity, EE and ESD themes.

A 32- page, four colour annual issue of the Education for Change newsletter was brought out for the year 2013-14. The newsletter covered various articles on EE and ESD. The main focus of the newsletter this year is conservation awareness and actions. The print run for the annual issue for 2013-14 is 2000 copies. The soft copies of current and past issues are made available on [www.ceeenvvis.nic.in](http://www.ceeenvvis.nic.in) (ENVIS website on EE managed by CEE) and <http://education-for-change.blogspot.com>.

### 5.1.3 CEE ENVIS Website

CEEís ENVIS site [www.ceeenvvis.nic.in](http://www.ceeenvvis.nic.in) compatible with the NIC platform has been developed to meet the ENVIS objectives more effectively. The structure of the website and its section and sub-section pages has been developed and are being updated regularly. The site is currently hosted on <http://www.ceeindia.org/nicenvvis/enduser/home.aspx> for trial-testing.

### 5.1.4 Query Response Management Services

The Query Answer Management Service is another significant function of the ENVIS Centre. The ENVIS Secretariat solicits enquiries across regions and strives to answer them.

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During the reporting year, the ENVIS Secretariat has answered 90 queries relating to various subject categories.

## **5.2 The Srushti Mitra Awards 2013**

The Srushti Mitra Awards were instituted by the Environment Department, Government of Maharashtra in 2010. The objective of the Awards is to promote environmental awareness among people and students and encourage them to take positive actions that benefit the environment, On behalf of the Environment Department, CEE is managing the implementation of the award since its inception.

The 3rd edition of the Srushti Mitra Awards was launched on World Environment Day 2013, with the inviting of entries. Entries were invited under eight categories from students and the general public in Maharashtra. The categories for the Awards were as follows:

- Environment Project
- Environment Bal Sahitya
- Environment Slide Show
- Environment Photographs
- Environment Slogan
- Eco Club
- Case Study on Environment Education
- Women's Contribution in Environment Conservation

Evaluation Criteria were set as per the objectives of the Awards and its various categories. Sixty three entries received Srushti Mitra Awards, and another twelve entries received certificates of appreciation. The winners were felicitated by the Environment Minister, Maharashtra.

A poster exhibition of the winning entries was designed and conducted to showcase the success stories of the awarded projects and creations. This exhibition was displayed at the Awards function for visitors and the media. A souvenir book *Abhivyakti Srushti Mitranchi 2013* and *SMA Calendar 2014* were also launched at the awards function. The souvenir book is a compilation of winning entries under eight categories and entries that received appreciation along with a calendar consisting of photographs of Srushti Mitra Awards of the past three years.

## **5.3 CEE North - Fortnightly Features on Environment in DLA newspaper**

CEE North has joined hands with the DLA Group of Publications by signing an Memorandum of Understanding (MoU) under its Paryavaran Mitra initiative. Under the association, CEE as knowledge partner, contributes a one page fortnightly feature on environmental and sustainable development issues and concerns for the DLA newspaper. DLA has a daily midmorning Hindi newspaper that reaches out to over 3.68 readers every day, predominantly in Western UP with its editions from Agra, Meerut, Jhansi and Delhi.

As undertaken, CEE contributed an article every fortnight adding up to 24 articles during the year. The articles revolved around the environmental days in each month and their themes. Apart from creating awareness on contemporary environmental issues, this was an attempt to share ideas for handprint action to a wider group of people and to encourage them to adopt or act on some of these ideas in their lives.

## 6.1 Protected Area Interpretation and Ecotourism (PAIE) Group

### 6.1.1 Home of the Tiger Interpretation Centre at Similipal Tiger Reserve, Odisha

An Interpretation centre themed around a tiger's life and habitat was conceptualised, designed and installed at Jashipur, near the Similipal Tiger Reserve in Odisha. The centre has several rooms with different themes such as predators, other animals co-existing with the tiger, a tiger's life, elephant ecology, tribal and other forest dwelling communities, and threats and conservation measures. The above said themes are depicted through large dioramas with 3D animal models, photo-text panels and a touch-screen interactive. Wayside signages have been installed on the campus of the centre which give information about some of the important fauna of Similipal Tiger Reserve.



Similipal Interpretation Centre

### 6.1.2 Sukhna Lake Nature Interpretation Centre

Sukhna Lake is an artificial lake created in 1958, and is situated in the city of Chandigarh.



Sukhna Interpretation Centre

Apart from being a great recreational spot which receives a large number of visitors, the lake has significant biodiversity too.

The Sukhna Lake Nature Interpretation Centre at Chandigarh has been set up for the purpose of informing the visitors about the lake, its conservation and ecological values, the importance of wetlands, also forest ecology. On display in the Centre are various exhibits such as photo-text panels, dioramas and life-size animal and bird models, high quality audio-visual interactive, murals, and so on. A bilingual (English and Hindi) interactive touchscreen complements the other exhibits and interactive and informs visitors about the ecological and conservation values of Sukhna Lake.

### 6.1.3 Other Projects

Currently, the installation of the outdoor exhibits is going on at several locations: the Melghat Tiger Reserve, Gorewada Lake, Nagpur and Bor Wildlife Sanctuary.

The Interpretation Centre built at Chilika Lagoon, Odisha by CEE is being revamped and is currently in the installation stage.

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Interpretation Centres at Bison Lodge, Pachmarhi and Gorumara National Park, West Bengal are under development.

#### **6.1.4 Water is Life!**

As part of India's celebrations of the International Day for Biodiversity, an innovative poster was developed for the Ministry of Environment and Forests. As the theme declared by the United Nations, for the year 2013 was 'Water and Biodiversity', the poster was designed to depict a snapshot of how all life forms on Earth, including human beings, are connected by water.

While a common poster would be useful for passive learning and recapitulation of facts, this poster was specially designed and invites active participation of the viewers (viz. students). It was designed in two colours, but with the potential to come alive when the students actively participate and fill-in colours, and give in a title to it in their own language.

was taken to ensure that the poster serves as a useful resource for teachers to help their students learn about: the importance of water for all life forms and the precious nature of water. Activities provided on the reverse of the poster encourage students to identify and name the local natural features which lends the activity a familiar context. A competition was also conducted for school students by the Ministry of Environment and Forests.

#### **6.1.5 Barnawapara Wildlife Sanctuary, Chhattisgarh**

CEE had setup an interpretation centre at Barnawapara Wildlife Sanctuary with the Forest Department in the State. As some maintenance was required in the kiosks installed, a team of technical experts from CEE Ahmedabad travelled to Raipur, identified the flaws and conducted successful repairs.

## 7.1 Research Project on Mining Sector in Goa

The Department of Science, Technology and Environment (DSTE) had entrusted with CEE Goa State Office a two year research project on Assessing the Quality of Environmental Impact Assessment (EIA), Compliance of Environmental Clearance (EC) Conditions and Adequacy of Environmental Management Plans (EMP) of the Mining Industry in Goa.

CEE, with its expertise in dealing with environment and development issues, and under the expert guidance of Prof. Madhav Gadgil, had undertaken the study using a fully transparent and participatory approach right from the start of the two year project in April 2011. The Goa State Pollution Control Board (GSPCB) made 95 EIA, EC and EMP reports available for examination. The research objectives of this study were to:

- a. Develop a scientific tool to assess the quality of EIAs, compliance of EC conditions and adequacy of EMPs of the Mining Industry in the state of Goa;
- b. Ground-truth the findings with regard to local environmental parameters; and
- c. Based on the study, develop recommendations to improve the process of EIA, EC and EMP.

CEE submitted its final report in January 2014 with a complete assessment and recommendations to improve the EIA development process, compliance of EC conditions and effective Environmental Management Plans for the mining industry.

## 7.2 European Union-India Free Trade Agreement Study

The European Union has commissioned a study by the Ambedkar Institute of Labour Studies, Mumbai, with the aim of understanding the impacts of EU-India Free Trade Agreement on human and social rights issues. This study is based on the findings from the International Labour Organization and the World Trade Organization studies on issues of globalisation and informal sector jobs in developing countries. The cited study shows that economic dynamism and growth do not automatically reduce the high informality rates in the economy and employment in a country like India.

The purpose of the study is to promote open constructive dialogue with civil society organisations on issues that are directly relevant to the FTA debate. The study is jointly hosted by the European Institute of Asian Studies with Ambedkar Institute of Labour Studies and Maniben Kara Institute. A subsection of the study is jointly undertaken by CEE with Nirman, Mumbai; Employees Federation of India; SEWA, Ahmedabad; CDEAR, Indore; and Stree Mukti Sanghatana, Mumbai. CEE is studying the perceived environmental impacts of this Agreement in India.



# Industry Initiatives

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## **Sustainable Business and Climate Change Group**

CEE's Sustainable Business and Climate Change (SBCC) Group works on various aspects of business sustainability and climate change themes at local, national and international levels. Its guiding philosophy in working with industries ñ small and large - is ensuring environmental and resource efficiency, pollution prevention and ensuring social and environmental accountability and compliance. The activities taken up involve information servicing, training and capacity building of decision makers, cleaner production, energy efficiency and waste management, linking industrial activities with environment protection and developing corporate social responsibility projects.

The group's focus on climate change education integrates an ESD approach in mainstreaming climate change into higher education systems. The initiative focuses on understanding and communicating trends in energy and climate with specific reference to equity and access.

During 2013-14, SBCC undertook projects of a varied nature with support from government departments, corporate groups and other donor agencies, covering a wide range of themes including energy transition, energy efficiency, climate change mitigation and adaptation, waste management and resource recovery, compliance and stakeholder engagement, business and sustainability education and training.

### **8.1 Clean Development Mechanism (CDM) Project on Afforestation and Reforestation**

CEE is working with the Department of Forests, Government of Gujarat to develop CDM projects on Afforestation and Reforestation. The tasks involve development of a project idea note and project design document. As part of the activity, CEE undertook field visits for identification of project sites and carried out stakeholder engagements at two locations for assessing project participants' willingness and participation. Subsequently field measurements and calculations were carried out.

The finalised Project Concept Note was submitted to the National CDM Authority.

The Project Design Document submitted to the Forest Department of Gujarat for the mangrove plantation project is in the finalisation stage. The work on the development of a second project is underway with the site identification completed and the initial drafts of the project concept note and project design document under consideration.

### **8.2 Energy Efficiency Network ñ Standards and Labeling Practice on Appliance Energy Efficiency**

This activity aims to develop a group of 10-15 civil society organisations working on/interested in the Appliance Standards and Labeling (S&L) programme of the Bureau of Energy Efficiency (BEE) and create a network on Energy Efficiency. The network ñ EENet - held three meetings to discuss the current gaps in the S&L process and to increase CSO participation in it.

The network developed a position paper to identify areas that require strengthening in the S&L practice and develop mechanisms to

address these through a participatory approach.

### **8.3 Knowledge Centre on Hazardous Waste Management**

In partnership with Naroda Enviro Projects Ltd. (NEPL), CEE has been involved in research studies for devising solutions to reduce the hazardous wastes load at landfill sites. One of the ways for this has been getting one industry to use the hazardous waste from another, thereby making the waste of one industry the resource of another. As a part of this, use of blocks/bricks from small and medium scale enterprise (SMEs) units of steel rolling mills in brick or road making processes is being explored.

The objective of this study was to create a waste exchange network under the ambit of Industrial Ecology and Eco-Industrial Development. The initiative mentioned above is in a nascent stage and the use of the steel rolling mill waste in the brick manufacturing industry will be explored after confirming standards for strength and toxicity tests. Simultaneously, CEE also conducted studies for utilisation of textile effluent sludge as fuel in captive boilers.

### **8.4 Low Carbon Report for a Sustainable India**

CEE worked with a group of NGOs and institutions from India and Germany to develop a first of its kind study aimed at integrating development concerns in a climate modeling framework. The report was developed by Integrated Research for Action and Development (IRADe) and provides important insights for the Indian low carbon

development policy debate. It has set forth a visionary development scenario for the period till 2050, which is based on meeting a development threshold that accounts for human well-being indicators.

With this as the foundation, two India-specific low carbon development scenarios have been overlaid, based on a calculated carbon budget for India on per capita equity basis. The mitigation measures required under this scenario lead to lower per capita CO<sub>2</sub> emissions in 2050, from 13.1 tonnes in the visionary development scenario to 5 tonnes and 4.1 tonnes in the two low carbon scenarios considered. These low carbon scenarios are consistent with the goals to end poverty and to promote sustainable development.

A major conclusion of the study is that the visionary development pathway does not involve any significant cost compared to the business as usual scenario, and also attains the threshold values of well-being indicators sooner. The study, thus, has the potential to play a critical role in advancing political and public discourses on integrated climate change mitigation and development in India.

The study emphasises increasing the investment in development goals, especially on sectors such as education and health; scaling up of renewable energy; and bringing energy efficiency to a level where it is able to meet its full potential in various sectors. The study also suggests that expansion of low cost mitigation options, innovative solutions, and indigenous, decentralised energy options will aid in rapid infusion and leapfrogging from the conventional fossil fuel-based pathways.

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The report, Low-Carbon Development Pathways for a Sustainable India therefore attempts to provide a larger vision and direction for the paradigm shift to low carbon options by the middle of the century while meeting development objectives and reduction of poverty.

The research study initiated in the year 2011 concluded with the launch of the report on February 5, 2014 at the India International Centre, New Delhi.

## **8.5 Evaluating Climate Change Projects ñ The Earth Care Awards**

The Earth Care Awards on Climate Change Mitigation and Adaptation are instituted by the JSW and covers SCARC countries. CEE is the knowledge partner for the Awards, whose process is being coordinated collaboratively by SBCC group and Urban Programme group.

The Awards, which aims to recognise efforts towards mitigation and adaptation initiatives by industries, communities and individuals, stepped into its fifth year. The fifth edition of awards was launched in 2013 and the process of evaluation and assessment of the applications received from the SAARC region, numbering 104, was conducted by CEE.

The evaluation process was well defined and supported with a technical and methodological framework for assessment of GHG mitigation and adaptation parameters. The evaluation team visited the sites of the shortlisted applications for verification and understanding the local climate change imperatives.

CEE was actively involved in all stages of the process: developing/finalising the assessment

criteria, shortlisting applications, preparing field evaluation tools, conducting field evaluations, and presenting the findings to the ECA jury. Besides finalising the winners for 2014, a case study book titled Coping with Climate Change highlighting success stories on climate change adaptation and mitigation has also been prepared.

### **8.5.1 Earth Care Awards ñ CEE Central**

CEE Urban leads two of the categories of the Earth Care Awards - Innovation for Climate Protection and Community based Adaptation and Mitigation to Climate Change. The following activities were undertaken as part of the process for 2014:

- The Award process was set and the strategies for communication and outreach of the award were decided. The activity calendar was planned and the tasks of the partners were delegated. Publicity event and meetings were organised at Kolkata and Chennai with the involvement of some past awardees. Eg. An outreach event for the award was held by CEE Kolkata on June 14, 2013 to help participants understand more about the awards and to facilitate the application process.
- The applications were received and processed in the respective categories. Initial assessments of the applications were conducted by the teams and applications were shortlisted based on the criteria of assessment and in discussion with the jury mentors for each category.
- Field evaluations of the shortlisted applications were undertaken by the teams for verification and fact finding. Criteria for evaluation of the applications were

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suggested and a tool and matrix for the field evaluations were developed for each category. Findings from field evaluations, referencing and verifications were documented and presented in the jury meeting for final selection of awardees.

- Developed case studies on success stories of climate change mitigation and adaptation as a compendium and short videos, gave inputs for development of media and publication materials like media connect stories, newspaper articles and advertisements, brochures and exhibit displays.

## **8.6 Energiewende: Discussing an Indian Energy Transition**

The project Energiewende: Discussing an Indian Energy Transition aimed to introduce the concept of the policy toolset of the German Energiewende as one possible way towards a low-carbon society, to relevant decision makers and stakeholders in India. The project started in September 2013 and the first quarter - September to December 2013 - concentrated mainly on the development of the background paper. It included an introduction to the Energiewende in Germany and to the Indian energy landscape.

During the second project phase - January to April 2014 - the background paper was finalised for distribution at the Energiewende Roundtable Discussion events. Five roundtable discussions were conducted in Kolkata, Bangalore, Pune, Ahmedabad and Delhi between February 24 and March 7, 2014. The roundtable discussions had around 130 participants from various professional backgrounds. The discussions focused on potential take-aways from the

German concept and on possibilities and barriers of an energy transition in India.

Ms. Rebecca Bertram from the Heinrich Boell Foundation in Washington DC was invited as a resource person to present the concept and current state of the Energiewende in Germany. At each event, she gave a comprehensive presentation and answered various questions about - amongst others - Germany's motivation behind the Energiewende and its economics. The presentations were followed by Indian discussants sharing their views on different aspects of an Indian energy transition and possible take-aways from the German experience.

The Energiewende Roundtable Discussions were very fruitful in all five cities and the participants' interests and pre-knowledge differed from location to location. The debates varied from capacity building about the Energiewende in Germany and the Indian energy regime (Kolkata), to analysis of the Indian renewable energy potential and discussion on stakeholder involvement (Bangalore), to experience sharing about the various challenges faced when implementing renewable energy (Pune), to technical discussions about different renewables systems and existing policies (Ahmedabad) to national policy debates (Delhi). The Roundtable Discussions prepared a sound ground in order to move to the next step of involving the participants and further stakeholders in a national event about policy planning.

The project objective of initiating a debate in India about a possible Indian energy transition by fostering trust in renewable energies and energy efficiency, and exploring

different ways forward in terms of policy and financial structures, was certainly achieved by the five roundtable discussions.

### **8.7 Sustainable Development Goals ñ Energy and Climate Change**

CEE has been assigned the task of developing baseline documents and drafting sustainable development goals on identified thematic areas. The SBCC group developed SDG reports on two thematic areas ñ Energy and Climate Change. The documents are designed so as to also provide insights into the country policy outline, processes and achievements.

As part of the activity, an inter-ministerial meeting on Energy was conducted, in which CEE presented the document and recorded the comments and insights on it. The report provides information on India's efforts to meet access to sustainable energy for all and links the Indian context to the international energy discussion. The document takes into consideration India's plan process and policy framework as provided by the Planning Commission and various line ministries. The baseline identified has been analysed in the light of international discussions and proposals and the report concludes with suggestions on SDGs for the energy sector, focussing on energy access for all, clean energy and its productive use as well as demand side management.

### **8.8 Participatory Monitoring and Evaluation of Port Development**

CEE has initiated the implementation of the conceptual framework based on participatory stakeholder engagement for improving environmental and social performance in special industry development zones. It is

expected that independent monitoring and evaluation, and consultation at local level would minimise complaints and alternative findings in their half yearly reports.

The objectives of participatory monitoring and evaluation are:

- Developing a conceptual model which can be adopted across various sectors and not limited to SEZ/CRZ. These could be at geographic level or sectoral level like mining, power, port, etc. Consensus on the same will lead to step two.
- Developing a pilot case, supported by an industry that is willing to undertake participatory environment monitoring along with providing seed capital to initiate and test the efficacy of the model proposed. Success of this step will lead to step three, thus paving way to its replication and creation of a self sustaining structure both in terms of technical and financial resources.
- A long term vision plan post success of the proposed model, garnering support from the MoEF&CC and industries across sectors

CEE initiated the development of a pilot project at Mundra Port, Kutch, with support from Adani Ports SEZ Ltd. The initiative will involve creating stakeholder engagement, developing a network of colleges and building capacity of the community to independently monitor the performance of the industry and the region on the human and sustainable development indices.

