



Annual Report

2014 - 2015

CEE

Centre for Environment Education

Nehru Foundation for Development, Ahmedabad

Supported by the Ministry of Environment, Forest and Climate Change
Government of India

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Introduction

The World Conference on Education for Sustainable Development at Nagoya, Japan marked the end of The United Nations Decade of Education for Sustainable Development (UNDESD, 2005-14). Through the 10 years, CEE played a very important role being the nodal agency for India as well as being represented on several UNESCO Committees connected with the decade. CEE participated in the Nagoya Conference and showcased several of its programmes as well as developed an exhibit showcasing work done in India. The Handprint project was shortlisted as one of the successful case studies from around the world. The Global Citizenship for Sustainability (GCS) was also showcased as an example of Global Citizenship Education.

The year saw CEE's work with the Ministry of Environment, Forest and Climate Change expand into new areas. An important role which CEE played was in developing inputs for India's negotiations on the Sustainable Development Goals (SDGs) being discussed by the Open Working Group at UN.

Some of the highlights of the year were:

School Education

- The international programme - GCS Marine Project 1600 - will have, for the present academic year, CEE mentors facilitating on-site, place and project-based learnings directly with teachers and students in their school. Online webinar events for schools to interact and students workshops were organized towards this, and the GCS Marine Project 1600 booklet was developed to outline the project philosophy, vision, concept and methodology.
- The NGC programme was revived in Uttar Pradesh after nearly 8 years, while over 8500 NGC schools from 38 districts of Bihar became a part of this National initiative. In Madhya Pradesh, the programme presently covers over 1250 schools, spread across 50 districts.
- The book Green Stories was a compilation of 100 eco-club stories, converted into case studies. Schools involved in NGC and NEAC programmes in North East India were featured for their exemplary work in conducting Handprint activities.
- The Eco Schools Programme - a global sustainable schools programme being implemented in about 60 countries - was formally launched in India during the year. The programme follows a 7 step methodology, and is being adopted for the primary level (classes 1-5) in India.
- The Earthian Paryavaran Mitra Sustainability Education Initiative was launched on the International Day for Biological Diversity in 2014. The campaign, a collaborative effort between CEE and Wipro Foundation, engaged students of Class 5-8 in various activities, and focused at inculcating a sense of appreciation in them about the various life forms.
- The Paryavaran Saathi, an online communication platform focused at resolving the queries of educators through a toll free number, was launched during the year. Available in English, Hindi, Gujarati and Marathi, the service enables the educators to effectively transact EE/ESD in schools.

- The environment action plan implementation and environmental awareness activities were initiated in Lucknow district under the Children s Forest Programme (CFP), while CEE, in partnership with Petroleum Research Conservation Association (PCRA), implemented a National Level Painting and Essay Competition on the theme of Energy Conservation, all over the country. Announced in October 2014, the competitions were held in 13 languages, and over a period of two months.

Education for Youth

- The Yuva Paryavaran Leader programme, the pilot phase of which was launched in Uttar Pradesh this year, attempts at shortlisting self-motivated students who are keen to find environment solutions. Towards this, the state level Yuva Paryavaran Leader Summit was organized with the objective of providing orientation to the state level cadre of young students who would in turn implement action projects in the area of sustainable development.
- The Children s Media Unit developed Shabab Al Estidama, A Resource for Youth on Sustainability , to support youth in higher education institutions as part of the Sustainable Campus Initiative (SCI) of Environment Agency Abu Dhabi in choosing and implementing Sustainability Action Projects (SAP) in the community.
- Undertaken as part of the UNEP-UNESCO UNertia campaign, the Handprint Challenge 2014, in its first year, required college students across Asia and the Pacific to identify sustainability issues on their campus and propose an action plan

for them to implement in the coming months. 20 teams were selected as challenge finalists after the first round of judgment by an international jury, of which 19 teams eventually completed the challenge. Winners were awarded for their innovative initiatives.

Sustainable Rural Development

- Three post graduates were selected as Gramshilpis during the year, who, in their adopted villages, guides the villagers in matters pertaining to education, career, administrative procedures for villagers to get their lawful entitlements under various schemes and other rights.
- As part of the Environmental Monitoring and Evaluation in Coastal Regulation Zone project in Mundra, third year B. Tech (ICT) students of Dhirubhai Ambani Institute of Information and Communication Technologies, Gandhinagar, Gujarat, were facilitated to conduct a basic socio-economic survey to create a village profile and help them understand the complexity of rural developmental challenges. Furthermore, 4 multi-stakeholder consultations conducted during the year provided insights into the concerns of the community on development in general and industrialization in particular as well as their perception and their dependency on coastal resources.
- Developed under the Virtual Resource Centre and Training Platform for primary teachers in rural areas project, the Gyansetu application is currently being used by over 150 teachers in their classroom teaching. Resource material and innovations in the field of education are

being shared on a periodic basis with the teachers using the VRC application through portal.

Urban Programmes

- The Supporting Urban Sustainability Facilitators Development Programme, conducted as part of the Sustainable Urban Systems collaborative project of SWEDES, CEE, ICLEI and CEPT and also as part of the programme under the UNESCO Chair on Education for Sustainable Development and the Human Habitat, enabled the participants to acquire capacity and competence to facilitate multi-stakeholder processes.
- A Panel Discussion on Participatory Governance and Smart Cities, organized as part of the workshop Dialogue on Strengthening Participatory Governance in India, put forth the potential of ICT in enhancing information availability and participation, about citizenship and agency of the marginalized segments, and weaving all these aspects in a systems view of urban areas, urbanization and Smartness.
- Under the Western Ghats Development Programme of Planning Commission, CEE submitted a three year achievement document to the Environment Department, and conducted activities including seed collection and nursery technique experiments and celebration of Western Ghats fortnight.
- CEE, along with the IBI group, is Consultant for the Pune Municipal Corporation and Pimpri Chinchwad Municipal Corporation's Rainbow BRTS Promotion and Outreach Program, which

aims at providing a framework and list of activities to be carried out and implemented by PCMC for the new Bus Rapid Transit System currently being developed in the city.

- The 4th edition of the Srushti Mitra Awards 2015^f was launched, wherein entries were invited from all over the Maharashtra state in various categories including Environment Bal Sahitya, case study on environment education and women's contribution in environmental conservation.

Drinking Water and Sanitation

- The Daily Handwashing for an Ailment-free Life (DHaAL) project, an initiative at augmenting handwashing facilities in schools in Assam, and develop systems for operation and maintenance of WASH facilities in schools, led to the creation of Group Handwashing Stations (GHS) in over 200 schools in the region. Students and teachers in over 400 schools have also been capacity built on WASH. The positive impact of the programme has prompted Sarva Shiksha Abhiyan in Assam to integrate GHS in their new Mid Day Meal Kitchen design.
- In an effort at accelerating rural sanitation and creating an Open Defecation Free (ODF) environment in Balrampur district of Uttar Pradesh, various activities were conducted during the year, such as orientation and capacity building of Block officials, Community Led Total Sanitation Training Programmes (CLTS), and the use of the traditional folk dance Hudukah and puppetry shows to communicate the importance of practicing WASH activities.

Sustainable Business and Climate Change

- The UNFCCC, UNESCO and CEE in joint partnership, are conducting a research to understand the role of education in mitigation. Case studies where education played a key role in achieving mitigation goals are being identified, and these will be presented at the COP 21 scheduled in Paris in December 2015.
- CEE's Sustainable Business and Climate Change (SBCC) team is developing a compendium on the Earth Care awards awardees, to showcase the efforts on mitigation and adaptation undertaken by different organizations. The team is also cooperating with The Heinrich-Böll-Stiftung in implementing a project on capacity building of Journalists, and documentation of Renewable Energy (RE) and Energy Efficiency (EE) initiatives by Journalists in India.
- Capacity building workshops for media on climate change and development in the Indian Himalayan Region were conducted under the Indian Himalayas Climate Adaptation Programme (IHCAP). These focused on the climate change effects and adaptation in the central and western Himalayas.

Biodiversity Conservation

- 200 schools spread in 15 clusters have been identified under the Information Management Education and Communication for Maharashtra Gene Bank Project, which aims at participatory studies and conservation of various genetic resources of Maharashtra.