### **8.9 Environment Magazine - Gujarat Pollution Control Board**



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CEE, in order to further its outreach to regulatory agencies and industries, is working closely with the Gujarat Pollution Control Board to bring out success stories and good practices in resource conservation, resource recovery, and pollution control and prevention. It also seeks to inform industries and the general public on guidelines, notifications and regulations brought out by the Board/Government.

In the current year CEE has started working on a magazine titled Environmental Action. The magazine has contributions from scientists and officers from GPCB and CEE along with industry representatives.

#### **8.10 Climate Change Workshop ñ Climate Communication with NGOs and Media**

BBC Climate Media Action and CEE conducted a workshop at CEE Ahmedabad campus on the communication of climate change. The idea of this workshop was to understand climate change and its communication needs, viz. developing broad based understanding of climate change communications. The workshop also provided insights into the work undertaken by BBC Climate Media Action and the climate change communication tools developed by it.

The workshop sought to identify and extract lessons on the gaps in climate communication and how the tools developed can be further strengthened to communicate climate change at local level. Through this, CEE would get to establish a network of NGOs and create a database that would help leverage its work on climate change adaptation.

The workshop was conducted NGOs working on Climate change issues in different sectors in Gujarat. It provided an opportunity to the participants to reflect on their current communication strategies and develop more informed climate change communication in their respective areas of interventions.

#### **8.11 Delivery of Course Modules at Ahmedabad University**

SBCC group undertook delivery of two modules at Ahmedabad University: (a) Business Sustainability and ICT and (b) Sustainable Development with specific reference to Green IT. These modules were part of a larger programme aimed at integrating environmental sustainability and Education for Sustainable Development approach in higher education institutions.

# Sustainable Rural Development

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## 9.1 Hingolgaadh Eco-development Programme (HEDPro)

### Background

CEE has been working with the rural community in Jasdan Block since 1988 for sustainability education. The Jasdan Block office works as a Resource Centre for providing support services, guidance, reliable and need based information services, capacity building programmes, facilitating government programmes and schemes, demonstrating various sustainable livelihood options and market linkage support to the community. Institutional building has remained a major strategy towards achieving ground results. CEE has initiated and is supporting 63 Paryavaran Vikas Mandals (PVMs), which are functioning as village level sustainability promoting institutes and through which CEE facilitates sustainable development in the project villages.



Some of the major activities of HEDPro during the year include:

- The Gram Nidhi project initiated in 2005, provides eco-enterprise fund for sustainable agriculture and livestock

production, agro-processing and value addition, and non-farm micro-enterprises. During the year 35 eco-entrepreneurs were supported with a total fund of about Rs. 5.60 lakh. Some of the enterprises initiated include nursery, cultivating traditional food and pulse crops, organic farming, horticulture and floriculture, purchasing livestock, making cowshed/animal sheds, buying fodder, landscape management and soil-water conservation. The entire funding process is administered and monitored by the Narmada Trust initiated by CEE, who also guide and facilitate the project. Every three months the Gram Nidhi Coordination Committee meets to scrutinise funding applications and approve the funding. Funding is given, not directly to individuals, but to SHGs who then fund the individual members. This ensures greater accountability; even after a decade, 100 % loan recovery is the norm.



For HedPro - Eco-entrepreneurs

- Under the Gram Nidhi Sustainable Agriculture Promotion project, every year more than 200 farmers are provided sustainability education. Their agro-produces employ Non-Pesticide Management practices which benefits

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consumers. On the same line this year, Jasdan office took up the challenge of reintroducing a traditional variety of pearl millet known as Babapuri. This sturdy, long, drought resistant variety from this region was once known for its special taste and aroma, as well as its use as fodder but now is in danger of being wiped out. During this year, 40 farmers were given seeds to cultivate this variety in one bigha of land each, with the understanding that they would return five times the seeds given to them. The programme was quite a success: farmers got good crops and CEE has a permanent seed bank of the Babapuri pearl millet variety.

- More than 100 processed and value added products developed through Gram Nidhi are being sold under the brand name of Satvik. During the financial year, sale worth more than rupees Rs. 17 lakh have been achieved through participation in organic food fairs and agro fairs organised at various places including Ahmedabad, Rajkot and Vadodara. More than 200 women from landless and marginal farmer families are earning their livelihood through these enterprises.
- To facilitate easy and timely access to good quality bio-pesticides, organic growth promoters, organic manure, micro nutrients, traditional seeds and other agricultural input at appropriate cost, a producer company Sahyog was launched in 2010. It has 232 farmers as members. During the year, apart from sale, Sahyog was also actively involved in promotion of eco-technologies in farming. It also serves as an information provider for farmers in the region. As in every year, the annual meeting of its member farmers was

organised in May. The total turnover of Sahyog during 2013-14 was approximately Rs. 13 lakh. Sahyog also distributed vegetable seeds and a fruit tree sapling to its members.

- Jasdan Field Office is involved in plantation programmes in the region. For this purpose, every year CEE Jasdan approaches various nurseries in the Saurashtra region to get quality saplings. Plantation on farm boundaries, schools, public lands and backyards is being undertaken with the involvement of the communities. This year also about 9500 saplings were distributed among the community at nominal charges. Over the years, this programme has added to the tree cover in the region while also helping the community meet their fuel-fodder needs.

## 9.2 Gramshilpi

The Rural Programmes Group of CEE, in partnership with Gujarat Vidyapith, runs the Gramshilpi programme since 2007. Every year a batch of graduate and post graduate students join the programme to pursue their career by committing themselves to the cause of rural development.

The programme aims to provide extensive capacity building inputs and initial financial support to selected students of Gujarat Vidyapith to work towards holistic rural development. Gramshilpis get a monthly stipend for their personal and programmatic needs during the initial two years, after which they are independent and have to generate their own earning while working with communities.

As of now, 11 Gramshilpis have taken up the cause of rural development and have settled

down in villages, undertaking various activities.

The major thrust areas of the Gramshilpi activities are education, health, sustainable natural resource management, promoting social equity and entrepreneurship support. In their adopted village, the Gramshilpi plays a role similar to a mobile information centre. They have become a guide for villages in matters pertaining to education, career, administrative procedures for villagers to get their lawful entitlements and other rights. They also provide village updates regarding various rural developmental and agriculture schemes.

Apart from this, those who have settled in the remote tribal areas are also working towards conserving tribal culture and practices. They also support migratory families by running residential facilities for their children to ensure better education.

In the year 2013-14, three post graduates were selected for the project as Gramshilpis, based on the selection process conducted by CEE for the Vidyapith students. After twenty one days of initial contact session, they have selected villages from three different districts. Their capacity building and need based training covered content like primary education, elements of earth, methodology and skill module. Senior Gramshilpis also join this training process as facilitators and motivators.

### **Key Highlights**

One Gramshilpi - Mustukhan Sukh - has been awarded with Jagrit Jan Sanman by Jagrut Jan Trust, Ambavadi, Ahmedabad for his commitment to the tribal people of Banaskantha District.

Gramshilpi Jaldeep and his wife Snehal have selected Pedhamali village in Mehsana for their work. They are working mainly on three issues: Education for children, Community Health and Sanitation, and Women entrepreneurship through SHG.

The milk cooperative of Pedhamali, (District Mehsana) promoted by Jaldeep-Snehal, is the only dairy affiliated with Dudh Sagar Dairy, which is being run by a women's group. Snehal has received the 'Gujarat Women of the Decade Achievers Award', from Mrs. Anandiben Patel (then Minister of Revenue and Urban Development).

Gramshilpi Ghanshyam (Chimipatal, Umarpada Block, Surat District) mainly works on the issues of migratory children and community health. He provides residential facility for about 20 children of migrating parents, because of which they are able to stay back and continue their studies.

Gramshilpi Dasharathi's work focuses on overall development and education of the children from his village. Another interesting aspect of his work is promoting solar energy based equipment. He manufactures and sells solar lanterns and also carries out repairing work of other solar equipment. He also promotes this as an eco-enterprise and trains village youth for this.

## **9.3 Pudhu Vaazhvu Project ñ CEE Tamil Nadu**

### **Introduction**

The Government of Tamil Nadu (GOTN) through the Rural Development Department has initiated the Tamil Nadu Empowerment and Poverty Reduction Project (TNEPRP),

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titled Pudhu Vaazhvu, in 25 districts of Tamil Nadu in selected 120 blocks and 4179 village panchayats. The project is supported by World Bank.

The key objective/ vision of the project is to empower the poor through improving their livelihoods and reducing poverty by:

- Developing, strengthening pro-poor local institutions at the village level;
- Building the skills and capacities of the poor; and
- Enhancing their livelihoods by financing demand driven sub project investments.

### **Scope of Project**

In order to ensure that the environment is not compromised in the process of livelihood generation, the Environment Management Framework (EMF) has been integrated into the project in order to safeguard the environment. CEE is working as the State Environment Resource Agency (SERA) to assist Pudhu Vaazhvu State Society (PVSS) for the implementation of the EMF.

The specific objectives of the EMF are:

- To mitigate adverse environmental impacts of proposed sub-projects
- To ensure long-term sustainability for the sub-projects by securing the natural resource on which they are dependent

- To enhance the environmental benefits of sub-projects, and promote livelihood activities that are environment enhancing

### **Environmental Monitoring**

One of the roles of the SERA is to undertake Environmental Monitoring, viz., Environmental Supervision and Audit of the livelihood activities implemented under the project every year. The purpose of the supervision visit and audit is to understand the status of Environmental Management Framework (EMF), to understand the environmental issues, utilisation status and need assessment of GCPs at grass root level. SERA had visited the livelihood activities in PVP Phase I covering 15 districts. These visits comprise meeting with the District Project Management Units, interaction with Green



Environmental Monitoring - Environmental Supervision and Audit of the livelihood activities.





CPs, desk review and field visits. The SERA could visit around 100 activities.

The purpose of conducting a desk review is to check whether Environmental Appraisal is being carried out or not, and also to check the field applicability of the suggested measures. The meetings with DPMUs and GCPs help assess the need to improve EMF implementation. The field visits help understand the environmental issues, integrate mitigation measures, and leverage the required linkages and services to fill any gaps.

Some observations are given below.

- Based on the desk review, Environmental Appraisal is being conducted for 50 % of the activities by GCPs, of which only 30 % are required to implement relevant suggestions.
- Out of 207 trained GCPs, 126 (60 %) are active and working at grass root level. DPMUs could strengthen the gap in capacity building of GCPs.
- Out of the total activities field visited, 81 (87%) are NRM based. The major issues observed are:
  - o Use of restricted pesticides
  - o Disposal of dead birds
  - o Safety issues, respiratory problems due to exposure to fine particles

About 60 to 65 % of mitigation measures are implemented and followed.

Overall suggestions are:

- i Strengthening the gap in the capacity building of GCPs, which the SERA will facilitate

- i Replicating positive practices

- Making beneficiaries to follow safeguard policies especially in banned pesticide usage
- Utilising the NRM based convergence to implement the mitigation measures and eco friendly activities.

### Capacity Building

One of the main responsibilities of CEE as SERA is capacity building of the Project Officials. Accordingly it is planned that DPMUs will receive main and refresher training yearly. A one day refresher training on Environment Management Framework (EMF) was organised for the District Project Management Unit (DPMU) consisting of District Project Managers, Assistant Project Managers, Team Leaders, Facilitators and Green Community Professionals (GCPs) of all PVP districts.

The Objectives of the EMF Training Programme are:

- To give an orientation to the participants on the basic concepts of environment,



CEE working to assist Pudhu Vaazhvu State Society

ecology and the linkage between environment, livelihoods and poverty

- To introduce participants to the Environment Management Framework (EMF) including Environmental Assessments and promotion of eco-friendly livelihood activities
- To introduce the participants to Technical and Environment Guidelines (TEGs) and to help them get familiarised with its usage
- To give an orientation to the participants on utilising the resource mapping data for promotion of suitable eco-friendly livelihood activities

No of PVP staffs trained on EMF by CEE		
<b>I</b>	<b>Main Training</b>	
<b>A</b>	<b>State level EMF training for DPMUs</b>	
	DPMs	25
<b>B</b>	<b>Regional level EMF training for APMs</b>	
	APMs	124
	Team Leaders	5
<b>C</b>	<b>District level EMF training for PFTs &amp; GCPs</b>	
	APMs	31
	Team Leaders	173
	Facilitator	816
	GCP	345
<b>II</b>	<b>Refresher Training</b>	
<b>A</b>	<b>State level EMF training for DPMs</b>	
	DPMs	20
	Dairy Consultant	5

	Agri Consultant	1
	Additional Project Officers	4
<b>B</b>	<b>Regional level EMF training for APMs</b>	
	APMs	133
	Agri Consultant	4
	Dairy Consultant	5
	Team Leaders	1
	Facilitator	2
<b>C</b>	<b>District level EMF training for PFTs &amp; GCPs</b>	
	APMs	15
	Team Leaders	119
	Facilitators	506
	GCP	249
	Dairy Consultant	3
	Agri Consultant	3

# Sustainable Urban Development

## 10.1 Supporting Urban Sustainability 2013

The Supporting Urban Sustainability Programme (SUS) by SWEDESD, Sweden and implemented collaboratively in South Asia by CEE with ICLEI, aims at enhancing the capacity of key public, civic and private organisations to learn about and take action for Ecosystem Services for Poverty Alleviation (ESPA) in cities. Multi-stakeholder teams were constituted in seven cities - Gangtok, Guntur, Guwahati, Kozhikode and Malvan in India, Thimphu in Bhutan and Rajshahi in Bangladesh. All the seven teams attended workshops in April and July 2013 to learn about the Inquiry Based Approach, collaborative governance and ecosystems services. Each of the teams developed an Inquiry around a locally relevant issue. The learnings and achievements were presented at a concluding workshop in December 2013.

### 10.1.1 SUS Kozhikode

The SUS Engagement workshop was conducted at Kozhikode with representatives from several government institutions, NGOs and environmentalists of the city during March 2013 and the issue of enquiry was decided to be Conservation of Kottooli Wetlands. A core team was also formed during the conclusion of the two day workshop.

Subsequently, the Kozhikode team participated in the International Workshop of SUS held in Ahmedabad during April 26-29, 2013. Teams from seven cities took part in this workshop in which members from different teams interacted with each other. Teams made presentations on their chosen issue and received feedback and ideas from the others. The workshop was highly interactive and enabled the exchange of ideas among the groups. The resource

persons also introduced several techniques to the group for conducting their enquiries.

On May 17, 2013, a meeting was held at the Collectorate Conference Hall in Kozhikode with representatives of several NGOs, institutions, resident associations of Kottooli and interested citizenry. This meeting focused on apprising the audience of the decisions and plans made during the Ahmedabad workshop and inviting ideas for future activities that would lead to the conservation of the wetland. The group also decided to explore funding opportunities for carrying on the work even after the project period. Several meetings were subsequently held to discuss plans and conduct activities with core group as well as advisory group members. The meeting on July 17, 2013 took a decision to bring out a comprehensive publication on Kottooli wetlands which would cover all aspects ñ historical, legal, scientific, environmental and social ñ related to the wetlands and their conservation. As part of this, the core team met eminent experts in different fields with a request to write on their field of expertise for the publication. The articles for the publication have been received and the publication process is under way. In order to garner public support, a Facebook page was started for Kottooli Wetland Conservation.

The Kozhikode team participated in two subsequent workshops held in New Delhi during September 25-28, 2013 and in Ahmedabad during December 10-12, 2013. In both these workshops the interactions and exchange of ideas and feedback continued and the team modified their plans when required.

During December 2013, a Clean Kottooli campaign was conducted in the wetland area

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by the SUS team in which NSS students from Providence College and Girls Vocational Higher Secondary School participated. They cleaned the area by removing plastic and other garbage.

As part of the conservation activities, the Kozhikode team organised a mega school programme in the Kottooli wetland itself on January 22, 2014, in which more than 1000 students from 75 schools in the city participated. The programme was held with a view to create awareness among the students and citizens of the city about the importance of the wetland to the city. An artist camp was also held on the occasion in which eminent artists of the city painted the wetlands from their own perspectives. Dr. Jafer Palot, Scientist, Zoological Survey of India, Kozhikode, made a presentation on the biodiversity of the wetlands. The programme concluded with the students taking a pledge to protect nature and the wetlands and signing a memorandum requesting authorities to ensure the wetlands are conserved.

The team has decided to carry forward the struggle to conserve the wetlands through multiple means – advocacy, legal action, civil society movement, student action and others.

#### **10.1.2 SUS in Malvan**

Malvan, a small town on the coast of Maharashtra was selected for implementation of the Sustainable Urban Sustainability project. As part of this, the team Sangam was created with members from different stakeholder groups. Issues related to creek sedimentation, fishery and tourism sustainability were identified for the study. The Sangam team members studied the issue from the environmental, social and economic angles and developed a report on the sustainable

management of creeks for fishery and tourism. As part of the study, members visited the National Institute of Oceanography, Goa University, Department of Ports and Maritime Board and other institutions and collected data related to creek sedimentation. To get the view of the local people, a scientifically designed questionnaire was prepared and 400 families were interviewed. The result of both the studies was considered for the final recommendation of creek management for fishery and tourism.

### **10.2 SUM Net India**

Over the last three years, with the advice and collaboration of partner NGOs, CEE has facilitated the formation and evolution of the Sustainable Urban Mobility Network India, SUM Net. SUM Net is a democratic, secular, membership-based coalition of individuals, voluntary organisations, and civil society networks and movements.

A project taken up to strengthen SUM Net and its advocacy work on sustainable urban transportation was continued in 2013-14. The project is supported by Climate Works and the Shakti Sustainable Energy Foundation, India. The following activities were taken up in the reporting period:

- a. Exploratory visits by SUM Net members to several cities and discussions with about 50 organisations to explore perceptions about urban transport and its links with the work of these organisations
- b. Two workshops conducted in Pune and Delhi to introduce sustainable transportation elements to over 70 organisations from about 20 locations to enhance civil society/ NGO engagement in issues of urban transportation

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- c. Streets for People course conducted in three colleges, viz. CEPT University (Ahmedabad), the BN College of Architecture and PVP College of Architecture (Pune), reaching out to over 150 students and faculty members, and over 300 community members and institutional stakeholders
  - d. Educational and advocacy materials prepared and disseminated in the form of newsletter, draft papers on policy reviews, poster exhibit, calendar and web articles
  - e. Participation by SUM Net members in the Urban Mobility Conference 2013, which is organised by the Ministry of Urban Development and the Institute for Urban Transport, and the display and dissemination of educational materials prepared by SUM Net in an exhibition stall at the venue
  - f. A stakeholders' workshop organised in Alwar as a demonstration of multi-stakeholder consultation and to generate the understanding and momentum for a locally initiated, bottom-up transportation planning effort. Participants included different informal transport service providers and institutional stakeholders.

### **10.3 Strengthening Green Federalism in Urbanising India**

CEE, in discussion with and support from the Hanns Seidel Foundation (HSF), is evolving an initiative to strengthen Green Federalism in Urban India. As a first step, a two-month activity was taken up in November and December 2013 to help develop the longer-term initiative.

CEE organised the 'Participatory Urban Governance Workshop for Experience Sharing, Reflection and Action Planning' on November 20-21, 2013, with support from Hanns Seidel Foundation, Delhi, and technical inputs from Yashada and the Alternatives Forum, Pune. The experience sharing and discussions at this workshop are helping to shape subsequent work to strengthen participatory budgeting in Pune.

The November workshop concluded that in order to strengthen the participatory governance, there is a need for refining the actual instruments, tools, processes and fora for participation. While some legislative structures and spaces do exist, a lot more work is needed in creating processes for bridging gaps between different community groups, and addressing competing interests of different citizens groups. The twin goals of well being of all and ecological sustainability could help provide an underpinning ethic for such work.

The following activities/ meetings were conducted after the November workshop, and concept notes for further work on each have been prepared:

1. Meeting with Pune Municipal Corporation (PMC) officials for discussing a draft process manual of Participatory Budgeting in Pune
2. Meeting for engagement of University / higher education institutions for development of an internship calendar and a protocol for multi-disciplinary studies and student work
3. Meeting / workshop for development of training kit outline for community mobilisers



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## **10.4 Promotion and Outreach Programme for BRT and NMT in PCMC Area**

Under the GEF India Sustainable Urban Transport Programme (SUTP) and Jawaharlal Nehru National Urban Renewal Mission (JnNURM) programme of the Government of India, Pimpri-Chinchwad Municipal Corporation (PCMC) is developing a high quality people friendly Bus Rapid Transit System (BRTS) with a network of 45 km. The BRT in PCMC is part of a larger system of 115 km proposed in the Pune urban region. The system will be operated by Pune Mahanagar Parivahan Mahamandal Ltd (PMPML), the existing public transport company in Pune urban region.

CEE, in partnership with IBI Group, has been entrusted the task for conducting the Communication Outreach Programme for the Pimpri Chinchwad BRTS. The PCMC BRTS Promotion and Outreach Programme aims to provide a framework and list of activities/programmes to be carried out and implemented by PCMC for the new BRTS currently being developed in the city. The objectives of the Consultancy are to:

- Build a positive identity for BRTS & NMT, including system name and logo
- Position BRTS as a clean, modern, fast, safe and reliable transportation solution to the public
- Create awareness among the citizens about sustainable transport in general, BRT in particular
- Educate new riders on how to use BRTS
- Inform and prepare the public for the difficulties they are likely to face during

construction and transition to the new system, seek their cooperation, and receive their feedback.

- Identify key stakeholders and build strong partnerships with media and civil society for smooth implementation of the project
- Induce a shift towards sustainable modes of transport.
- Monitor measure and evaluate the effectiveness of the outreach programme

In the reporting period, CEE and IBI group has developed an external environmental analysis report and a detailed communication strategy. The BRTS logo and branding identity has been developed, and the outreach material that includes presentations on BRTS to NGOs, colleges, and other institutional stakeholders prepared.

## **10.5 Systems Thinking and Modelling of Urban Transport, Health and Well-being in Pune**

CEE's Sustainable Urban Development Programme undertook a project on systems thinking and modelling of Urban Transport, Health and Well-being (UTH&WB) in Pune. The project aims to enhance understanding of the links between urban transportation systems and human health and well-being, applying a systems thinking approach. It seeks to examine issues of the sectors from a systems perspective and explore cross-sector feedback mechanism in order to model it. The project will try to develop a shared understanding of both the sectors and their links by collaborative learning among different actors and stakeholders. It will model and suggest policy recommendations and measures for improvement of the transportation system which in turn will improve the health and

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wellbeing of people in Pune. This initial phase of the project is supported by the Swedish International Centre of Education for Sustainable Development (SWEDESD) and funded by the Swedish Secretariat for Environmental Earth System Science (SSEESS) Research Links.

### **10.6 Transport Status Report of Pune**

CEE Urban Programmes group undertook the task of writing a chapter on the status of pollution and air quality in Pune city for the

first Transport Status Report 2012-13 of Pune. This citizens' Transport Status Report (TSR) was compiled and published collaboratively by Parisar and the Save Pune Traffic Movement. CEE Urban contributed a chapter on status of pollution and air quality for the TSR by sourcing air quality data from Maharashtra Pollution Control Board (MPCB) and Indian Institute of Tropical Meteorology (IITM), analysing the trends and status, in comparison with the standards prescribed by the Central Pollution Control Board (CPCB).

Indian cities, as also the rural areas, face the uphill task of managing the increasing quantities of wastes that are generated, around 6,00,000 MT every day. Hazardous and infectious wastes form a major category of wastes that pose a challenge for their management and disposal. Management and disposal of all this waste requires a concerted effort where awareness and education complement sustainable solutions to waste management.

CEE's initiative in this area aims to demonstrate a sustainable waste management approach, facilitate capacity building, and share information on eco-friendly and scientific approaches and technologies of waste management. The Waste Management initiatives at CEE have been actively engaging at the decision making as well as community levels to research, demonstrate and communicate sustainable practices for managing the various categories of waste.

## 11.1 Demonstration Units

### 11.1.1 Common Healthcare waste Appropriate Management Plant (CHAMP), Gulbarga

The Waste Management group of CEE has been implementing a project 'Healthcare Establishment Waste Management and Education Programme (HEWMEP)' wherein a Common Biomedical Waste Treatment Facility called as CHAMP has been set up in Gulbarga city. The CHAMP facility is in operation since May 2005. CEE CHAMP Gulbarga facility has been collecting, transporting, treating and scientifically disposing the collected waste of Health Care Establishments (HCEs) in Gulbarga City, since eight years, in accordance with the Bio-Medical Waste (Management and Handling) Rules 1998. CEE CHAMP covered 437 health

care establishments of Gulbarga city adding up to about 3161 beds. In July 2013, CHAMP extended its service coverage area to two nearby taluks - Sedam and Jewargi - in the same district to cover 40 government HCEs. CEE conducted several orientation programmes for medical and paramedical personnel of Gulbarga city and at taluk levels during this year.

Another major achievement for CEE CHAMP has been the rate revision of service charges for the collection, transportation and treatment of waste of the HCEs. Due to the steep hike in diesel prices, the rate revision was imperative and was agreed upon by the HCEs and the project monitoring committee, who also considered the satisfactory and regular service provided by CHAMP.

Apart from providing services to the healthcare establishments of Gulbarga city, CEE CHAMP also serves as a demonstration model for students and other visitors, providing knowledge on biomedical waste management and the operation of a common biomedical waste treatment facility. Around 163 students of various colleges from Gulbarga city including MR Medical College, KBN Medical College, HKEiS N Dental College, HKEiS N Homeopathy Medical College and Environmental Science and Zoology Departments of Gulbarga University, visited the state of the art facility of CEE CHAMP.

CEE CHAMP has also signed an agreement with a local organisation in Bidar district, by which the agency would collect waste and transported it to CEE CHAMP for scientific treatment and disposal. The training to the staff of the organisation and the local HCEs would also be aided by trainers from CEE CHAMP to facilitate maximum segregation at site and effective management of waste.

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### **11.1.2 Nemiraj Memorial Demonstration Unit**

The concept of Hand Made Paper (HMP) for recycling paper waste and Plastic Weaving (PW) has been popularised by CEE's Waste Management group, as a part of its mandate to address the reuse and recycling of dry waste from domestic garbage. Under this initiative, CEE established CEE's-Ecofriendly Reuse and Recycling Unit (CEE-ERU), especially for recycling of paper scraps and plastic carry bags. In this unit, paper scrap is recycled by the handmade paper making method while polybags are reused through the polybags weaving method.

The first CEE-ERU was established in Virajpet, Coorg, Karnataka, named Nemiraj Memorial Demonstration Unit (NMDU) in 1999 and provides employment to around 10 women who undertake paper recycling and plastic weaving. Subsequently, through different CEE offices, such units have been set up in Ahmedabad, Coimbatore, Delhi, Goa, Tirupati, and Kihim and Palghar of Maharashtra. Today, the concept has been taken up by many women's self help groups who gather raw material either by door-to-door collection or by buying it from rag pickers. This provides them livelihood while taking the solid waste away from the environment.

The concept of Plastic Weaving Unit (PWU) had been awarded the Plasticon 2005 Award in October 2005 in Mumbai by the PlastIndia Foundation in the category of 'Innovation in Recycling Technology' for its innovation of a 'Polyloom' - a plastic weaving handloom that helps reuse and recycle discarded plastic bags (polybags).

Apart from delivering on orders obtained for products in the year, two training programmes were conducted by the CEE-ERU team in Coorg.

The training covered topics on the collection of raw material, cleaning of the discarded plastic carry bags, cutting the bags into strips, preparing the looms and weaving the plastic material. The participants were also taught fabrication of the woven material on sewing machines by the trainers. The motive of organising this event was to build a socio-economic strategy for the people working in SHGs which will focus on the well being of our environment by utilising discarded plastic bags as a resource for their earnings and thereby preventing plastic bags from entering the waste stream - a step towards a cleaner and greener environment.

### **11.2 National Capacity Development Workshop on E-waste Management**

CEE with support from the Ministry of Environment, Forests and Climate Change (MoEF&CC), Government of India and in collaboration with National Institute of Urban Affairs (NIUA) and GIZ organised a day long national workshop on capacity development in e-waste management, on September 17, 2013 at the India Habitat Centre, New Delhi. The focus of the workshop was on the E-Waste (Management and Handling) Rules 2011 and the development of an Awareness and Education Package on E-waste.

The focus of the workshop was to map the lacunae in existing capacity building efforts in the area of e-waste management and to assess needs to develop resource materials such as training modules, IEC materials, dedicated portals and others. to address the gap. The workshop was attended by around 50 participants including producers, bulk consumers, recyclers as well as the regulatory authorities. Bringing to the table their rich experience in handling and management of

different aspects of the products that constitute e-waste, the participants gave suggestions for a capacity development strategy which would include building a common understanding of E-waste Management and Handling Rules, conducting of training programmes, developing guidance documents and toolkits. Participants also pointed out that policy-makers, regulators, e-waste collectors, dismantlers, recyclers, producers and individual and bulk consumers understand their stake and responsibility and do make efforts to effectively implement e-waste rules. Apart from introductory capacity development modules on the basics of e-waste and associated health and environmental impacts, setting up of an environmentally sound handling system with suggested methodologies was also proposed. A key suggestion was to organise a training of trainers to address the future training needs of relevant stakeholders.

The recommendations received from the workshop were documented and the final report was submitted to the MoEF&CC for perusal and action.

### **11.3 Source Book on Solid & Liquid Waste Management in Rural Areas in India**

The Ministry of Drinking Water and Sanitation (MDWS), Government of India granted a project to the Waste Management Group of CEE to prepare a source book on Solid & Liquid Waste Management in Rural Areas in India. The sourcebook will serve as a handbook cum manual for the communities in rural areas to create mass awareness about the health and environmental impacts caused by improper handling and management of waste and educate all the stakeholders about the need and importance of a proper waste management system emphasising its relation to health and

environment. It also aims to bring about a change in the thinking and perceptions of people in rural regions regarding the values and benefits of hygiene and sanitation through solid and liquid waste management, by means of discouraging open defecation, encouraging construction and use of individual/ group toilets in all villages, and facilitating adequate systems for treatment of human and animal excreta using anaerobic and aerobic systems.

The content of the sourcebook has been finalised and the chapters have been written by CEE. The sourcebook includes nine chapters covering topics such as integrated solid waste management, waste recycling, technologies such as composting and biogas generation as well as use of treated black and grey water at the rural level. The sourcebook also emphasises the need to have a participatory approach for effective waste management at the community level.

The draft sourcebook has been submitted to MDWS for their comments and suggestions.

### **11.4 Nabadiganta: Community Participation for Fly Ash Management**

CEE Kolkata has partnered with CESC Ltd. to address problems caused by the prolonged persistence of fly ash in one of the regions of South 24 Parganas district of West Bengal. The programme named Nabadiganta aims to develop a green belt across the affected area with community participation, by conducting a pilot scientific experiment in fly ash reclamation in the area. Various community based activities like livelihood skill training, resource mapping, PRA and awareness programme also form part of the project.

As part of the project, CEE team conducted a baseline survey, two rounds of participatory





rural appraisals and two community awareness meetings in association with the local mobilisers and volunteers. Field visits of experts from scientific institutions and Forest Departments were facilitated by CEE, to get inputs for a suitable strategy for the plantation and reclamation experiment. The nearby schools of the area are also involved in spreading awareness on the local biodiversity and need to plant more trees to improve the environmental scenario of the region.

A formal launch of the programme along with two stakeholder meetings was also conducted as part of the project. Political and community interference in the region has led to delay in implementing many of the planned activities under the project.

### **11.5 Multi-stakeholder Consultation for Addressing Industrial Waste Management in Orissa**

The Waste Management Group has been implementing the project Multi-stakeholder Consultation for Addressing Industrial Waste Management in Orissa. The overall objectives of the project are creating awareness, consensus building, generating participation in the

processes of change and development, and making informed decisions for reducing the environmental burden caused by industrial waste and effluents in the region. The project also aimed at evolving cost effective, environmentally sound and feasible strategies to mitigate the identified problems and concerns faced by the various industries in the region.

In the reporting period, a field visit and a stakeholder meeting was organised under the project to devise the final pollution management plan for the region. The Pollution Control Board officials of Odisha have been contacted to facilitate the same.

The pollution management plan for Sukinda, the site of the project, consisted of approaches for addressing chromite pollution. Separate approaches were proposed for mine drainage water and management of overburdens. The pollution management plan also addressed the mercury contamination in Ganjam region. The contaminated sites in Talcher and Sundergarh region were also included in the pollution management plan.

### **11.6 Documentation and Sharing of Best Practices in Municipal/City Level SWM in Indian Cities**

CEE joined Urban Management Consulting Pvt. Ltd. (UMCPL) in providing consultancy support to the National Institute of Urban Affairs (NIUA) in conducting the documentation of good practices in Municipal Solid Waste (MSW) in Indian towns and cities. The project is a part of the Peer Experience and Reflective Learning (PEARL) initiative of the Government of India, which provides a platform for deliberation and knowledge exchange to Indian cities and towns under the JnNURM project and is established under the National institute of Urban Affairs

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(NIUA), New Delhi. This documentation project has the support of the Ministry of Urban Development, Government of India.

The team of UMCPL and CEE in consultation with the NIUA developed the formats and criteria for identifying and studying MSW management initiatives. The criteria covered planning, practices/implementation, projects and innovations in improving the quality and efficiency of solid waste management in Indian cities. While many pilot projects have been undertaken, it was a challenge to find initiatives that had sustained beyond pilot projects and were fitting into the criteria set for the documentation process. After secondary research from publications, academic papers, media scan and discussion amongst NGO networks, CEE and UMCPL were able to put together a comprehensive list of 67 case studies. Based on the inputs from the Peer Review Group set up by the NIUA, 10 case studies were identified for snapshot and detailed documentation of which, five (Ahmedabad, Pune, Bangalore, Mumbai, Pammal) were

selected for detailed documentation and five (Vrindavan, Koyambedu, Patna, Srinagar, Gangtok) for snapshot documentation. The detailed documentation exercise involved field visits to the respective sites, understanding the city profile, interacting with the local municipality and documenting the initiatives in detail with pictures and photographs.

### **11.7 Study of Solid Waste Management (SWM) in Tarapur and Boisar, Maharashtra**

Concerned citizens of Tarapur and Boisar approached CEE for providing a suitable solution for the issue of SWM in their area. An interim report was submitted to NPCIL CSR wing, based on which NPCIL has commissioned a baseline study of Municipal SWM in 19 Gram Panchayats adjoining their plant in Tarapur and entrusted it to CEE. CEE has completed the primary and secondary data collection work. A detailed report with recommendations will be submitted to NPCIL shortly.

## Biodiversity Conservation

### 12.1 Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity in Three Indian States

GoI-UNDP-GEF project 'Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity in Three Indian States' was implemented in the year 2012-13 with CEE- Himalaya being the agency for developing a communications strategy and IEC material suited to different stakeholders, age groups, communities, genders and professions. The project focused on creating an enabling environment to mainstream the long term conservation and sustainable use of medicinal and aromatic plants (MAPs) diversity in the State of Uttarakhand, the ultimate objective being, to help translate information and knowledge available on MAPs conservation into action and practice.

#### 12.1.1 Objectives of CEE's Communication Strategy

The main objectives of the communications strategy were to familiarize stakeholders with the concepts of conservation, sustainability and scientific harvesting by highlighting their significance in people's lives and livelihoods; to create awareness about MAPs, GSMPs and imminent threats; and popularise Medicinal Plants Conservation Areas (MPCAs) and Medicinal Plant Development Areas (MPDAs) as conservation initiatives. CEE also focused on promoting MAPs cultivation as an alternate livelihood practice by linking cultivators with institutions, markets and industries, leading to enhanced cooperation and networking amongst stakeholders, thereby discouraging middlemen in the market structure. The project sought to build capacities of stakeholders,

promote home herbal gardens, community and school medicine gardens, nurseries and revive traditional healthcare systems, and link all the stakeholders for mutual cooperation to strengthen mainstreaming conservation of MAPs.

#### 12.1.2 Field Visits

Field visits were conducted by the CEE Himalaya Team along with SMPB staff members to the four MPCA sites – Bastiya, Mohan, Mandal and Jhuni – and some of the surrounding villages, for gaining information prior to developing communication material. They held discussions with several stakeholders including men, women, farmers, NTFP collectors, youth, local Forest Department officials (DFOs, Rangers, Forest Guards, MPCA nursery and management staff, BMC and Van Panchayat members), school teachers and principals, students, Vaidyas, ASHAs, ANMs, local MAP cultivators, IMPCL factory officials and herbal Mandi staff.



School awareness Programme on MAPs, Uttarakhand

#### 12.1.3 Communication Tools

The tools developed by CEE for effective communication to address different target

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groups as per their learning needs were in the form of:

**Audio** ñ A series of 13 radio episodes

**Audiovisual** ñ six video documentaries

**Visual** ñ Wall writings, hoardings, banners and PPTs

**Print** ñ Posters, brochures, book labels, year planners, table and wall calendars, diary, Panchang, Sanjeevani calendar

**Manuals** ñ Training of Trainers (ToT), Manual for Foresters

**Print Media** ñ Newspaper articles, web reports

The communication tools were prepared both in English and Hindi languages and field-tested at Bastiya, Mandal and Mohan with a range of stakeholders including children, women, farmers, the Forest Department and local Vaidyas. It was observed that everybody was very enthusiastic about reading the posters and understanding the illustrations. Those unable to read were able to understand key messages from illustrations and photographs. Another observation was that some terminologies were not understood by those reading the IEC materials and simpler, more colloquial language was preferred. Activities such as exhibitions, exposure visits to MAP areas, competitions and rallies were organised for promoting the MAPs conservation and cultivation.

#### **12.1.4 Orientation Programmes on MAPs with Community**

Orientation programmes on MAPs were organised in Sunderkhal, Mohan and Mandal on April 8, 9 and 16, 2013 respectively, for the villagers, BMC members, Forest Department staff and Van Panchayat members; about 108

people participated (53 in Bastiya, 25 in Sunderkhal and 30 in Mohan) and were acquainted with the concepts and objectives of MPCA, MPDA, GSMPs, threats to MAPs, over-harvest, sustainable harvest and other topics. The audience was shown the entire range of communication material and was invited to identify, comment or discuss the material/content that was presented.