- Vedanta, a mining firm in India has commissioned CEE Goa State Office to develop a biodiversity management plan for their mines in Goa. An expert committee has been formed to advise the project, and a consultative workshop was organized to deliberate on the protocols of biodiversity documentation in various habitats in and around 10 kms of the buffer zones of protected areas.
- The mobile exhibition bus Prakriti was launched during the year in Uttar Pradesh. The innovative mobile exhibition showcases the rich biodiversity of Uttar Pradesh, and has till date travelled to 4 districts of the state. The bus has been visited by over 83,000 people.
- Over 200 schools and nearly 40,000 women as part of self-help-groups participated from Tamil Nadu in the Green Wave-India campaign, which was promoted and popularized by CEE on the International Day for Biological Diversity.
- During the course of its journey across India, the Science Express ~ Biodiversity Special (SEBS) went to six stations in Rajasthan, and to Khadki in Pune. CEE as the state resource agency for National Green Corps (NGC) programme, invited schools in Rajasthan to visit the train and participate in the activities, while in Pune, the Hon ble Minister of State (I/C) for Environment, Forest and Climate Change, Shri Prakash Javadekar, addressed the children through a special video message.
- 40 short video films, focusing on the identification and description of medicinal and aromatic plants of Uttarakhand, were developed for training purposes by the CEE team.

Research in ESD

- In February 2015, an MoU was signed among the Central Queensland University in Bundaberg, CEE India and CEE Australia on a range of project proposals spanning teacher training, GCS research and other areas including agricultural research and extension.
- In the special issue of the Journal of Education for Sustainable Development (JESD), coinciding with the events marking the end of the Decade of Education for Sustainable Development (DESD), eminent thinkers and experts on ESD contributed opinion pieces on DESD which focused on reflections on the Decade and the way forward.

Decision and Policy Makers

- CEE developed inputs for India's negotiations on the Sustainable Development Goals (SDGs) being discussed by the Open Working Group at UN. The publication SDGs and India was a compilation and analysis of secondary data on the specified thematic areas based on the Planning Commission documents for the India baseline, documents from concerned ministries, and relevant UN documents. It aimed at eliciting inputs from different stakeholders including concerned ministries and experts while developing critical sustainable development goals.
- The National Mission for a Clean Ganga (NMCG), MoEF&CC, granted CEE the phase two project for extending the education and awareness initiative on the Ganga Dolphin. Titled Educating Schools and Community for sustainable actions for conserving habitat of Ganges

River Dolphin along Ganga River Basin, the programme will see activities being carried out in the dolphin habitat states of Uttar Pradesh, Bihar and West Bengal.

- CEE, along with the consultancy services group Ernst & Young, conducted World Bank supported technical assessments of Swachh Bharat Mission in Rajasthan to find out the effectiveness of the programme.
- For National Environmental Awareness Campaign (NEAC) 2014-15, 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 scrutinize about 10000 proposals received by the RRAs. Proposals shortlisted following the initial scrutiny by the RRA and CEE were recommended to the regional committees.
- CEE while acting as the GEF-CSO (Civil Society Organization) Implementing Partner for the GEF/UNDP Small Grants Programme, entered into the third year of GEF Operational Phase 5 programme.

Disaster Preparedness and Rehabilitation

- Economic rehabilitation and empowerment was the focus of the project Rebuilding Hope (RH), which was CEE's response to the catastrophic floods that struck Jammu & Kashmir. Survival kits benefitting over 3000 people were distributed as part of the relief and rehabilitation programme.

Interpretation

- The year saw a variety in the themes of interpretation projects completed by the

Protected Area Interpretation and Ecotourism (PAIE) group and the Graphic and Exhibit studios at CEE. Highlighting the biodiversity richness of the tiger reserve in Melghat and underscoring the lives of the tribal communities residing in and around the reserve was the interpretation Centre designed and developed at the Melghat Tiger Reserve in Maharashtra. The museum-cum-interpretation centre at the Tropical Forest Research Institute (TFRI) in Jabalpur emphasized on the importance and need for research in tropical forestry, while a report on Project Tiger was compiled, designed and published for the National Tiger Conservation Authority (NTCA).

Experiencing Nature

- CEE continued to play a supportive role to the MoEF&CC in the development of the National Nature Camping Programme. During the year, sanction for CEE's camping proposals, for the states of Uttar

Pradesh, Assam and Goa, were issued. A detailed proposal for a complete national camping manual has been resubmitted.

Eco System based campaigns for Rivers, Mountains and Marine

- Using GIS and remote sensing information, CEE Goa developed a map of eco-sensitive areas along the Goa coast which could be used by the coastal manager in case of oil spills and other ecosystem management activities.

Looking forward

We are adapting to the changing world, and so are our programmes. I would like to thank our teams and all my colleagues, who make this possible. We are determined to build a sustainable society, and will continue with our commitment of protecting the environment through education and implementation of action-oriented programmes.



Nature camp for children at Balaram sanctuary

Education for Children

1

1.1 National Green Corps (NGC)

National Green Corps (NGC), a programme launched by the Ministry of Environment and Forests, Government of India in 2001-2002, aims to create awareness among school children throughout the country on issues related to sustainable development, keeping environmental issues as the 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. NGC provides school students with an opportunity to observe and learn more about nature, its diversity and other aspects, thereby motivating them to be environmentally literate and responsible citizens.

NGC activities are implemented through the State Nodal Agencies at the state level and the District Implementation and Monitoring Committee at the district level. Centre for Environment Education (CEE) facilitates NGC activities in 15 states and two Union Territories, covering about 347 districts.

1.1.1 NGC in the Northern Region

1.1.1.1 Uttar Pradesh

In 2014-15, the NGC programme was revived with the close coordination between State Nodal Agency (SNA) - Directorate of Environment (DoE), Government of Uttar Pradesh, and CEE North. Several rounds of meetings were organised with the nodal agency before the approval and after the sanction of funds. To reinstate the programme in the state and plan for the yearlong activities, CEE provided inputs in terms of developing formats, contents and communication.

Coordination and Outreach Activities: CEE team had regular meetings with the nodal

officer and other officials of SNA to review the progress and plan the activities. It was decided to cover over 12000 schools from 70 districts in the state. However as the NGC programme was being revived after 7-8 years, the State Steering Committee advised that each district should conduct a reselection of eco-club schools on the basis of interest, and also obtain bank details as the eco-club grant would be transferred online through NEFT. The Steering Committee held 3-4 rounds of meetings including with the education department in order to revitalise the programme. Based on the inputs from CEE, the committee took decisions on selection of schools, reconstitution of the District Implementation and Monitoring Committee (DIMCs) and reselection of master trainers, for which relevant government orders were issued.

CEE North provided technical input in reaching out to maximum schools, in following up with schools for bank details, documenting of NGC activities in the state for report submission and in the planning of activities. CEE supported the nodal agency in conducting the state level Master Trainers training workshop. CEE also organised a series of environment related events with NGC schools in the state during 2014-15. Details of activities undertaken during the year follow.

In April 2014, CEE, in association with Directorate of Environment, Government of UP and Regional Science Centre (RSC), Lucknow, observed Earth Day on April 22, 2014. The programme was organised for the eco-club schools of Lucknow, and included a quiz competition on Climate Change, followed by a painting competition and an interactive session with an expert. The programme had 200 participants including students and teachers from 20 NGC schools of the district.

In June, on the occasion of World Environment Day, CEE North, in association with Regional Science City, organised an event for students where several learning with fun competitions were organised for the participants. Participants also got to hear about the experiences of an Indian Scientific Expedition to Antarctica which gave an insight into how scientific research is helping assess the level of climate change. More than 500 students, teachers and parents participated in the programme.

In August, a formal launch ceremony was organised jointly by CEE North and the newly appointed state nodal agency - Directorate of Environment and Forests and the old nodal agency UP Pollution Control Board, which was held on August 30, 2014. More than 250 students and teachers from 17 schools participated in the event. The Regional Coordinator of CEE North briefed the audience about the NGC programme and its structure along with the process of formation and role of eco-clubs. The chief guest of the event, Agricultural Production Commissioner and Principal Secretary, Environment & Forests, Government of Uttar Pradesh, said that the programme has been reinitiated after a gap of 7-8 years and shared his thoughts on how NGC could be effectively implemented by learning from our past mistakes. He stressed the importance of resource agencies like CEE in the implementation of NGC activities by providing resource material, training and other technical inputs. A web page on the NGC programme in Uttar Pradesh was also launched on the occasion.