Information about this project has been sent to several networks/partners for inclusion in their newsletters, and videos of the same have been uploaded on international websites. Some organisations to which news about the current project were sent include:

- Food and Agricultural Organization of the United Nations (FAO)  
<http://www.fao.org/forestry/international/mountainday/80416/en/>
- Integrated Centre for International Mountain Development (ICIMOD)
- Peak to Peak Newsletter ñ Mountain Partnership  
<http://www.mountainpartnership.org/peak-to-peak/current-issue/en/>
- Regional Centres of Expertise (RCE) ñ United Nations University (UNU-IAS)
- CEENARIO, CEE's fortnightly newsletter (Vols: 52, 69 and 72)

Video documentaries produced during the project were shared on YouTube to reach out to a larger audience.

#### **12.2 VIRASAT: Documenting and Conserving our Living Heritage**

The Biodiversity Conservation Act of 2002 provides calls for the formation of Biodiversity

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Management Committees (BMCs) at the village level and documenting local biodiversity and traditional knowledge in the form of People's Biodiversity Register (PBR). BMC and PBR are important potential tools to conserve our genetic resources, ensure its sustainable use and ensure that any benefits arising out of its commercial use are being shared equitably with the local communities.

Thus each village should have its own BMC and PBR, which is a herculean task. Moreover, to prepare an authentic PBR, capacity building and training of BMC members and the village community is essential. Based on this CEE has initiated VIRASAT: Documenting and Conserving our Living Heritage project with the collaboration of Gujarat State Biodiversity Board (GSBB), in the villages of Jasdan and Vinchhiya blocks, Rajkot district.

The main aim of the project is facilitate formation and orientation of a BMC at each Gram Panchayat. The major task to be undertaken was to survey and collect data on village biodiversity involving local experts, BMC members, community members and CEE team. Another major task was the preparation of PBR in selected project villages, broadly covering aspects like agro-biodiversity, domesticated animals, wild biodiversity, medicinal plants, grasses-trees, climbers, wild animals, aquatic biodiversity and others, and also document traditional knowledge related to biodiversity.

During the first phase of the project, CEE has formed 10 BMCs in different Gram Panchayats. CEE also facilitated preparation of PBRs in these Panchayats with the support of BMC members, local and external experts and traditional knowledge holders. The village PBR will become an authentic document for each village about the baseline and richness

of its biodiversity. CEE has submitted final the PBRs of these villages to the State Biodiversity Board.

Under the Gujarat Biodiversity Rules 2010, constitutional provision has been made for a Local Biodiversity Fund (LBF) in all the local governance institutions. CEE has also facilitated the opening of separate bank accounts for LBF for the BMCs in the 10 Panchayat. GSBB also transferred an initial fund of Rs. 15,000 to each Panchayat to purchase basic furniture and stationeries. CEE has facilitated the establishment of the BMC in each Panchayat and the purchase of appropriate furniture and stationeries. These BMCs are now functioning as statutory bodies under the Biodiversity Act. CEE has also facilitated the preparation of Village Biodiversity Conservation Action Plans for the conservation of local biodiversity in all the 10 villages to be submitted to GSBB for financial support.

Some of the learnings during the BMC formation and PBR preparation under the Virasat project are:

- One needs to understand that this is people's biodiversity register and not experts' register while gathering/collecting information for PBRs.
- The PBR process consists of collecting information and knowledge, as opposed to conventional development projects where the developmental professional approaches the community with new information and knowledge. So the education and communication strategy for the project is different.
- As the PBR is meant to be an authentic and authorised document under the Biodiversity Act 2002, great care and



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ground verification needs to be exercised in the process of collection of information and knowledge.

- Knowledge on biodiversity is fast declining among the new generation in rural areas due to new technological interventions like motor bikes ñ eg. This reduces direct observation when compared to walking to the farm. Knowledge about pests, weeds and other vegetation obtained through observation is a casualty.
- Most of the children are no more involved in any agriculture activities with their parents due to the new education system and misinterpretation of child labour. Children visit even their own farm less frequently and so their knowledge about local biodiversity is similar to urban children.
- Modern agriculture has led to loss of knowledge of biodiversity that is very important for successful and sustainable agriculture. Most of the farmers focus on the very narrow mono-cropping or grain/seed oriented approach of agriculture rather than the ecosystem approach.
- The role and importance of Traditional Knowledge holders in the rural society has declined drastically due to the promotion and propaganda of allopathic medicines as the only solution for health problems.
- There is a need for a long term strategy for strengthening BMC members' capacity through education and communication; specialised capacity building and counselling support for at least 10 years is required to make the BMC a real conservation institute at the grassroots level.

- The current opportunities of BMC and PBR should be considered as a social research project in the context of seeking/collecting TKs for planning more sustainable ways of conservation and also designing sustainability education and conservation programmes for the community.
- The loss of agro-biodiversity is very alarming in these villages as many of the traditional crops are not being grown since more than a decade; in fact, the new generation has never seen such crops. Even the varietal diversity of crops grown now is reduced to very alarming levels with dependence on market and private companies for seed becoming common ñ the community has lost its seed independence.

### **12.3 Documentation of Good Practices in Coastal and Marine Biodiversity Conservation**

CEE with support from Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) undertook a project to document case studies good practices in Coastal and Marine Biodiversity Conservation from Indian experiences. The objective of the assignment was to develop a compendium of case studies on good practices, including strategies, activities and documentation, on coastal and marine biodiversity management. A work plan and timeline was detailed out in close consultation with GIZ. Existing materials, policy papers, meeting assessment reports, scientific studies and other relevant documents were reviewed and analysed to screen potential case studies. A set of criteria was developed jointly by CEE and GIZ through a workshop for the shortlisting process.

Around 120 case studies were shortlisted from across India based on secondary research, out of which 50 were finally shortlisted for field verification. Field verification and local level meetings in nine coastal states and four coastal union territories helped document valuable learnings on strategies and activities on coastal and marine biodiversity management, especially initiated by local communities, NGOs and Government. CEE teams in the coastal states - West Bengal, Tamil Nadu, Kerala, AP, Orissa, Goa and Maharashtra met key stakeholders including government, NGOs, scientists, local media, traditional healers, and others, for the ground verification. Andaman and Nicobar Islands, Lakshadweep and Pondicherry were also covered. The 25 case studies that were finally developed depict a range of learnings in traditional knowledge, conflict resolution, modern technology, governance systems, protected area management, education and awareness, public-policy dialogues, legal literacy, etc. to showcase successful marine and coastal biodiversity conservation in India. The report was submitted to GIZ and will be useful to help decision makers and field practitioners in formulating better coastal management strategies for marine and coastal biodiversity conservation.

#### **12.4 CEE and GIZ Exhibition on Sustainable Management of Coastal and Marine Protected Areas, India at IMPAC3**

As part of the Indo-German joint project - Conservation and Sustainable Management of existing and potential Coastal and Marine Protected Areas (CSM-CMPA), CEE designed and developed an exhibition depicting the sustainable management of coastal and marine protected areas (MPAs) in India. The

exhibition was developed as part of India's representation in the 3rd International Marine Protected Areas Congress (IMPAC3) held during October 21-25, 2013 at Marseille, France. CEE developed the content and panels for the exhibition in partnership with GIZ to showcase India's efforts in Coastal and Marine Biodiversity Conservation.

The exhibition material showcased:

- The richness of coastal and marine biodiversity in India
- The status and trends of MPAs
- Success stories in MPA management
- Good practices in coastal and marine biodiversity and traditional knowledge protection
- Awareness raising and educational practices aimed at conserving coastal and marine biodiversity

CEE was involved in the content development, its finalisation based on suggestions from MoEF&CC and GIZ, and production of the panels/exhibits. A CEE representative along with a representative of GIZ travelled to the venue to take care of the execution and facilitate the exhibition at the Conference for the visitors. The panels were self-explanatory. Several brochures developed as part of this provided further information on India's coastal and marine protection efforts. Many international marine conservationists/ MPA managers, technical and scientific consultants, students and young professionals, NGO professionals, local and national government officials visited the exhibition booth.

Visitors were impressed by the richness of India's marine biodiversity and also the unique inter-governmental partnership

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projects on biodiversity conservation between Germany and India. The participatory approaches in India's MPA management and community based coastal conservation areas were particularly appreciated.

### **12.5 Information, Education and Communication (IEC) for Maharashtra Gene Bank Project**

The project aims at community based studies and conservation of genetic resources of traditional varieties of crops, domesticated animals, marine and forest based resources, grassland and fresh water ecosystems in the state of Maharashtra. It is supported by Rajiv Gandhi Science and Technology Commission, Government of Maharashtra and is coordinated by IISER, Pune. Initiated in January 2013, this project will run over five years. It brings together 21 community-based organisations and research institutions towards implementation of this unique state level project. The IEC component coordinated by CEE cuts across all the thematic areas and involves working with about 200 schools and nearby communities in different eco-regions of the state in about 14 clusters.

### **12.6 Educational Materials on Mangroves in Mumbai**

The Mangrove Cell, Mumbai, of the Forest Department, Government of Maharashtra

supported the development of materials for public awareness about conservation of mangroves in the Mumbai Metropolitan Region. The materials developed were as follows.

- Two posters and four rollup-standees were developed for school and public education with content on mangrove ecosystem and its unique features, its ecological benefits and services to the citizens of Mumbai, map of major mangrove areas in Mumbai, the threats to mangroves in Mumbai, legal protection available to mangroves, plantation of mangroves and the need and ways for conservation of mangroves by citizens.
- Four cinema slides and three hoarding designs were also developed for conducting a campaign on public awareness for mangrove conservation in Mumbai highlighting the issues of encroachment and waste dumping in the mangrove areas and actions for conservation of mangroves and reporting of violations to the Mangrove Cell, Forest Department.

The materials developed will be used by the Mangrove Cell to spread awareness about the importance of mangroves and its benefits as an ecosystem to the coastal community and Mumbai metropolitan area. The posters will be disseminated to the schools and colleges in the region.

# Disaster Preparedness and Rehabilitation

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CEE Himalaya, in the year 2013-14, was actively involved in the relief and rehabilitation of the disaster affected people in Uttarakhand, after the cloud burst, flash floods and landslides of June 16-17, 2013.

## 13.1 Disaster in Uttarakhand

The state of Uttarakhand was badly affected by the calamity that struck on June 16-17, 2013, resulting from cloudbursts followed by flashfloods, landslides and incessant rains. A population of 34130 in 8876 families from 323 villages lost their homes and livelihood as a result of the disaster. In Uttarkashi district, 837 houses, 175 schools, 14 anganwadi centres were reported damaged during the floods. All roads and a number of bridges got damaged, making many of the villages inaccessible. Of the six blocks of Uttarkashi district, Bhatwari and Naugaon were the worst hit.

CEE Himalaya concentrated its work in the two worst affected districts, Uttarkashi and Chamoli, addressing psychosocial care and support, Disaster Risk Reduction (DRR) awareness, Information Education and Communication material production and



CEE team on its way to schools for UMANG programme, Uttarakhand

dissemination, relief distribution, orientation training to teachers and resource persons on tackling trauma, providing support to affected children and adults, and later on, taking up reconstruction of the damaged schools.

CEE undertook elaborate relief work at Uttarkashi through its programme Umang - Joy of Learning, with JSW Foundation providing support for it.



Children engaged in UMANG programme, Uttarakhand

### 13.1.1 Psycho Social Care and Support Programme for Children

The most affected and traumatised section of population during the disaster were children who could find no help and support as their parents themselves were going through shock and distress. CEE implemented the programme Umang - Joy of Learning for providing psycho social care and support for children, both school going and non school going, in schools of Uttarkashi. The programme included a number of activities with children in the form of action games like Blind Faith, Chinese Whisper, Who Am I?, Way of life, paintings, storytelling, experience sharing and poems, in order to encourage them to bring out the trauma hidden within



Who am I Game during nature tour of CFP in Lucknow

them and make them relaxed, free and confident. The programme that started in August 2013 covered about 50 schools in Uttarkashi, orienting 7000 students and 650 teachers till the month of January 2014. Along with that, children were taught ways to save/protect themselves in times of disaster. For further reinforcing this, CEE Himalaya developed IEC material, keeping in mind the disaster situation, and emphasising quick steps of safety and prevention to be followed during a calamity.

The IEC material included Riskland Game Kit, Psycho Social Care Brochure, Disaster Preparedness Calendar cum Year Planner, Notebooks, Table and Community Calendar; these were distributed among the students and community so as to create awareness about the causes of disaster and steps to be taken to save oneself from the damage caused by disasters like floods and earthquakes.

The IEC material developed by CEE post disaster and funded by JSW Foundation included the following.

- Disaster Preparedness Calendar ñ ëTaiyyar Rahein! Jokhim ko kam kareini (Be Prepared! Reduce Risk!!) - Instructions given regarding dos and don'ts during and after disaster.
- Riskland Preparedness Kit ñ ëAiye Aapdaon se Bachna Seekheini (Let's learn to Prevent Disasters) ñ Board game by playing which students can learn what disasters are, the do's and don'ts during various disasters.
- Note Books ñ ëUmang- Shiksha Ka Anandi (Umang - Joy of Learning) - Steps to be taken during disasters such as earthquakes, landslides, fire, cloudburst, thunder, lightning and floods are mentioned in the note book. The set comprises of six notebooks ñ two each for English, Hindi and Mathematics.
- Psycho Social Care Brochure ñ ëBacchon ko Tanav Mukht Rakhne mein Abhibhavakon aur Adhyapakon ki Bhumikai (Role of Parents and Teachers in Keeping Children Trauma free) - The brochure deals with identifying symptoms of trauma affected children and ways to handle them and bring them out of stress.
- Community Calendar ñ ëSuraksha Hamara Adhikaar Hai! Apne Vidyalay ko Surakshit Banaini (Safety is our right! Let's make our school safe) - specially prepared for the disaster prone state of Uttarakhand, with a list of important local festivals and fairs that are not known to many people, especially the younger generation.

Along with children, the Umang programme included teachers, education officers,



volunteers and local youth in its target group so as to generate awareness about trauma, especially in children, post any disaster. It imparted knowledge about identifying and handling such trauma, not only to school teachers, but also anyone who would come into contact with such children. By October 15, a total of 6329 students were covered in the programme, with 3238 boys and 3091 girls. The number included a range of age groups, from primary up to inter college.

### **13.1.2 Exhibition of IEC material of CEE in Krishi and Vikas Mela, Uttarkashi**

An exhibition of the IEC material developed by CEE was organised on January 17, 2014 on the event of Maagh Mela in Uttarkashi. Sarva Shiksha Abhiyan (SSA) Uttarkashi invited CEE Himalaya to share their exhibition material during their Krishi and Vikas Mela. CEE shared the IEC material prepared for Medicinal and Aromatic Plants under the GoI-UNDP-GEF project as well as that prepared for Uttarakhand Disaster Response funded by JSW Foundation.

IEC Material exhibited related to Aromatic and Medicinal Plants exhibited include:

- Cultivation Tips ñ Help Conserve Medicinal and Aromatic Plants! Know them, Use them, Cultivate them - This is for farmers who are interested in taking up cultivation of Aromatic and Medicinal Plants.
- Book Labels ñ with pictures of medicinal plants and information about them.
- Table Calendar ñ Save Himalayan Medicinal Plants - Pictures of the rich biodiversity of India with pictures.

- Diary 2014 - with information on the scope and work being done in the sector of MAPs in the state.
- Wall Calendar 2104 ñ with pictures of 12 species that has potential for cultivation.

IEC Material designed for disaster affected/prone areas and exhibited include those given in 13.1.1.

More than 5000 people from all blocks of Uttarkashi visited this exhibition to understand about their local culture, livelihood opportunities, achievement of the Education department and social organisations. A lot of visitors appreciated CEE's IEC material and its quality, especially the Community Calendar.

### **13.1.3 Training on DRR for Teachers/ BRCs/CRCs**

Trainings on Disaster Risk Reduction were organised by CEE Himalaya for teachers, Block Resource Centres (BRCs), Cluster Resource Centres (CRCs), Master Trainers, Community leaders from August 19-22, 2013 in Uttarkashi, covering in all 59 participants. The main objective of the trainings was to identify the list of damaged schools and categorise them into three groups, viz. Red, Blue and Green. The Red ones were the most damaged schools where education was totally disrupted; the Blue ones were schools that were not damaged but education was disrupted as the roads and paths leading to the school were damaged and rendered unsafe, and teachers and students were not able to come to schools for reasons of safety and others. The Green ones were schools that had not suffered much damage and education continued. The Red ones were the first priority

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to address, followed by Blue. CEE Himalaya, with other humanitarian agencies and along with SSA, provided support to the teachers of Red and Blue categories and helped resume education there. Qualified local youth were enlisted, trained and entrusted the responsibility of carrying out education till the teachers could resume their duty and normalcy was restored. CRCs and BRCs were also trained on psycho social care, so that they would act as Master Trainers and further devolve the training to teachers at block and cluster levels.

During the training, presentations were made covering various aspects like - Recovery from Trauma, Psycho social care and support, and Success story of Kashmir earthquake 2005. The participants were involved in activities and games like Blind Faith, Chinese Whisper and Emergency Route that helped quick learning. Handouts of knowledge material used in Kashmir for rehabilitation at the time of the earthquake of 2005 were shared with the participants.

#### **13.1.4 Orientation of Teachers/BRCs/CRCs/Trainers**

The Umang programme was used to provide orientation on Psycho Social Care and Support for teachers, Block Resource Centers, Cluster Resource Centers, Non Government Organisations, Master Trainers and Volunteers covering all schools in Bhatwari Block, Uttarkashi. This was undertaken in order to increase the expanse and outreach of the programme, as the CEE team felt that the entire area needed help and support but the outreach was not enough to cover so much. Teachers and other community members were taught about the symptoms of trauma in

children, to identify the level of trauma being faced by them and also counseling techniques to handle the affected children. Orientation programmes for Teachers, CRCs, BRCs and stakeholders from the local community were also organised in Khalsi village, Chiniyalisaur Block, Saura village, besides Bhatwari Block, and a Teacher's Orientation Workshop on trauma and rehabilitation in Uttarkashi town.

In all 623 people ñ teachers and other target group members - were trained, comprising 444 males and 179 females. The Umang programme had a positive impact on affected schools and other communities of Uttarkashi, as it helped children recover from their stress gradually and try to get back to their normal studies and games; it also helped teachers/ other people to identify the trauma affected children and treat them. The turnout and attendance of teachers in schools also increased. The Education Department, administration and local NGOs invite the CEE team regularly in their psycho social care training programme as resource persons. The programme is still being implemented in disaster affected areas to provide support and care to the inhabitants.

#### **13.1.5 Distribution of Relief by CEE**

Team CEE distributed 2000 school bag kits funded by JSW and conducted 50 disaster preparedness wall writings at different places in Uttarkashi. The bag kits were distributed in three blocks of Uttarkashi: 22 in Bhatwari, 12 in Dunda and 27 in Chiniyalisaur. The total number of students covered in the programme was 1934 (881 boys and 1053 girls). Bag kits were also distributed by CEE Himalaya to twelve orphan meritorious students of Uttarkashi in an event organised by



School Kit Distributed to Orphans in Uttarakhand

Saumyakashi Rotary Club on December 22, 2013 in Uttarkashi.

Each bag kit comprised of a school bag, six notebooks (two each for Hindi, English and Mathematics), and a pencil box (10 pencils, a sharpener and an eraser). Each IEC material distributed to schools contained five numbers each of School Planners, Community Planners, Disaster Brochures, Table Calendars, Riskland Game Kits and Paryavaran Mitra Books. The certificate for the same was issued by the Education Department.