Training: In December, a two day state level NGC Master Trainers Training Workshop was organised at the Directorate of Environment, Lucknow. The workshop was

jointly organised by the NGC State Nodal Agency - Directorate of Environment, and State Resource Agency - CEE North, to train and orient master trainers from various districts of Uttar Pradesh about implementation of the NGC programme. Over 90 master trainers from 46 districts participated in the two day workshop.

The workshop was inaugurated by the Principal Secretary, Environment and Forests, who said in his inaugural address that under the NGC programme it is not enough to form eco clubs; our main objective should be to make the students enlightened citizens of the world. Teaching and creating awareness in children should be our main motive. The former secretary, State Education Department, addressed the trainers and motivated them to bring about positive change at a time when major changes are happening in the environment, we should understand our role as protectors of the environment. The Regional Coordinator, CEE North, gave a brief overview of the programme and also shared past experiences of NGC in UP. The CEE team conducted the two day training module where master trainers were given resource material and guidelines on how NGC would be taken forward at the district level.

CEE North as State Resource Agency was invited to two district level NGC Teachers Training Workshops. A two day workshop was held in February 2015 in Agra and a one day workshop in March 2015 Pilibhit District which was attended by more than 300 teachers. The workshop aimed to build the understanding of teachers about the NGC programme and planning of eco-club activities.

Educational material was disseminated by the state nodal agency - Directorate of

Environment, and CEE. The workshop was jointly organised by the District Implementation and Monitoring Committee (DIMC) with the support from Master Trainers and State Resource Agency - CEE North. It was facilitated in the presence of the District Magistrate, District Inspector of Schools (DIOS) and District Forest Officer (DFO). Representatives from CEE North facilitated the technical sessions during the training programme.

Teachers training workshops were also organised in four locations covering six districts for NGC school teachers with support from local NGOs. These workshops were supported under the Earthian-*Paryavaran Mitra* programme and focused on water and sustainability. As part of the Dolphin Conservation Education programme also, eight teachers training workshops were organised in Uttar Pradesh by CEE in association with the local partner NGO and education department.

Educational Material: A brochure on NGC that gives an insight into the programme was developed and designed by CEE North in collaboration with the state nodal agency, Directorate of Environment. The brochure has been developed both in Hindi and English languages and is being used to communicate with various stakeholders of the programme, specially the eco-club schools. Apart from this, CEE with the support of SNA has developed content for the NGC webpage, NGC facebook page and a whatsapp group of master trainers.

A climate change booklet in Hindi was developed by CEE North with financial support from the Directorate of Environment for the World Environment Day 2014 programme for schools targeted at the eco-clubs. Biodiversity campaign posters, a

dolphin package that includes a book and poster, Earthian booklet in Hindi along with water testing kit, and *Paryavaran Mitra* Teacher's Handbook in Hindi were disseminated to the schools.

Monitoring: As the NGC programme was revived after a gap of 7-8 years, it was decided to take up monitoring once the eco-club funds have reached the schools. As database on the newly selected NGC schools is being developed and maintained by CEE.

1.1.1.2 Bihar

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

CEE North as the Resource Agency for NGC in the state closely works with Master Trainers, teacher in-charges and schools in different districts. The following programmes were organised in the state.

Coordination and Outreach Activities: In May 2014, on the occasion of the International Biodiversity Day, *Rajkiya Kanya Madhya Vidyalaya*, Sasaram, in association with CEE, held a rally in their community during which students also presented a *nukkad naatak* that conveyed the message of the importance of biodiversity in our lives and its conservation. After the rally, students planted saplings in their school campus and took a pledge to take care of them. With this, a six month Biodiversity Conservation campaign also started in the school.

On the occasion of World Environment Day 2014, *Gram Pragati*, Bettiah in collaboration with CEE North, organised various events for students of the district. Several learning with

fun competitions were organised for the participants. Students of two schools conducted a cycle rally followed by a painting competition. In another event in the district, three schools came together and carried out a plantation drive in and around their campuses. Students of these schools also distributed cloth bags with environmental messages on them to spread the message of minimising the use of polythene bags.