### 13.1.6 Plan India supported Relief Distribution in Chamoli District

The district of Chamoli also experienced great loss of life, property and livelihood due to the disaster. CEE Himalaya, with support from Plan India, undertook preliminary rapid needs assessment of the disaster affected areas in three selected blocks that were worst hit: Joshimath, Tharali and Ghat in the district of Chamoli, after meeting with the government and the community members. The need assessment and process of beneficiary identification was conducted by CEE and the

local NGO partner AAGAAS Federation at Pandukeswar through personal visits and meetings with stakeholders.

After the assessment, five Gram Panchayats consisting of 20 villages with a population of 3085 people and 16 schools (comprising 501 students and 34 teachers) were supported in terms of both food and non food assistance, alternative temporary learning centres for the schools and wall writing/pamphlets with government support with key health and hygiene messages. This support was provided for a full month to 1785 persons of 357 families persons whose homes were damaged or destroyed and therefore were at risk for food security. The listing of the families was conducted in consultation with the government and community members. The villages that received relief were Pinula Ghat, Pandu Keshwar, Vinayak Chatii, Govind Ghat, Aturi Pturi, Bena Koli and Pulna Bhundar in Joshimath Block; Mattie, Sirtoli, Dobadkath, Haitmoli, Shoeghaie, Kanda Basti, Goward, Seekari, Beeruwathi, Vimalata and Kaltara in Ghat Block; and Harinagar and Latal in Tharali Block.

### 13.1.7 Relief Distribution

Non Food Item (NFI) kits benefitted 1235 people from 247 families in Joshimath, Ghat and Tharali blocks. The full family kits proved very useful to the beneficiaries, who appreciated the abundant quantity and type of material they contained.

Dry Ration kits were provided to 370 families benefiting more than 1850 people in Joshimath, Ghat and Tharali blocks. Like the NFI kits, the Dry Ration basket was also found to be very useful in their hour of need; their composition

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and quality were highly appreciated by the people.

School Kits were distributed to 16 schools comprising 501 students and 34 teachers from three blocks - Joshimath, Ghat and Karanprayag. Each school kit comprised of two tripals, dari/mats, six chairs, three tables, two blackboards, chalk, one water filter and a bucket with jug, each kit costing Rs. 15,000.

### **13.1.8 Spirulina Distribution to Uttarakhand Flood hit People**

The CEE Himalaya team, on its own as well as in association with its local NGO partners Lok Paryavaran Shikshan Sansthan (LPSS) and AAGAAS Federation, organised an awareness camp on the benefits of Spirulina, which is a food supplement in the form of tablets and capsules. At a time of disaster, when roads and bridges were washed off, transporting heavy and voluminous relief material is a big deterrent on the hills; while the low weight, energy providing and nutrition packed Spirulina is safe for consumption for everybody and a boon in such situations. Spirulina is a blue green alga rich in Vitamin A and calories. It is one of the best and cheapest available food supplements.

At the awareness camp, the benefits, convenience, nutritive value (calorie density and protein value) of Spirulina was explained to the people. It was also explained that Spirulina is harmless with no side effects, and beneficial to everyone including malnourished children, pregnant women and physically challenged people alike. The dosage recommended was, six tablets daily (two each in the morning, afternoon and evening) for people up to the age of five years and double

dosage, i.e. 12 tablets daily for people above five years age.

Forty flood affected families of Rishikesh received Spirulina tablets during the programme. Spirulina Foundation supplied the stock of tablets (each bottle containing 120 tablets) to the CEE Himalaya office in Dehradun free of cost. On September 17-18, 2013, around 500 bottles of Spirulina were distributed to the needy villagers of ten villages: Pahi, Dwari, Bhatwari, Salang, Malla, Tinar, Rethar, Syaba, Patti and Gangori in Uttarkashi.

The gesture and support of the Spirulina Foundation based in Tumkur, Karnataka who supplied Spirulina to CEE Himalaya by generating support from other agencies was gratefully acknowledged.

### **13.1.9 Reconstruction of Damaged Schools**

Schools in the flood hit districts were badly affected, with a number of schools being completely washed off, and many suffering extensive damage. As a result, the education of children suffered. CEE team conducted meetings for need assessment of schools with the government and categorised them according to the intensity of damage, accessibility and availability of teachers into Red (most damaged), Blue (less damaged) and Green (minor damages). Seventy Red schools were identified in the process.

CEE team surveyed 24 damaged Intermediate and High Schools in six blocks of Uttarkashi District, namely, Dunda, Bhatwari, Chinyalisaur, Naogaon, Puraola and Mori, according to the list provided by the Education Department. It proposed the reconstruction of two schools GIC Maneri and GIC Jogath in

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Bhatwari Block of Uttarkashi. So far, follow up meetings, soil profile analysis of the proposed site, and preparation of draft building plan and design for the schools has been completed.

### **13.2 Disaster Management Training Programme**

Fifteen Disaster Management training programmes were conducted in Hoshangabad District of Madhya Pradesh for schools, colleges and the general public, covering about 1500 participants.



# 14 Facilitating NGOs and Community Initiatives

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CEE has taken up a range of innovative projects to facilitate NGOs/CBOs to support Sustainable Integrated Development Programmes, including those under Corporate Social Responsibility (CSR) with Public and Private Sector participation. These have been taken up in collaboration with national and international partners and small briefs of such ongoing and new programmes taken up during the financial year are given in this chapter.

## 14.1 GEF/UNDP OP5 Small Grants Programme

CEE while acting as the GEF-CSO

(Civil Society Organisation) Implementing Partner for the Global Environment Facility (GEF)/United Nations Development Programme (UNDP) Small Grants Programme (SGP), entered into the second year of GEF Operational Phase 5. The US \$11 million OP5 programme became operational in October 2012 with the signing of the project document between UNDP and MoEF&CC, and the Project Cooperation Agreement between UNDP and CEE in November 2012 to implement the project.

The SGP globally assists the developing countries in fulfilling their national commitments arising out of international treaties and conventions related to the global environment, through local actions. The SGP believes that the global environmental problems can be addressed effectively, if the local people are involved in decision making at all levels within projects and have control over resources. The SGP demonstrates that with a small amount of funding, the communities at the grassroots level can make a significant difference in their livelihoods

and the environment. The SGP influences and supports the global climate interventions through thematic areas, like arresting land degradation, biodiversity conservation, Climate Change and Persistent Organic Pollutants (Chemical Management).

In a short span of time, nine Regional Committee meetings and four National Steering Committee meetings took place. A total of 52 community-managed projects became operational on the ground. This forms almost half of the total expected commitments expected in the project during the entire five year duration. CEE's seven Regional Offices provide strong support to take this programme to every nook and corner of the country.

The SGP is being managed by CEE in India since the year 2000, starting from Operational Phase I (OP1) to OP5. A total of 379 projects have been approved, out of which 327 have been completed so far. Forty eight of our NGO partners have been felicitated with national and international awards during the past 13 years. This programme is viewed as a flagship programme of GEF/UNDP amongst the civil society fraternity. The popularity of this programme is so high that against one iCall for Proposals invited in July 2013, more than 1200 proposals were received, in addition to numerous proposals that keep pouring in from the different regions every day. The details of all 379 projects can be accessed by all the 123 SGP participating countries through the global intranet network and can also be viewed locally at SGP's website: [www.sgpindia.org](http://www.sgpindia.org).

## 14.2 COMDEKS Programme

The COMDEKS (Community Development and Knowledge Management for the Satoyama Initiative), a Japanese funded programme to support landscapes management in

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Uttarakhand, became operational in June 2013 with a funding of US \$255,000. The programme is designed to support local community activities to maintain and rebuild socio-ecological production landscapes and to collect and disseminate knowledge and experiences from successful on-the-ground actions for replication and up-scaling in other parts of the world.

The COMDEKS is executed by the United Nations Office for Project Services (UNOPS) and CEE acts as the National Host Institution (NHI). It follows the SGP Operational Guidelines and operates like the GEF/SGP programme, also seeking guidance from the GEF/SGP National Steering Committee chaired by the MoEF&CC, GoI.

Six proposals were approved in Uttarakhand to support three types of landscapes spanning from lower, middle to higher mountainous terrains, all aiming directly at the expected outcomes listed in the Landscape Strategy that was developed. All the projects became operational from July 2013.

After developing the baselines for each of the six projects, Participatory Rural Appraisals were conducted with the help of 20-30 village meetings in each project, and the entry level activities were initiated for building confidence with the stakeholders and for the smooth sailing of the projects. More than 164 village meetings with women Self Help Groups were held in all the six projects during the last 12 months, which has led to a saving of approximately US \$3,300 in 36 women SHGs (750 members) and leveraged bank loans and grants of US \$1,900. This has resulted in the community members investing their money in simple, low cost technologies like biogas units, fuel efficient cook-stoves, and processing of iBi grade fruits to make jams, fruit juices and

other market based products ñ these investments are also ensuring better food security for the families.

- About 48 trainings and capacity building workshops have been held to create awareness and provide vocational skills like setting up solar energy stations and techniques to produce organic farm manure.
- About 14 families have started earning about US \$180 per month by milling grains through 16 water mills that have been set up, with 21 households benefitting from this.
- Two milk collection centres have been set up benefitting 125 families.
- Local millets and lentils are being cultivated and two seed banks have been established benefitting 100 farmers.
- Three training-cum-food processing and production centres have been set up for producing juices, pickles and squashes and 38 members have been trained.
- About 200 litres of gooseberry and 220 litres of orange juice with a total product value of US \$935 have been sold.
- An enterprise based on Himalayan Nettle has been developed in three villages, benefitting 23 people who have been trained and have adopted weaving as a livelihood.
- A Community Facilitation Centre established for promoting eco-tourism is benefitting more than 15 households.
- Breed improvement and animal husbandry practices have been adopted benefitting more than 50-60 households.

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- In all, nine biogas units have been set up and 52 MTs of CO<sub>2</sub> emission reduced. Firewood worth US \$3,400 has been saved due to this, leading to less investment by people in fuel purchase which has created surplus income in their families.
  - The NGO partners regularly interact with various State Government Departments, like agriculture, animal husbandry, tourism, horticulture, agricultural banks, Medicinal Plants Board, State Biodiversity Boards, State Renewable Energy Department and Forest Department, and access resources in the form of their scientists/officials for training the community and conducting programmes in their training centres.
  - Village communities are being linked through SHGs with government schemes: e.g. Poly-houses and kitchen gardens, cooks, and driver trainings. The projects are also accessing subsidies from various schemes and linking with COMDEKS activities to expand their scope.
  - The Forest Department of Uttarakhand state has linked up with COMDEKS project for enhancing the production of Himalayan Nettle and also buying back the products for sale through their State Forest Department Board.
  - The Eco-Tourism Board of the state Government is also linking up with the project by providing state guidelines for them and also master trainers for training community members in a range of areas.
  - New technologies have been interfaced in biogas, improved cook-stoves, poly-houses, and community-managed low cost/easy to handle food processing technologies.
  - CEE has, in every activity, advocated and guided the NGO partners to formulate community contribution agreements, sharing costs and roles and responsibilities in both planning and implementing the project activities, which has led to better ownership at the community level for the resources created.
  - Three case studies were prepared and shared with COMDEKS Headquarters for insertion in their forthcoming newsletter/journal. One article on India Landscape approach already appeared in the previous issue of the COMDEKS newsletter.

### 14.3 Medicinal Plant Gardens Programme

The programme Development of Medicinal Plants Gardens in Schools and Colleges of New Delhi, 2013-16, is a joint initiative of the National Medicinal Plant Board, Ministry of Health & Family Welfare, Government of India and CEE, that targets 300 schools and colleges of New Delhi. The project ensures sustainable practices for the use and conservation of medicinal plants by partnering with schools to create Medicinal Plant Gardens.

The programme, being implemented by CEE Delhi, promotes inter-generational knowledge among schools for effective processing of the benefits from medicinal plants. Through the development of Herbal Medicinal Plant Gardens in schools and colleges, conservation of medicinal plants will be addressed along with their use in our day to day life for better health and immunity. At present, a wide range of medicinal plants face the threat of extinction due to several factors like deforestation, over-exploitation, improper collection due to lack of knowledge about proper techniques and poor investments in adopting their use.

Application and conservation of medicinal plants in our day to day life will surely promote their values among the society.

Based on their importance and the need to conserve, CEE listed 26 species of herbs and shrubs which will be planted in the Medicinal Plant Gardens. Till now 70 schools have partnered with CEE to develop medicinal plants gardens. Out of these, 10 schools will develop mother nurseries to supply the saplings to the schools within the vicinity of their respective region. An orientation workshop for schools Schools Orientation Programme on Developing Medicinal Plant Gardens has also been conducted where 88 school principals and teachers participated, with a view to promoting the project in their schools and inculcating medicinal plants cultivation practices among the students.

To effectively implement the programme in all the schools, CEE Delhi has developed a partnership with the Department of Environment, Government of the National Capital Territory (NCT) of Delhi. The linkage will help sustain the activities by the eco-clubs. Two NGO partners ñ Eco Roots Foundation and I-Dream have also partnered



A skit promoting herbs for health being performed by Bethany Jeevan Dhara

with the project to extend its coverage through networking and capacity building.

Two educational materials have been developed for schools by CEE as part of this project:

1. Medicinal Plants and their Usefulness ñ a booklet to promote the values of medicinal plants among the students and teachers
2. Developing Medicinal Plant Gardens ñ a brochure to disseminate the project philosophy, objectives, strategy and activities of the project

#### **14.4 Partnerships of GEF UNDP/SGP & CEE**

##### **14.4.1 Partnership with Sail**

A joint partnership with Steel Authority of India Limited (SAIL) entered into the second year on the project Sustainable Livelihoods, Incomes of the Poor and Marginalized in Gonda District (Uttar Pradesh) through Landscape and Institutionalised Micro-credit Approaches. This two year project was approved for Rs.117.65 lakh, with a direct fund of Rs.80 lakh from SAIL and Rs.37.65 lakh as co-financing. The project aims at enhancing the quality of life and providing increased incomes for the poor and marginalised in 12 villages, through a community-led integrated approach that uses an enterprise-based renewable agricultural practices, and a landscape approach. The project also aims to enhance the skills and capacities of farmers by introducing low cost, easy to understand and implement modern agricultural and allied technologies, based on local conditions and resources available, thereby enabling them to increase their knowledge and income in a range of activities in natural resources management. Simple

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technologies like improved cook-stoves, setting up solar power stations and biogas units are being introduced to bring in energy efficiency for better household management and reduced drudgery for women. The local people are being encouraged to establish sustainable business enterprises for increased incomes based on Mentha and other traditional crops.

#### **14.4.2 Partnership with Arya Iron & Steel Company (Aisco)**

AISCO has partnered with GEF/UNDP CEE SGP to develop and enhance a sustainable approach to Corporate Social Responsibility (CSR) by addressing the CSR activities in a socially responsible way for the communities, by including environmental, financial, governance and economic concerns as its integral part. AISCO, with technical support from CEE, has started implementing projects at Barbil in Keonjhar District in Odisha with these objectives. They have also expressed their interest to collaborate with CEE to take up a CSR Programme to encourage a more community based, participatory process oriented, gender sensitive (involving women at all levels) approach, with a clear focus on what sustained actions need to be undertaken in the villages to ensure a better quality of life for the local people that is also sustainable. A Memorandum of Agreement is under process for this. The aim of this is also to raise the local capacities of AISCO to a more sustainable development approach, by encouraging and leveraging knowledge and technologies which are low cost, easy to handle and manage by the locals, and partnerships with a range of stakeholders.

#### **14.4.3 Partnership with AVH Chemicals**

A Memorandum of Understanding (MoU) has been entered into with AVH Chemicals by

CEE under AVHC's Corporate Sustainable Development Programme, to encourage a more community based, participatory process oriented, gender sensitive (involving women at all levels) approach, with a clear focus on actions that need to be undertaken in the villages to ensure a better quality of life for the local people that is also sustainable. The project is for a duration of two years - March 2013 to March 2015 - with a funding support of Rs.16.53 lakh and leveraging another Rs 50 lakh co financing. CEE is as the Facilitator/ Knowledge Partner to this CSR initiative and provides assistance for establishing a sustainable approach in the villages. Under this CSR programme, nearly 60 cook stoves; three health camps; and several educational, training and capacity building programmes, have been taken up with nearly 1500 households in four villages in an integrated manner. The scope of activities are discussed in advance and decided mutually between the communities and the stakeholders.

#### **14.4.4 Partnership with Airbus Corporate Foundation**

A unique partnership was established with the private sector Airbus Corporate Foundation (ACF). The ACF provides a wide arena for their employee-volunteers by providing opportunities for life-changing experiences through getting attached to the communities, learning their problems, providing solutions by taking up community work with their own hands and promoting cultural exchange. This gives the volunteers a chance to work on mitigating the effects of climate change and conservation of biodiversity in resource-hit tribal belts, by promoting alternate energy options like biogas units, which provide cheap, easy and clean fuel for cooking and reduced drudgery for



women in the households. The project covers 30 tribal villages of Gudalur Block, Nilgiris District, Tamil Nadu with 45 biogas units having been set up so far. Each of these 45 beneficiary households saves about 8-9 kgs of firewood per day and prevents deforestation. Through the 45 biogas units, greenhouse gases emissions have been reduced by nearly 1800 metric tonnes of CO<sub>2</sub> annually, i.e. 108,000 kg of wood saved which is equivalent to 1.8 kgs of CO<sub>2</sub> per kg of wood burnt (45 x 8 kg wood x 300 days per year). Each household also sells an average of 7-8 litres of milk per day earning an additional income of Rs.120 daily.

The entire funding of the programme is being undertaken by ACF with co-financing from the Government of India in the form of subsidy for biogas plants. GEF/UNDP/CEE SGP takes care of the knowledge management and provides technical support. The Centre for Tribal and Rural Development Trust (CTRD) acts as the local NGO. Four such expeditions involving 15-18 volunteering employees have taken place so far. Looking at the benefits accrued to the tribal communities and the environmental benefits accrued so far, ACF has extended this programme to cover four more expeditions till the year 2016.

### **14.5 Awards Won by GEF/UNDP CEE SGP Partners**

Seven GEF/UNDP CEE SGP-supported project partners won Awards during the year.

1. GEF/UNDP CEE SGP project partner, Foundation for Ecological Security (FES), Anand was awarded the Land for Life Award 2013 on the World Day to Combat Desertification (June 17, 2013). This Award is supported by the United Nations Convention to Combat Desertification (UNCCD), to recognise sustainable land

management. From among the 137 applicants from 62 countries across the globe, and 16 semi-finalists, FES was awarded the first place by a renowned panel of jurists from around the globe. The Award was for their efforts in empowering communities from over 5200 rural villages to take ownership of their local land, including dry-lands, forests and wastelands, and sustainably rehabilitate them; and for influencing policy on Commons at the national and state level. The Award was given to FES during the 11th meeting of the Conference of Parties to the UNCCD, held in September 2013 at Namibia.

2. Mr. Godhan Singh from Diyari Village (in Uttarakhand State), one of the members of the SHG Producer Group, under GEF/UNDP CEE SGP Project Partner, Mahila Haat, received a cash prize of Rs.10,000 from the District Officer of Almora on June 21, 2013 for Best Practices in Agriculture. The prize was given by the District Magistrate of Almora, Mr. Aksat Gupta.
3. Avany Women's Group, a women Self Help Group who have been practising vegetable cultivation and preparation of bio-formulations such as Panchagavya and others on a commercial scale, have won an award in March 2014 from the local Cooperative Bank, in recognition of their entrepreneurship. The award carries a prize of Rs. 5,000 and a certificate of appreciation. This SHG is a part of our GEF/UNDP CEE SGP project implemented by Peekay Tree Crops Development Foundation, Kochi (Kerala).