In Sasaram, on the same occasion, CEE North in association with the NGC Master Trainer, took out a rally from the school to Sher Shah Suri Tomb, a heritage site, where the general public also joined the students and participated in a *Swachatha* campaign.

During Wildlife Week in October 2014, a rally was organised by CEE North and *Gram Pragati* jointly, in which more than 500 students participated. The rally went through the main route of Bettiah where students made an appeal to the general public to be more sensitive towards wildlife and to work for its conservation. After the rally, a painting competition was organised at Udaipur Wildlife Sanctuary, Bettiah. Around 50 students from five schools participated in this event.

During March 2015, CEE North in collaboration with *Gram Pragati*, organised an awareness rally with the schools of Bettiah to commemorate the World Sparrow Day. After the rally, a talk and a quiz competition was organised for the participants. As the sparrow is also the state bird of Bihar, the event was apt and the participants took a pledge to conserve this species. Representatives of *Gram Pragati* briefly introduced the importance of celebrating World Sparrow Day. Around 100 students, NGO representatives and media persons participated in the programme.

In February 2015, three schools from West Champaran and Rohtas were felicitated at the national level for their exemplary work on water conservation under the Earthian - *Paryavaran Mitra* programme. Earthian is an intensive water based initiative where schools work for 4-5 months for water conservation efforts and submit their report. The strategy adopted in Bihar was to work with CEE's existing network of schools and to involve local partner organisations.

Training Support: Teacher training workshops were organised in West Champaran and East Champaran for NGC school teachers with the involvement of master trainers and a local NGO, which were supported by the Earthian - *Paryavaran Mitra* programme and focused on water and sustainability. As part of Dolphin Conservation Education programme, seven teacher training workshops were organised in Bihar by CEE in association with the local partner NGO and the education department.

Educational Material Development: Resource material on dolphin and elephant conservation was shared with schools in various districts. Apart from this *Paryavaran Mitra* Teachers Handbook was also disseminated among NGC schools along with the Earthian booklet in Hindi on water and sustainability. Biodiversity campaign posters were sent to the schools.

Monitoring: The monitoring of schools could not be taken up due to the unexpectedly long winter break, exams and a teachers strike lasting for over two months. It is planned to be taken up in the next year academic session.

1.1.2 NGC in the Central Region

1.1.2.1 Madhya Pradesh

The National Green Corps programme presently covers over 1250 schools spread across 50 districts in Madhya Pradesh. CEE MP, as the State Resource Agency for NGC, supported the programme and the nodal agency by providing technical guidance, developing resource materials for dissemination and facilitating various events like environment days celebrations, training programmes, NGO consultations and the like during 2014-15.

On the occasion of World Environment Day, posters with the theme of 'Raise your voice, not the sea level' were distributed in 100 schools across the state.

Coordination and Outreach Activities: The Biodiversity Campaign saw distribution of biodiversity kits to 500 schools spread across 50 districts that come under the NGC Programme. Going further, as part of the campaign, five trees were planted per school across the identified 500 schools under the project. Varied activities to engage student were conducted as part of the Sustainable Education Initiative Programme which ranged from poetry and essay writing to painting and drawing competitions. The programme reached out to 15000 students, 600 teachers and 500 schools and oriented them on the theme of biodiversity conservation.

Training Support: In October 2014, CEE MP organised a two day master trainers programme to provide orientation on Sustainable Education Initiative. About 90 master trainers from across the state attended this training. A district level teacher training workshop was conducted in August 2014 to

create awareness about NGC and its activities, along with providing clarity on the expectations from eco-club schools and teachers for the Biodiversity Campaign. The training saw attendance of over 125 teachers.

Monitoring: CEE team visited 55 NGC eco-club schools of Madhya Pradesh state during August and September 2014. Four hundred schools were contacted telephonically to get insights into the types of activities undertaken and to discuss future activities.

1.1.2.2 Chhattisgarh

As a resource agency, the role of CEE is to assist and facilitate the Nodal Agencies in the overall implementation of the NGC activities in Chhattisgarh state.