As part of the NGO's efforts to involve students in development activities, 100 students of a local school Mattathibhagam

Government LP School have been trained in vegetable cultivation and provided with seeds and seedlings to start farming in their respective homesteads. All 100 students have succeeded in the effort and in appreciation of this innovative approach, the school has been selected for the 'Good Lesson' award instituted by the Malayala Manorama Publications, which carries a cash prize of Rs.15,000.

4. An NGO's Radio Station Yerala Vani 91.2, Jalihal, run by GEF/UNDP CEE SGP project partner Yerala Projects Society, Sangli (Maharashtra state) has received the 'Most Creative/Innovative Programme Content Award' on March 13, 2014, which is a National Award for Innovation. They also received another award for their programme 'Changes in cropping and agricultural practices as per environmental change'. Both the awards were presented by Mr. Bimal Julka, Secretary, Ministry of Information & Broadcasting, on the occasion of the 3rd National Community Radio Awards ceremony.
5. Sujagriti Samaj Sewi Sanstha, Morena (Madhya Pradesh), GEF/UNDP CEE SGP project partner and NGO, received an award for the best work done under Paryavaran Mitra Programme (a joint initiative of the MoEF&CC and CEE). They received the award, consisting of a memento and a certificate, on April 29, 2014 at a function organised at the Conference Hall of the Regional Museum of Natural History, Bhopal.
6. Sarjna Samajik Sanskratik evam Sahitiyak Manch, a GEF/UNDP CEE SGP partner, was awarded for the best work under Paryavaran Mitra on April 29, 2014, at the same function mentioned in item no 5 above.

7. To promote biodiversity conservation and to celebrate the International Biodiversity Day, the Madhya Pradesh Biodiversity Board organised a competition for the best Biodiversity Garden on May 22, 2014, at the Conference Hall of RCPV Noronha Administration Academy. Sujagriti Samaj Sewi Sanstha, Morena (Madhya Pradesh), a GEF/UNDP CEE SGP partner, received the State Level award for the Best Garden. The award was given to the organisation for the praiseworthy work done by them in forest conservation, tree plantation and the garden. A shield, certificate and cash prize were presented to the President of the organisation.

#### **14.6 GEF UNDP SGP in CEE South**

The GEF SGP unit in CEE South reviewed and assessed the proposals received from the partners of the Southern Region. A state-wise data entry sheet was prepared for all the proposals and concept papers received from all over the southern part of the country. As proposal submission by NGOs is open all year round, this is an ongoing activity.

The team interacted with the partners and discussed the mandates and scope of GEF, through various means: telephonic conversation, mailing and physical meeting at the office. Materials on Climate Change and GEF SGP projects were provided to the partners for ready reference. Handholding of partners as and when required to strengthen their activities is part of the focus of the SGP.

The Regional Committee Meeting was conducted on February 27 and 28, 2014. Including new and scaling up ones, 101 proposals were tabled in the meeting.

Regarding the ongoing and completed projects in the Southern region, the state-wise data

sheet has been prepared for documentation and reference purposes. The projects are being assessed and the quarterly, mid-term and final reports are being collected and documented. Measurable results and success stories are also being documented.

The team members regularly coordinate with with the Regional Director and National Coordinator. Participation in meetings, workshops, advocacies, etc. has been helping in capacity building for the programme.

Besides the above, SGP partners ñ NGOs and their school partners - contributed 10000 pledges to the National Campaign on Biodiversity Conservation, an NBA initiative.

The SGP partners were communicated for contribution in the National Campaign on Biodiversity Conservation. About 10,000 pledges were contributed by the NGOs and their schools partners.

Discussions, preparation of concept notes and contacting donors for financial support; preparation of datasheets based on NBSAPS and national reports, were key activities undertaken by this group as part of the CBD project. Data analysis is the next step planned in the process.

### **14.7 GEF SGP in CEE Himalaya**

CEE Himalaya is the monitoring agency for UNDP's GEF Small Grants Programme in the north, with grants being provided to NGOs for innovative and nature friendly projects on biodiversity conservation, protection and promotion. About 80 proposals were received from Uttar Pradesh (49), Uttarakhand (18) and Bihar (13) during the year. This year a total of 80 proposals were received by CEE out of which 49 were received from Uttar Pradesh, 18 from Uttarakhand and 13 from Bihar. After

scrutiny, five (three from UP and one each from Uttarakhand and Bihar) were recommended for approval and nine for revision, while 66 were rejected.

### **14.8 GEF SGP in CEE Central**

The GEF UNDP Small Grants Programme is being coordinated from CEE Chhattisgarh at the Central regional level for the States of Maharashtra, Madhya Pradesh, Chhattisgarh and Goa. In the SGP's current phase, i.e. Operation phase IV, 10 proposals were approved and SGP grants sanctioned. Regular follow in the form of monitoring visits to SGP partners and identification of new NGOs working at the community level on GEF focal areas, is ongoing.

### **14.9 National Environmental Awareness Campaign (NEAC)**

For NEAC 2013-14, CEE was associated with the campaign in the capacity of a Centre of Excellence. CEE representatives worked with 20 Regional Resource Agencies (RRAs) located across the country and helped scrutinise about 10000 proposals received by the RRAs. Proposals shortlisted following the initial scrutiny by the RRA and CEE were



recommended to the regional committees. Following the pre scrutiny, CEE hosted four regional committee meetings. These meetings were organised simultaneously between September 24-27, 2013 in four cities, viz. Ahmedabad, Chandigarh, Delhi and Guwahati. CEE representatives were also members on these regional committees.

#### 14.9.1 CEE Himalaya

The meeting of the NEAC Regional Committee (Northern Region) was held at Chandigarh from September 24-27, 2013, for the scrutiny of NEAC project proposals received from the states of Jammu and Kashmir including Ladakh region, Himachal Pradesh, Haryana, Punjab, Uttarakhand and UT of Chandigarh, for participation in the NEAC 2013-2014. The following table gives the details of proposals received and recommended for financial assistance.

State/Region	No of proposals received	No of proposals recommended for financial assistance
Jammu	477	467
Kashmir & Ladakh	330	234
Haryana	1082	528
Himachal Pradesh	415	405
Uttarakhand	107	79
Punjab & Chandigarh	507	455
<b>Total</b>	<b>2918</b>	<b>2168</b>

The total budget allocation for the above amounted to Rs. 2,91,97,150.

#### 14.9.2 CEE Chhattisgarh

CEE Chhattisgarh was involved in pre-scrutiny of proposals as well as auditing the process, working with Chhattisgarh Environment Conservation Board (CECB), the State Nodal Agency for the NEAC scheme of the Ministry of Environment and Forests. In July and August 2013, CEE Chhattisgarh scrutinised 282 proposals and submitted their observations and recommendations about the process to MoEF&CC.

#### 14.10 Give Goa Initiative of Goa Institute of Management (GIM)

Goa Institute of Management has initiated a programme titled Give Goa as part of which, their First Year students are attached to institutions, industry and NGOs to help in their respective area of work. CEE Goa State Office is a partner in this initiative. Sixteen students from GIM were attached to CEE Goa State Office to work on Biodiversity Conservation Education Programme in schools. As part of this, the students developed a PowerPoint presentation on coastal and forest ecosystems and took it to 20 schools in Goa to sensitise the students about conservation of biodiversity. The GIM students visited schools and colleges on every Thursday for 18 weeks starting from July 2013. As part of a mass awareness campaign, they also developed a FaceBook page on Biodiversity Conservation through Education and managed it throughout the activity period. A documentary on Think Eat Save was also screened in all the schools they visited. At the end of their stay, they developed a short film on their experience and uploaded it on You Tube.

## **15.1 The Green Teacher Diploma in Environmental Education: A distance education programme in EE for in-service teachers**

The Green Teacher Diploma in Environmental Education is a distance learning programme designed by CEE India, in partnership with and with support from Commonwealth of Learning (COL), Vancouver, Canada. The programme offers practising teachers and environmental educators an opportunity to empower themselves with the requisite knowledge and skills to effectively transact EE concepts in the classroom. The course is a unique way of strengthening practising teachers' skills in EE, besides providing the much required opportunity to teachers for sharing their experiences with each other.

In 2013, about 50 professionals enrolled for the programme, which was offered in Ahmedabad, Pune, Delhi and Silvaas. Two contact sessions were conducted at each of the Study Centres.

## **15.2 Training in Result Based Management for Provincial Education Managers from Afghanistan**

A group of 15 provincial education directors and education managers, were oriented on Result Based Management (RBM), a participatory and team-based approach to programme planning, which focuses on achieving defined and measurable results and impacts. The ten day training-cum-exposure tour from March 9-19, 2014 was organised by the Networking and Capacity Building (NCB) Group of CEE. The programme highlighted a range of global to local cases, where RBM in

Formal Education is being practised and implemented to improve programme delivery and strengthen management effectiveness, efficiency and accountability. This programme was supported by the Swedish Committee for Afghanistan (SCA), a non-governmental organisation, working to help rebuild Afghanistan after decades of war and destruction.

## **15.3 Training in Science Education**

CEE bagged the bid for training and capacity building the education practitioners of Maldives in science education. This capacity building assignment has been commissioned to the Centre by the Swedish Committee for Afghanistan. The idea is to train creative teachers and education provincial managers in effective teaching and learning of science at the primary school level.

The capacity building programme has been designed as a series of three time training exposure of seven days each. Over 50 teachers and education managers will be undertaking this programme.

## **15.4 Facilitating Change Processes in Eco Schools of Dubai**

CEE India in association with Emirates Wildlife Society (EWS) - World Wide Fund for Nature (WWF), United Arab Emirates (UAE) conducted a pilot programme to strengthen teachers' capacity and ingenuity in leading school level initiatives in UAE through an initiative called eGreen Teacher-Eco School Programme. EWS-WWF Dubai is the nodal agency that is engaged in facilitating Eco Schools Programme in the UAE.

As part of the eight month long Green Teacher-Eco Schools Programme, offered in a blended



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mode, two contact sessions were held in UAE, in October 2013 and January 2014. Through the contact sessions, the teachers were oriented in using different teaching-learning methodologies to transact EE effectively; develop a basic understanding of project management; and discuss their Eco School micro-projects. The pilot batch of Green Teachers will continue to be a part of the Green Teacher UAE network and will become the torch bearers for a number of activities of this Programme in the future.

### **15.5 Joyful and Effective Teaching and Learning of Science in Maldives**

CEE served as the technical partner to the UNESCO project titled 'Joyful and Effective Teaching and Learning in Science in Maldives'. The Project is funded by the Japanese Funds-in-Trust, implemented by UNESCO New Delhi Office, in partnership with Maldives National Commission for UNESCO, National Institute of Education, Ministry of Education, Government of Maldives. The Project aims to enhance teacher and teacher training capacity in the Maldives, in the teaching and learning of Science and Environment.<sup>1</sup>

The key activities undertaken as part of the project include:

1. Training Needs Assessment
2. Material Development Workshop for teaching and learning in science
3. Master Trainers' Orientation Programme in India
4. Orientation Programme for 30-50 Teachers for Innovative Science Education

5. Pre-service teacher training in teaching and learning in science and environment
6. Establishment of a Training Learning Centre.
7. Developing delivery framework for distance learning to support teacher training

Pre-service Teacher Training and developing the framework for distance learning in the Maldives is yet to be carried out; all the other activities have been completed.

Under this Project, CEE provided its expertise to different government agencies under the Ministry of Education, Government of Maldives. The UNESCO National Commission for Maldives took the overall responsibility for coordination of the Project in the Maldives, CEE provided the technical inputs in terms of teacher capacity building, material development, training resource development, and others.

### **15.6 Gramdoot: Mobile Technology to Help Farming Communities**

Led mainly by the team at the Rural Programmes Group and supported by the technology team at the NCB Group at the Centre, the idea of Gramdoot programme is to test the effectiveness of technology operated services in appropriately fulfilling the mandate of community development and empowerment. The project is being supported by the Commonwealth of Learning, Canada.

During the year, the Gramdoot team developed a multimedia on Animal Health and Upkeep. The package reached out to identified communities under the project, in selected villages in Gujarat.

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### **15.7 CEE Ka Bioscope**

The GIS Cell continued to offer 'CEE ka Bioscope' (CKB): an ICT enabled fun-filled learning programme for school children. This year, in addition to grades 7 and 8, the CKB modules reached out to students of Grade 9 as well. The themes dealt with included Science, Social Science and Economics of Agriculture; Population and Consumption; Town Planning; Waste Management; Traffic Management; Carbon Footprint; Lifestyle Choices.

The modules for each grade included GIS and ICT based lab-sessions, classroom-based sessions, field visits as well as interaction with relevant experts. At the end of the CKB module, students presented their work, research and findings to a panel of experts and were awarded CKB Certificates on completion of the six month CKB module.

During the year, over 300 students of grades 7, 8, and 9 undertook CKB modules. The themes dealt with included Population, Waste Management, Sustainable Agriculture and Earth and Earth Sciences.

### **15.8 Supporting Coordinators of Cluster Resource Centre and Block Resource Centre of Bihar with Training Material**

Between August 2012 and February 2013, a series of 10 day training workshops for teachers; CRCs and BRCs of Bihar were conceptualised, developed and coordinated by a joint team from NCB and the Rural Programmes Group of CEE. A training module titled Learning to Support Learning: Enhancing the Quality of Teaching and Learning in Schools was designed, developed

and delivered by NCB in October 2013. The module dealt with concepts like education and communication; learning theories; effective child-centered teaching learning approaches; assessment and others. A copy of this module was shared as training material towards preparing 40 master trainers to contribute towards enhancing the quality of education in government primary schools of Bihar. This initiative was supported by Save the Children, Bihar State Office.

### **15.9 Other Activities**

The team members at NCB were involved in contributing to some of the other projects and activities of the Centre. These include taking subject specific sessions in EE programmes for students of the Aravalli Institute of Management. The NCB and GIS team also conducted sessions in other teacher training workshops at the Centre and coordinated GIS based learning and activity corner during the World Environment Day event.

A paper on Teacher Professional Development through Distance Learning was published in the book on E-Learning in Teacher Education: Experiences and Emerging Issues published by the Faculty of Education, University of Delhi in 2014.

### **15.10 EE Training Module for NGOs**

CEE North was invited by Varanasi Nagar Nigam to facilitate a two day module for partner NGOs and officials on environment education working as part of the Public Awareness and Public Participation (PAPP) component under the JICA assisted Ganga Action Plan project at Varanasi. CEE facilitated the Environment Education Orientation Workshop in September 2013 at Varanasi Nagar Nigam. The workshop was attended

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by around 30 participants including four representatives from six partner NGOs who will be working with 60 schools of Varanasi along with the Nagar Nigam officials. The workshop focused on clarifying ecological, economical and socio-cultural linkages related to Ganga. Participants were helped to understand various dimensions linked to sustainable development and how education can be an effective tool in this direction. Technical sessions on water and sanitation, waste management, climate change, etc. were also conducted during the workshop. CEE team guided NGO representatives in planning school activities and drawing up an action plan. The Municipal Commissioner joined the workshop and addressed the participants during the concluding session. Each participant received a certificate of participation and each NGO representative received a set of educational material.

### **15.11 E-Course on Environmental Education for Teachers in Service**

CMU is in the process of designing and developing a Certificate Course in Environmental Education through eLearning, for intermediate level in-service teachers of Abu Dhabi. The project is proposed and supported by the Environment Agency ñ Abu Dhabi (EAD). As part of the project implementation, the technology provider for developing the Learning Management System (LMS) has been identified. The technology provider will set up Moodle (LMS) and provide technical assistance to the learners during the implementation of the pilot phase of the course. The discussion on modules, objectives and contents has been completed. Module development and course implementation will be completed next year.

### **15.12 Samsung Activity-based Environment Education Kits**

CMU team members facilitated the development of four theme-based, stand-alone kits for Samsung Engineering Ltd, based in South Korea. The kits have been developed to support Samsung volunteers or teachers from the schools in their project locations in carrying out an hour-long environmental education session in schools. The kits were based on the dossiers designed by CMU for YES Bank, India.

### **15.13 Sensitising Media on Climate Change and Development in IHR**

CEE Himalaya and The Third Pole (a Delhi based media NGO) jointly initiated working on a project supported by CCD-SDC to sensitise the media on the issue of climate change and development, especially in the Himalayan context. The project seeks to orient them on how effective reporting and case studies in the media on climate change and sustainable development for mountain communities can positively impact people in generating a better response towards adapting to the adverse impacts of climate change and rapid environmental degradation.

The Eastern and Western Himalayan media personnel would be oriented through workshops proposed to be held at Shimla (Himachal Pradesh), Leh/Srinagar (J&K), Gangtok (Sikkim) and Kohima (Nagaland). The workshops would provide participants an opportunity to interact with experts on climate change, communicators, government and media to help them understand the science and social aspects of climate change, existing policy framework and scope for its implementation, and techniques for effective reporting.

## Initiatives for UNDES

### 16.1 Interventions and Presentations

CEE made key interventions and presentations at several forums in India and outside. Some of those by the Director, CEE, Mr. Kartikeya Sarabhai include:

Was invited to the International Conference on Education for Sustainable Development ñ Learning Today for a Sustainable Future organised by the Commission of Russian Federation for UNESCO in Khanty-Mansiysk, Russia, in May 2013. He presented his thoughts on the progress India has made in implementing the Decade. He also shared his thoughts on the steps that need to be taken after the close of the Decade of Education for Sustainable Development (DESD) in 2014.

Along with Ms. Shailaja Ravindranath and Mr. Pramod Sharma, conducted a workshop on *Environmental Education for Biodiversity Conservation ñ Towards Shaping an International Network* in the 7th World Environmental Education Congress held in June 2013 in Marrakesh, Morocco. The workshop helped to get inputs on ways through which international cooperative processes assist in developing and implementing strategies and action plan for biodiversity conservation. The Director also participated in a side event *Preparation for the future of Education for Sustainable Development* organised by the UNESCO, where he highlighted the role of education as a key driver of change for sustainable development.

Was invited by GIZ as a speaker at the *International Conference on Learning for the future ñ The role of education in a post-2015 agenda* in Bonn, Germany in July 2013. He spoke about the role that Education for Sustainable Development (ESD) can play in achieving the post-2015 agenda or sustainable development goals.

Was a speaker for a panel discussion at the 42nd North American Association for Environmental Education (NAAEE) Conference held in Baltimore, USA in October 2013. The discussion was focused on a global look at environmental education and sustainability.

In the nineteenth session of the Conference of Parties of the United Nations Framework Convention on Climate Change (COP 19, UNFCCC) held in Warsaw, Poland in November 2013, spoke about ESD as one of the key drivers of change to address issues related to climate change, in a side event on *Combating Climate Change through Education and Training*, organised by the UN Alliance on Climate Change Education, Training and Public Awareness.

Participated as a concurrent session facilitator in the forum organised by the UNESCO on *Global Citizenship Education: Preparing learners for the challenge of the 21st Century* in Bangkok, Thailand in December 2013.

Was invited by the Environment Agency ñ Abu Dhabi as an expert presenter in an International Forum for *Educating for Sustainability* held in Abu Dhabi in February 2014. He spoke about various ways in which CEE has integrated ESD in the Indian education system. Some examples he mentioned are through eco club activities, linking action projects with curriculum, internships and nature camps.

### 16.2 International Initiatives in ESD

#### The ESD ExpertNet

The GIZ supported ESD ExpertNet is a trans-regional network of experts and leaders from state and non-state institutions that is developing strategies to help enhance the

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implementation of ESD in the participating countries. Among other engagement activities as a part of the ESD ExpertNet, CEE has been involved in the development, adaptation and conduct of a Course for Capacity Building of Multipliers or Teacher Educators for ESD using the Whole School Approach. This approach takes into account that the important factors for success of ESD within the school context are not only curriculum, teaching staff and their lessons, but also the parents and local surroundings, education policies, teaching materials and many other aspects that all play a major role in the success of ESD. In 2013-14, CEE organised a refresher workshop for selected participants from the programmes that were conducted earlier. The refresher programme helped assess the usefulness of the approach, challenges faced and learnings, and ways to further develop the approach and capacities of educators. Seventeen participants attended the programme.

Satish Awate who had participated in the Leadership Training course under this partnership implemented an Innovation Project that was one of the components of the training. The project included development of an approach for biodiversity documentation by schools, documentation protocols, technique for varietal mapping and then applying the approach with schools that are part of the Western Ghats Special Eco-clubs Scheme in Maharashtra. Documentation included recording of locations using GPS and photographs of varieties. Conservation work includes preparation of planting materials, nurseries, grafting, etc. Presentations

were made about this approach and activities at the GIZ ESD National Workshop organised in Delhi in November 2013 and at an ESD workshop organised by the Asia Pacific Cultural Centre for UNESCO at Okayama, Japan. Four posters have also been developed depicting the varietal diversity in the species documented.

### **16.3 Preparation of Discussion Papers for the Negotiation on Sustainable Development Goals (SDGs) by Government of India**

CEE was entrusted by the MoEF&CC to prepare the baseline report and the suggested SDGs as part of the discussion papers to support the India negotiation team in the Open Working Group of the General Assembly of the United Nations. CEE teams worked on the 14 thematic areas identified by MoEF&CC to prepare a report. The report included an India baseline, a review of global efforts, an analysis of SDGs vis a vis the MDGs and suggested SDGs in each of the thematic areas. The thematic areas for which papers were written include Drinking Water and Sanitation, DRR, Climate Change, Health and Population Dynamics, Poverty Eradication, Food Security and Agriculture, Promoting Full Employment and Decent Work for all, Gender, Education, Marine, Oceans and Seas, Ecosystems and Biodiversity, Energy, Desertification and Means of Implementation. CEE was also asked to validate the papers from the respective line ministries. The process of validation is in process and the final report will be submitted to the MoEF&CC shortly. The project was funded by UNDP.



## Material Development and Publications

Children's Media Unit (CMU) is involved in instructional design of materials and programmes for EE and ESD, nationally and internationally. CMU works with all media - print, audio visual, exhibitions and new media. CMU facilitates training and capacity building of teachers and ESD professionals.

### 17.1 Material Development for the Thrust Area: Education for Children (Instructional Design)

#### 17.1.1 International Collaborations

CMU has been working closely with Environment Agency Abu Dhabi (EAD) as a key collaborating partner in the Sustainable Schools Initiative (SSI) and Sustainable Campus Initiative of Abu Dhabi. This collaboration includes development of resource material and capacity building.

CMU is also part of the ESD ExpertNet, a GIZ initiative of which India, Mexico, South Africa and Germany are part.

#### 17.1.2 Resource Material/Publications

During this period, CMU worked on two Resource Books for teachers of Primary and Secondary level, to equip the teachers of Abu Dhabi with a range of pedagogical approaches and methodologies to support EE and ESD.

- i) Towards a Sustainable World: A Resource Book for Primary Teachers: The development, design and layout of this book has been completed.
- ii) Towards a Sustainable World: A Resource Book for Secondary Teachers (Classes 9-12): This is in the layout stage.
- iii) Water Education in the Arab World: A Handbook of Information and Activities:

Since 2003, The Environment Agency ñ Abu Dhabi has been appointed as the major international coordinator for water education in the Arab world by the UNESCO, as a part of their ESD efforts in the Middle East. EAD conceived and designed the Water Education Programme (WEP) to be implemented in the Arab region. As a part of it efforts, EAD had drafted a WEP resource material for teachers to be used as a part of the teaching curriculum in UNESCO's ASPnet schools. The material will be adapted into Arabic. CMU reviewed the WEP resource material developed by EAD for the three levels - Primary, Intermediate and Secondary. Based on the review, the content was revised, augmented with added chapters and information, as well as edited. CMU also completed the design and layout of the book.



#### 17.1.3 Easter Springer Publication

Rajeswari N Gorana, Programme Coordinator CMU, and Preeti R Kanaujia, Programme Coordinator CEE North are co-editors for a publication for Easter Springer, under its series Schooling for Sustainable Development. This publication focuses on South Asia and attempts to provide a close insight into how

EE/ESD is being integrated in the South Asia region, and how it is being practised by educators and in institutions.

The book essentially presents experiences and initiatives of each country in reorienting education (formal and non-formal) as Education for Sustainable Development (ESD). The book would capture efforts by individuals, NGOs, UN organisations; educational policies, government initiatives, programmes and projects that are facilitating ESD work.

The book is now in the manuscript phase.

## **17.2 National Initiatives**

### **17.2.1 TVE Video Resource Centre (VRC)**

CEE has been a Video Resource Centre (VRC) of the Television Trust for the Environment since 1997. As a VRC, CEE makes local language versions of international environment films; produces instructional material for facilitating effective use of films as an educational resource; produces print materials to support and promote film distribution - film catalogues, newsletters, periodical publications, etc.; promotes the dissemination of films on environment, development and social justice issues through various channels - print, internet, workshops, film festivals and others; produces own films and publicises films produced by others.

CMU continued its function as a Video Resource Centre. Various environment and sustainable development related films were borrowed both by programme groups within CEE, and by external institutions for use in training and public screenings. Schools, colleges, and NGOs continue to use this resource for their needs.

### **17.3 CEE Himalaya: Short Video Documentaries English & Hindi under UNDP Programme**

**Herbal Healers of Himalaya:** This 16 minute documentary was shot at Johar Valley of Musiari and focuses primarily on the traditional healthcare system and herbal medicine of Uttarakhand. The film includes interviews with several herbal healers, MAP cultivators/users, local community members and Forest Department officials, and captures different aspects of the role of MAPs in local traditions, customs and lifestyles, while highlighting the plight of naturally growing MAPs in the wild.



Awareness on MAPs Village Khalla, Chamoli

**Ukha Devi ñ Who after Her?:** Ms. Ukha Devi Laspal, a Bhotiya tribe woman of Johar Valley, Uttarakhand, who has a rich knowledge of the uses of medicinal plants for treating various ailments, has been treating people of her and adjoining areas ñ especially the rural and poor people - keeping them healthy since more than 50 years. With her indigenous traditional knowledge (ITK) used in the service of people, she has earned much respect and the status of a goddess. This short film of seven minutes captures the knowledge and

healthcare services rendered by Ukha Devi in a far flung remote area, in order to appreciate and popularise it. It raises concerns about the loss of such indigenous traditional knowledge of medicinal plants after people like Ukha Devi are no more.

**International Mountain Day 2013:** The film captures all the events celebrated by RCE Srinagar with ICIMOD on International Mountain Day 2013 with 250 students and teachers in Uttarakhand, India.

**World Wetlands Day 2013** The film covers the celebrations in DAV College, Dehradun on the event of Wetlands Day on 2nd March 2013. The theme was 'Take Care of Water' in which 254 students from 15 schools participated.

**International Biodiversity Day 2013:** International Day for Biological Diversity 2013 celebrations by CEE Himalaya with RCE Srinagar and Channel Mountain Communication in the State of Uttarakhand are captured in the film. The film also captures Medicinal Plants Conservation Areas and Medicinal Plants Development Areas set up under the project and raises concerns about the rapid loss of biodiversity adversely affecting the health care of 80% of the rural and poor people of India.

**International Women's day 2013:** Conservation and Cultivation of Medicinal and Aromatic Plants in Uttarakhand, India, offers great potential for women empowerment, giving them gainful employment and financial strength. Through this GoI-UNDP-GEF supported project, CEE Himalaya has been trying to capacity build mountain women folk in conserving the environment and ensuring good health by promoting local health traditions as depicted in the film.



Creating awareness on MAPs amongst women, Uttarakhand

**Vaidya:** This documentary is based on the practices of two traditional herbal healers named Vaidya Shri Ram Krishna Pokhriyal and Vaidya Shri Ganga Singh Bohra. Ram Krishna Pokhriyal belongs to Pauri Garhwal and Ganga Singh Bohra is from Sukhi Dang, Tanakpur, Champawat. The vaidyas discuss some common medicinal plants and their uses in the film. This documentary also covers an interview of one of the local NGOs (Bethany Jevan Dhara), their methods of cultivation of MAPs, methods of preparing herbal medicines, and how they treat patients under their herbal clinic and hospital.



Demonstrating cultivation of MAPs

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**MPCA/ MPDA:** The film covers detailed information about Medicinal and Aromatic Plants, Medicinal Plants Conservation Areas, Medicinal Plants Development Areas, Globally Significant Medicinal Plants, Flagship GSMPs and nurseries; information on People's Biodiversity Register, Biodiversity Management Committees, Village Botanists and all the organisations associated with the MAPs sector.



Exposure to MPCA-MPDA sites, Uttarakhand

**Jingle film on MAPs:** This documentary shows the varieties of MAPs MPCA and MPDA sites and nearby villages, conservation and

cultivation of MAPs, the biodiversity rich areas of the Ausadhiprast State of Uttarakhand through jingle songs and narration.

**Radio Episode - Series of 13 Episodes** covers introduction of MAPs, role of agencies, traditional herbal care system, traditional herbal healers, conservation and sustainable use, cultivation, value addition of products, market, schemes of government, and future of MAPs.

**Links to Documentary films by CEE Himalaya**

- i) Herbal Healers of Himalaya  
<http://youtu.be/tgExbxjU3n0>
- ii) Ukha Devi Who after Her?  
<http://youtu.be/tgExbxjU3n0>
- iii) International Mountain Day  
<http://youtu.be/VLhkNv-CJNQ>
- iv) World Wetlands Day  
[https://www.youtube.com/watch?v=exa-hnX\\_MvM](https://www.youtube.com/watch?v=exa-hnX_MvM)
- v) International Women's Day  
<http://youtu.be/RrFMvMygxfS>

## Institutional Development and Support

### 18.1 Human and Institutional Development

The HID efforts at CEE continued. With a new group of eleven Programme Officers joining the Centre, a 10 day Orientation Programme was organised for them in the month of March-April 2014.

During the year, five staff members were sponsored for short duration in-service training programmes/workshops in the areas of Accounts, Finance, use of Excel, Service Tax, etc. Besides these, a two day in-house training programme was organised for staff members of the Administrative and Accounts teams from the various CEE Offices.

Several senior staff from other groups contributed to the HID effort by participating in the recruitment and review processes.

Though efforts were made to recruit a Programme Officer for the HID Facilitation Cell, no suitable candidate was found, and so the recruitment effort continues.

Due to limited resources, a meeting of the CEE Management Committee could not be conducted during this period.

### 18.2 Centre for Environment Education - Information Service Centre (CEE-ISC)

CEE - Information Service Centre (CEE-ISC) has been established with a view to select, collect, organise, preserve, retrieve and disseminate information on Environmental Education (EE), Education for Sustainable Development (ESD) and related areas, to cater to the information needs of environmental educators, decision makers, researchers and the general public. The collection includes books, periodicals, reports, maps, charts, films, audio/video cassettes and CDs.

CEE ISC is a part of Ahmedabad Library Network (ADINET) through which it has access to other libraries in Ahmedabad.

#### 18.2.1 Collection

ISC has a rich collection of print documents. This collection covers a diverse range of subjects ranging from Agriculture to Zoology. It has a very good collection of Reference Books, a special collection of Children's Books, Textbooks, Hindi and Gujarati Books, and Atlases and Maps. ISC also has a collection of CEE publications.

During the financial year 2013-14, ISC has acquired 409 books, and 75 periodicals and journals, of which six are online subscriptions.

The following services are offered by ISC ñ Lending, Reference, Referral, Selective Dissemination of Information (SDI) and Computerised Catalogue (OPAC)

#### 18.2.2 Book Alert Service

ISC offers a Book Alert Service highlighting Environmentally Significant Days. ISC also displays books related to that particular theme.

#### 18.2.3 Systematising ISC

In the year 2013-14, ISC had taken up the task of systematising the Regional/State office collection. Collections of Sundarvan Nature Discovery Centre and CEE Central Office, located in Pune have been systematised. Sundarvan Nature Discovery Centre has a collection of 2300 books. The initiative would help improve resource sharing among the main office and Central Regional Cells as part of the mandate for CEE ENVIS ISC. The collection at the Pune office which numbers around 5000 books, has been catalogued, classified and the items put to circulation.



### 19.1 Earth Day ñ April 22

**CEE Himalaya:** Earth Day 2013 was celebrated by CEE Himalaya in association with the Earth Day Network, Uttarakhand, at Dehradun on April 22, 2013. *Herbal Healers of Himalaya*, a film made by CEE for Uttarakhand State Medicinal Plants Board under its GoI-UNDP-GEF supported project, was screened on the occasion. Panel discussions were conducted with panelists drawn from various walks of life and from different organisations, like academicians, environmentalist activists, media people (print and electronic), youth, human rights activists, singers, NGO staff, and others. Poems highlighting the beauty of nature and the environment were recited by some of the panel members. Forty people participated in the event. Before concluding the programme, all the participants took a pledge to protect Mother Earth and Save the Environment and Nature.

### 19.2 International Day for Biological Diversity (IBD) ñ May 22

**CEE Himalaya:** IBD was celebrated on May 22 at several places across the Indian Himalayan Region: Kashmir, Uttarakhand, Sikkim, Assam and Manipur, with the involvement of school children, teachers, local NGOs and community members. Children planted saplings under the eGreen Wave programme coordinated by CEE for the National Biodiversity Authority of India along with several other partner organisations. The programme also included talks and sharing of thoughts by subject experts on mountains and sustainable development issues, particularly the conservation and sustainable use of Medicinal and Aromatic Plants, followed by

a number of activities for students to help them understand the rich biodiversity of the Indian Himalayan Region.

### 19.3 World Environment Day (WED) ñ June 5

**CEE Himalaya:** World Environment Day (WED) 2013 was celebrated on June 5 & 6, 2013 at West Point School, Gangtok, Sikkim; it was also celebrated at two locations in Hamirpur district, Himachal Pradesh in collaboration with two Paryavaran Mitra Schools: Him Academy Public School (HAPS) and Government Boys' Senior Secondary School (GBSSS), Hamirpur. Along with organizing a rally in the area surrounding the schools, an exposure visit to the jungle, competitions like painting, poetry writing, slogan writing, skit and an environmental quiz on the theme of WED 2013 - iTHINK-EAT-SAVE were conducted. Prizes were awarded to the winners of all the competitions. In Hamirpur, students also visited the Institute of Biotechnology and Environmental Science, Hamirpur, where they interacted with scientists and discussed various environment related issues. In Gangtok, two video films titled *What Can We Do about Food Wastage?* and *Ideas de Reciclaje* were screened for the participants. In all, around 270 students participated in the celebrations.

**CEE North:** On the invitation from the Panchayat leader of Hasanpur Khewali village in Lucknow district, CEE North and the District Science Club joined hands to organise a WED event for the Children's Forest Programme schools and the local community. The programme began with a plantation by the chief guest, the Basic Shiksha Adhikari, Lucknow. Students of the host school, Purva Madhyamic Vidyalaya of

Hasanpur Khewali presented a welcome song. Around 200 participants took part in the programme including school children and community members. Shiksha Mitras, Block Resource Coordinators (BRCs), Nyaya Panchayat Resource Coordinators (NPRCs), teachers, the Additional BSA of the Block ñ in all numbering about 70 - also participated in the programme. Students participated in painting competitions on the theme of WED 2013. A puppet show was organised for the community. The programme concluded with a consensus on the action the village will take up for the next year related to environment conservation.

**CEE North:** CEE North and the Regional Science City (RSC) joined hands once again to observe World Environment Day 2013, with a **Paryavaran Mela**. The programme witnessed the participation of more than 500 visitors including children and parents, and a group of 52 children from non formal schools of partner institution *Vigyan Foundation*. The *Mela* began with a biodiversity hunt with more than 200 students taking part. Students then took part in card making competition in junior and senior categories with the message of environment protection. The 12 Mela activities



Briefing about event, CFP school 23 Oct 2013

were organised in the categories of Games, Creative and Knowledge Corners and included Snakes and Ladders, Odd One Out, Bird Identification, Pin the tail, Heavy Weight Champions, *Bujho to jaane*, Throw the ring, Pottery, Body painting, Message corner and Act Now exhibition. A puppet show and a play were also organised by the CFP school children for the visitors with an appeal of 'Plant Trees - Save Trees'. Winners of the hunt and the competition received prizes from the chief guest.

**CEE Goa:** CEE Goa State Office, jointly with the Goa State Pollution Control Board (GSPCB), celebrated World Environment Day 2013 with the theme 'Think, Eat, Save'. Various events such as poster competition for students, quiz for industry representatives, exhibition of 'best from waste' management practices and a panel discussion on Think-Eat-Save were organised. With the support of Goa State Pollution Control Board, CEE Goa developed a 12 minute documentary on the theme of food wastage, with special reference to practices in Goa. The documentary was released at the meeting of the Goa Environmental Protection Council by Hon. Governor of Goa in the presence of the Chief Minister and Minister for Forests and Environment, Government of Goa. The state government has distributed the documentary to all the students along with a tablet.

### 19.4 Green Consumer Day ñ September 28

**CEE North:** An environment awareness programme was organised on the occasion of Green Consumer Day for schools in September 2013, and was held at one of the CFP schools in Lucknow. The objective of the programme was to educate and promote among the students green habits of consumption so that

they can reduce their foot print and increase their hand print. Around 200 students from 15-20 schools of Lucknow participated in the programme in which a quiz competition was held. Officials from the Forest and Education departments addressed and motivated the students on the occasion.

### **19.5 International Day for Disaster Risk Reduction (IDDRR) ñ October 13**

**CEE Himalaya:** To commemorate the IDDRR 2013 in the wake of the recent disaster, CEE Himalaya organised a day long programme with the theme *Living with Disability and Disasters*, for the students and teachers of 16 schools from Uttarkashi on the October 12 at the Government Girls' Inter College. About 456 students and 36 teachers participated in the event where people from different disaster related sections like Red Cross, Fire Services, Medical Department, Police and NGOS also attended. Each group of experts demonstrated emergency procedures from their field: tackling fire by the Fire Brigade, quick response by Red Cross, use of medical emergency kit by the Medical Department,



A mock drill during IDDR Celebration, Uttarakhand

and so on. The event proved to be very informative and useful for the students.

### **19.6 International Mountain Day (IMD) ñ December 11**

**CEE Himalaya:** celebrated IMD 2013 with students and teachers in Uttarkashi, a small Himalayan disaster prone town, on December 11. More than 500 students and 32 teachers from 17 schools along with 46 other participants gathered at a local school (Government Girls' Inter College, Uttarkashi) to celebrate the day. Representatives from development agencies like Azim Premji Foundation, Shri Bhubneshwari Mahila Ashram, Red Cross Society and Jindal South West Foundation were also invited to share their rich experience. The programme included talks and sharing of thoughts by local experts on mountain issues followed by a number of activities for students to help them understand the idea of 'Mountains as a key to a sustainable future'. Some of the activities in which the students participated enthusiastically were ñ Story telling, Slogan writing, Group discussion, Extempore speech, Chart making and Quiz, all structured around the theme of IMD 2013. They participated individually as well as in groups and were felicitated for their innovation and creativity. Winners of the events were felicitated by the CEE Himalaya team.

### **19.7 Celebration of 150th Jayanti of Swami Vivekananda ñ January 12, 2014**

**CEE Himalaya:** This celebration was organised with support from the JSW Foundation on January 12, 2014 at Saraswati Shishu Mandir, Tiloth, Jyotipuram, Uttarkashi, Uttarakhand, in collaboration

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with the Akhil Bhartiya Vidhyarti Parishad (ABVP). CEE Himalaya used the occasion to orient the more than 131 participants, including teachers and students, on ways and methods of prevention and safety during disasters.

### **19.8 World Wetlands Day ñ February 2**

**CEE North** organised a programme on the occasion of World Wetlands Day in February 2014 at Nawabganj Bird Sanctuary, Unnao. About 80 students and teachers from eight schools participated in the event. The programme started with a presentation on wetlands which included types of wetland and various flora and fauna found in wetlands. Students were taken on a trail in the sanctuary, followed by a quiz based on the trail.

### **19.9 International Womenís Day (IWD) ñ March 8**

**CEE Himalaya:** International Womenís Day (IWD) was organised on March 8, 2014 by CEE Himalaya under the GoI-UNDPñGEF project iMainstreaming the Conservation and Sustainable Use of Medicinal Plants Diversity in Three Indian States.î It was held in

collaboration with the Institute for Development Support (IDS) at the Government Primary School, Laga Pokhri, Chakrata, Uttarakhand. The event saw a turnout of around 200 people from different walks of life. The focus of the programme was the theme for the year *A promise is a promise: Time for action to end violence against women* which was clubbed with another equally important topic - the role of mountain women in the conservation of biodiversity and natural resources, especially the medicinal plants.

### **19.10 World Forestry Day ñ March 21**

**CEE North:** In joint collaboration with the Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project (UPPFMPAP), Lucknow, CEE North observed World Forestry Day by organising the *Paryavaran Mitra Puraskar* felicitation event for winners from Uttar Pradesh. More than 500 participants attended the ceremony. The key speakers on the occasion addressed the gathering on the need to make efforts to increase forest cover. Over 15 schools, teachers and students were felicitated during the event by the Principal Secretary, Environment and Forests, UP Government.



Wetlands Day Celebration, Mandi



### 20.1 Information and Facilitation Centre (IFC), CEE Ahmedabad

The Information and Facilitation Centre (IFC) was set up in January 2008 to serve as an interface with the people of Ahmedabad at large, and with visitors at CEE and its sister organisations, providing an opportunity to orient them to Environment and Sustainable Development, including information on various schemes and programmes of the Ministry of Environment and Forests, Government of India.

The IFC has a menu of programmes and activities which include orientation and hands-on experiential learning opportunities for various age groups through three-hour to week-long packages. The IFC also has a month-long summer programme for children, culminating on June 5 which is the World Environment Day. Outdoor activities include nature trails on campus, bird watching and field trips to natural sites. The IFC has been actively involved in developing a campaign around the theme of 'Safe Festivals'. It also promotes eco-friendly products, displays environmental publications and provides



Presentations by students at the summer programme

information about the latest publications. A database on participants of various programmes of and visitors to the IFC is prepared and updated on a regular basis. It has over 3700 addresses listed to whom event information and other updates on special programmes at CEE are sent.

#### 20.1.1 Orientation to Environmental Education Packages

This was offered to a varied group of visitors to CEE. Generally planned as sessions of three hours, these include a Nature Trail, Environment Education activities and games, and a film. Special components get added to this main package based on the profile of the group taking the package.

**Visiting Groups:** The IFC facilitated visits from many schools of Ahmedabad. The students' groups were varied as they included very young children from pre-primary and also those from senior secondary classes. The IFC also had the opportunity to work with a group of visually challenged students from Blind People Association (BPA), a prominent organisation in Ahmedabad.

Besides offering the Orientation package, the IFC facilitated field visits to Nature Education sites developed by CEE, namely, the Manekbaug Plot, *Sundervan* and others. The IFC also facilitated linkages with other programmes within CEE such as connecting colleges to the SAYEN network in Ahmedabad.

IFC also plays a major role in helping out with the media coverage to many of the Nehru Foundation for Development (NFD) programmes. These include over 15 events organised by CEE, VIKSAT and Vikram A Sarabhai Community Science Centre (VASCSC).



The number of groups who have undergone the Orientation Programme facilitated by IFC during the reporting period:

Group	Number of institutions	Number of participants
Schools	12	850
University students and trainees	8	250
Groups supported by NGOs	10	300
Summer Programme students	1	125
Walk in Visitors		500
<b>Total</b>		<b>2025</b>

### 20.1.2 Birthday Package

IFC organised two birthday celebrations for children at CEE's 14 acre Green Campus. The package includes a nature trail, bird watching, film screening, quiz and lots of games that focus on the environment. The birthday girl or



Sapling planted by birthday boy - celebrating green birthday

boy plants a sapling and has her/his name tag on it. Friends were given educational products developed by CEE as return gifts.

### 20.1.3 Safe Festival Campaign

**Diwali Safe Festival Campaign:** Posters were put up at various places highlighting safe festival celebration. Mailers were sent to people to make them aware of health hazards and pollution created due to crackers

**Holi:** This campaign was conducted to propagate the use of natural colours and create awareness about the harmful impacts of the synthetic colours sold in the market. Natural and herbal colours were sold from different outlets located at *Sundarvan*, VASCSC, Darpana Academy for Performing Arts and the IFC. The colours were procured from AURA Herbal Wear, an organic products enterprise in Ahmedabad. Posters were put up at different locations with messages related to natural colours. Pamphlets with tips on making homemade colours were distributed. The making of natural colours at home was also demonstrated at schools.

**Makar Sankranti Festival Campaign - Save our Birds:** Mailers were sent to friends of CEE and other colleagues regarding the need to celebrate the kite flying festival safely so as to avoid hurting birds. Helpline numbers were provided so that people could contact in case they find some injured bird.

### 20.1.4 Summer Programme for Children

In May 2013, IFC conducted a special vacation programme for 125 children ranging from 6-13 years of age. The month long programme was divided into four weeks, each coordinated by a subject specialist from CEE. Themes included Food and Biodiversity, How safe is our food, Pick right, Think-Eat-Save.

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The programme included field trips, movie screenings, theoretical and practical sessions, activities and games. Participants were given certificates at the end of the month long programme. The children set up an exhibition of the products and materials they developed during the summer programme and conducted puppet shows on World Environment Day.

Products like paper bags, candle stands, lampshades and traditional diyas were exhibited and sold at the IFC. These were procured from organisations like UTTHAN and Blind People Association (BPA), made by mentally challenged children and blind people respectively.

#### **20.1.5 Information Counter for MoEF&CC**

The Ministry of Environment and Forests has as one of its important activities, the collection and dissemination of environmental information and creation of environmental awareness among all sectors of the country's population. While the ENVIS centres set up by the MoEF&CC carry out this function at a national level, a lot of relevant information on the Ministry's programmes are being made available through the IFC counter at MoEF&CC.

#### **20.1.6 IFC Memberships**

IFC offers membership to the citizens of Ahmedabad that will entitle them to participate in various activities; get invited to popular lectures and events; and access CEE's facilities like the library.

### **20.2 Participation**

#### **Conferences/Seminars/Workshops Attended/Conducted by CEE Members**

#### **Individual Participation**

##### **Mr. Satish Awate**

- Along with Mr. Dhondiba Kumbhar, an Eco-Club in charge teacher, presented a case story based on the process and results of the participatory study and conservation of genetic diversity of mango and three other fruit trees from the Western Ghats in Maharashtra at the *Asia-Pacific Expert Workshop on Formal Education-Non Formal Education Partnership for Education for Sustainable Development (ESD)*, held in Okayama, Japan during October 2-4, 2013. The workshop was organised by Asia Pacific Cultural Centre for UNESCO (ACCU). This case story was subsequently published in a book by ACCU.

##### **Mr. Sujeetkumar M. Dongre**

- Has been nominated as Member, Task Force, Integrated Coastal Zone Management, Government of Goa.

##### **Dr. Abdhesh Kumar Gangwar**

- Attended the Annual Action Review (AAR) meet of the PSSRI-GSF Project organised by NRMCI (India) at *Lok Jagriti Kendra*, Madhupur, Deoghar, Jharkhand, during July 9-12, 2013, to discuss the physical and financial progress of the Government Action Plan under the PSSRI programme, which is being implemented by CEE NE in Behali Block of Sonitpur District in Assam.
- Attended *Multi-stakeholder Action for Addressing Nutrition in Emergencies in India* on July 25, 2013 at NIHFWS, New Delhi, organised by Sphere India and Welthungerhilfe.

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- Presented a paper on 'Livelihood security in Himalayas through conservation and cultivation of medicinal and aromatic plants' at the International Conference on *Pathways for Climate Resilient Livelihoods in Himalayan River Basins* in Hotel Clarion, New Delhi, organised by IRMA and other partners on August 1-2, 2013.
  - Attended the 4th Global Meeting of Members of the Mountain Partnership *International Partnership for the Sustainable Development of the Mountain Regions*, at Erzurum, Turkey during Sept. 17-20, 2013.
  - Attended the 7th Asia Pacific RCE Meeting at Kitakyushu, Japan, organised by UNU-IAS and hosted by RCE Kitakyushu during October 20-22, 2013.
  - Attended the 'After Action Review Meeting' of the PSSRI Programme organised by NRMCI India Pvt. Ltd. on October 30-31, 2013 at Patna.
  - Attended *Education for Sustainable Development (ESD) International Forum 2013* organised by Tongyeong Education Foundation for Sustainable Development and the Steering Committee Meeting of the 'Sejahn Centre of the RCE Tongyeong, on November 15-16, 2013 at Tongyeong, Republic of Korea.

**Ms. Rajeswari Gorana**

- Was selected as a winner for the Berlin Change Days Leadership Award for the prototype innovation project proposed as part of the GIZ Leadership course. GIZ, in collaboration with the Berlin Change Days 2013 gave the Award for innovative projects that conceived or brought sustainable change to organisations or parts of society. The winners of The Change

Leadership Award were invited to present their project at the 5th Berlin Change Days 2013 and receive the award. The Berlin Change Days ([www.berlinchangedays.com](http://www.berlinchangedays.com)), founded in 2009, is an international conference that brings together more than hundred organisational and leadership development practitioners to exchange best practices and increase the strength of their global networks.

- Her photo submission on the theme 'Sustainability' was shortlisted by the Sustainability Office of GIZ to be used in the 2013 Sustainability Report. The photograph was taken on a visit to the German Parliament, and was accompanied by a brief write up on what the photo represents and what concrete aspects of sustainability it tried to express.
- Shared experiences of the ESD LT innovation project at the NUN (Norddeutsche Partnerschaft zur Unterstützung der UN-Dekade - North German Partnership in Support of the UN Decade Conference) organised by Engagement Global in Berlin. The objective of the conference was to understand how good practices at the institutional level can contribute to the development and extension of long term practices of ESD at the regional or even international level.
- Was invited to the one-day conference *International Expert Panel: Education for Sustainable Development - moving towards long term structures* in which German initiatives which are part of the National Action Plan for the UN DESD undertaken at the policy level - those addressing whole systems, youth as well as higher education - were presented and commented on by international experts. The conference was

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organised by Engagement Global gGmbH in Feldafing, Munich.

- Was invited to the ESD ExpertNet meeting held in Feldafing, Munich as alumni to share experiences of the ESD Leadership Training.
- Facilitated the process of reviewing and scrutinising 261 proposals received by CEE under the MoEF&CC Other Awareness Scheme, meant for organising Seminars/Symposia/Workshops/Conferences. Of the total received, 111 proposals were reviewed and forwarded to the Ministry.

**Ms. Madhavi Joshi**

- Was invited as Jury Member at CEPT University for their B.Plan student thesis jury, on the theme of solid waste management and sanitation.
- Participated in the Expert Committee set up by the Gujarat Pollution Control Board to commission a study on Plaster of Paris idols being used during festivals and their impact on water bodies.
- Was invited by the UNEP to represent the youth perspective in the review of the South Asia Environment Outlook publication and the Post Rio +20 *South Asia Development Agenda Consultation Workshop* in Kathmandu, Nepal.

**Preeti R. Kanaujia**

- Represented CEE in governing body meetings of Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project (UP-PFMPAP) held in Lucknow at periodic intervals.
- Along with Mr. Neeraj Pal, jointly conducted a session on *Concepts of Ecology,*

*Components of Ecology, Ecological Imbalance and Ecological Rights* during the State level consultation workshop on Youth Network on Ecological Rights - organised by Participatory Action for Community Empowerment (PACE) with support from other agencies and Terre des hommes Germany at Lucknow on May 22, 2013.

- Contributed an article for the 37th issue of the international magazine *Sangsaeng* published by Asia-Pacific Centre of Education for International Understanding (APCEIU). The article is covered under Best Practices section titled as *eHands on Handprint for Environmental Sustainability*.
- Was speaker in the State level *Workshop on E-Waste Management - Challenges, Prospects and Strategies* in September 2013 organised by PHD Chambers of Commerce.
- Along with Mr. Sanjay Tiwari, has been representing CEE as NGO member in the governing body of the Project Management Unit for the JICA assisted Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project (UP-PFMPAP).

**Mr. Amar Nath**

- Successfully completed the eLearning Course on *Cities and Climate Change Leadership* conducted by the World Bank Institute, in Oct-Nov 2013.
- Conducted a session on *Climate Change and Transportation* for the students of Liberal Arts, Symbiosis University, Pune.
- Conducted a session on *Documentation of Environment Projects* for the youth interns of TERI University, at Pune.

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- Conducted a session on *Safety aspects for non-motorized modes of transport* and shared the outcomes of eCycle Safe school project at Pune, for the M Arch students of CEPT University under the Street for People Course.
  - Conducted a session on *Sustainable Urban Transport* and the evaluation of projects undertaken by the students of BN College of Architecture as part of their design studio work on participatory street design.
  - Conducted a session on *Sustainable Urban Transport* and a mind mapping exercise for urban transport for the students of POP College of Architecture under Streets for People Course.
  - Participated in the deliberative democracy workshop organised in Pune in collaboration with the Curtin University and BN College of Architecture, Pune.
  - Participated in the Urban Mobility Conference, India (UMI) 2013, in Delhi, organised by the MoUD.

**Ms. G. Padma**

- Conducted a three hour session for the B Com and BCA students of Dayapuram Women's College, Kozhikode, on Environmental Management and Sustainable Development. This was part of a series of sessions organised by the college to provide exposure to the students on various issues and topics related to the society around them.
- Conducted a half day session on Biodiversity Conservation for the second year students of Government Engineering College, Kannur. The students had formed a Green Team and wanted to do some

projects related to the environment. The Green Team has subsequently undertaken various activities like plantation of saplings in the campus, preparation of mini biodiversity registers of the campus (trees, medicinal plants, etc.) and awareness sessions for other students on the need for environmental conservation.

**Ms. Mamata Pandya**

- Was awarded a Fulbright-Nehru Environmental Leadership Programme Fellowship, under which she spent three months in the United States as a visiting scholar. She was hosted by the North American Association for Environmental Education (NAAEE) in Washington DC. During her stay Mamata also participated in the 42nd Annual Conference of the NAAEE in Baltimore, where she shared CEE's work in EE with a large international audience, through a Roundtable session, discussions and interactions.
- Was invited to be a member of the Core Advisory Committee for the development of the Environmental Studies Textbooks for classes 3, 4 and 5 of the Rajasthan State Textbook Development Board. The process was facilitated by the State Institute for Educational Research and Training (SIERT). Textbooks for class 3 and 5 were developed and prepared for dissemination for the academic year 2013. The textbook for class 4 would be ready for dissemination in the academic year 2014.
- Along with Ms. Rajeswari Gorana, was invited to the two National Workshops organised as part of the ESD ExpertNet and ESD programme activities of GIZ in May and December 2013, in Delhi.



## CEE Governing Council

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**Shri T.K. Balappan**

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## **Standing Committee**

### **Chairman**

Shri Kartikeya V. Sarabhai  
Director  
CEE

### **Secretary MoEF&CC or his/her nominee**

Shri B.M.S. Rathore, IFS  
Joint Secretary (EE & Media)  
Government of India  
Ministry of Environment, Forests & Climate Change

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Shri T.K. Balappan  
Chief Administrative Officer(S&L)  
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## **Finance Committee**

### **Chairman**

Shri Kartikeya V. Sarabhai  
Director  
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### **The Financial Advisor of the MoEF&CC, GoI or his/her nominee**

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### **Two representatives of the Governing Council to be nominated by the Chairman, Governing Council**

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### **CEE Thrust Areas**

1. Education for Children
2. EE in Higher Education
3. Education for Youth
4. Communicating Environment through the Media
5. Experiencing Nature
6. EE through Interpretation
7. Knowledge Management for Sustainable Development
8. Industry Initiatives
9. Sustainable Rural Development
10. Water and Sanitation
11. Sustainable Urban Development
12. Waste Management
13. EE for Fragile Areas
14. Education in Biodiversity Conservation
15. Disaster Preparedness and Rehabilitation
16. Training, Networking and Capacity Building
17. Facilitating NGO and Community Initiatives
18. Initiatives for the UN Decade of Education for Sustainable Development
19. Research in EE and ESD
20. Collaboration and partnership at the international level in EE & ESD

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## CEE Websites

About CEE	<a href="http://www.ceeindia.org">www.ceeindia.org</a>
A platform for discussion on developmental issues of the city	<a href="http://www.amdavadma.org">www.amdavadma.org</a>
Hand Print: Action towards sustainability	<a href="http://www.handsforchange.org">www.handsforchange.org</a>
For the UN DESD	<a href="http://www.desd.org">www.desd.org</a>
For Youth	<a href="http://www.sayen.org">www.sayen.org</a>
South and South East Asia Network for EE	<a href="http://www.saseanee.org">www.saseanee.org</a>
A nature discovery centre	<a href="http://www.sundarvan.org">www.sundarvan.org</a>
About tigers	<a href="http://www.tigerindia.org">www.tigerindia.org</a>
For educators and ENVIS Centre on EE	<a href="http://www.greenteacher.org">www.greenteacher.org</a>
For EE Materials	<a href="http://www.edutechindia.org">www.edutechindia.org</a>
UNDP GEF Small Grants Programmes	<a href="http://www.sgpindia.org">www.sgpindia.org</a>
Biomedical Waste Management	<a href="http://www.bmwmindia.org">www.bmwmindia.org</a>
For Cleaner Production	<a href="http://www.cleanerproduction.org">www.cleanerproduction.org</a>
Education and Communication for Mountain Ecosystems	<a href="http://www.cee-himalaya.org">www.cee-himalaya.org</a>
Video Resource Centre	<a href="http://www.cee-vrc.org">www.cee-vrc.org</a>
Programme and Activities of CEE Australia	<a href="http://www.cee-australia.org">www.cee-australia.org</a>
Ethical Framework for a Sustainable World – International Conference	<a href="http://www.earthcharterplus10.org">www.earthcharterplus10.org</a>
Paryavaran Mitra Programme	<a href="http://www.paryavaranmitra.in">www.paryavaranmitra.in</a>