In 2014-15, initial meetings and discussions were conducted with the Nodal Officer, Chhattisgarh Environment Conservation Board for organising nature camps and Master Trainers workshops. Visits were undertaken to 186 schools as part of the monitoring work. Teachers training programme was conducted for 175 in-charge teachers of eco-clubs in five districts.

Coordination and Outreach Activities: The Chhattisgarh state level *Eco Baal Mela* was organised by the Chhattisgarh Environment Conservation Board (NGC-Nodal agency) with support from CEE Chhattisgarh from August 27-29, 2014. About 180 eco-club members and their in-charge teachers from different districts of the state participated in the three day *eco baal mela*. Eco-clubs were given the opportunity to present their work through presentations, models, reports, albums and stalls. The schools, teachers and students adjudged winners in the competitions organised as part of the Earthian programme

and by Petroleum Conservation and Research Association were contacted and motivated to continue the exemplary work they have been doing. The database of NGC eco-clubs has been updated. Master Trainers were contacted over phone and were reoriented to take up new initiatives under the eco-club programme in the next academic year.

Educational Material Development: CEE Chhattisgarh has developed two types of resource materials in Hindi for the school eco-clubs. Three posters were developed during the session on World Environment Day, polythene usage and biodiversity. An NGC guideline booklet which gives brief information about the programme and guidelines for schools for management and record maintenance of the programme was also developed.

1.1.3 NGC in the Western Region

1.1.3.1 Rajasthan

Meetings were held with the State Nodal Agency in Rajasthan round the year for conducting eco-club activities. The State Steering Committee meeting for NGC was held on January 28, 2015 at Jaipur.

Coordination and Outreach Activities: CEE Jaipur celebrated Earth Day on April 22, 2014, with the theme Green Cities in which 500 eco-clubs took part. In collaboration with the Department of Environment and Forests - Government of Rajasthan, Rajasthan State Biodiversity Board, and Rajasthan State Bharat Scouts and Guides (RSBSG), CEE Jaipur organised an event to commemorate International Day for Biological Diversity 2014 in Jaipur.

The CEE team facilitated participation of ten eco-clubs from different districts of Rajasthan

in this event. To commemorate World Ozone day, eco-clubs of Rajasthan organised various events on September 16, 2014. Eco-clubs from Rajasthan organised a variety of activities under the Clean India Mission launched on October 2. Students from 15 eco-clubs of Sikar district comprising 200 students and 15 teachers executed a plan to revive the *Bada Taalab*.

A block level event was organised by eco-clubs of Kalandri Block, Sirohi, to celebrate Children's Day in November 2014. In its third phase, the Science Express ~ Biodiversity Special (SEBS), an innovative mobile exhibition train, halted at six stations of Rajasthan from December 29, 2014 to January 22, 2015. CEE as the state resource agency for NGC invited schools to visit the train and participate in the activities. To commemorate World Forestry Day and World Water Day in March 2015, CEE Jaipur, along with eco-club members of Sikar, organised a two day event at the district headquarters of Scouts and Guides.

Prakriti Mela for the academic year 2014-15 was organised from February 16-20, 2015 at Ajmer. This year the event became a national one with students and teachers of eco-club schools and *Paryavaran Mitra* schools showcasing their award winning projects and sharing their experiences in Environment Education and Education for Sustainable Development at a two day exhibition.

Training Support: CEE organised trainings for eco-club teacher in-charges at eight locations in Rajasthan during August. About 213 eco-club in-charges attended these programmes at Bikaner, Bhilwara, Jaipur, Jodhpur, Kota, Sawai Madhopur, Sirohi, and Udaipur. District level eco-club in charges training

programmes were organised in Sikar and Jaipur on October 14 and 15, respectively.

Monitoring: A total of 70 NGC schools across 11 districts in Rajasthan were visited as a part of monitoring.

1.1.4 NGC in the Eastern Region

CEE provided support to the NGC Master Trainers training programme in Odisha which was held at the Regional Museum of Natural History, Bhubaneswar. The CEE team from the NGC Secretariat was invited as resource persons by Centre for Environmental Studies (CES), the State Nodal Agency for Odisha, for the workshop. The workshop which was an orientation for the master trainers to develop activities for implementation in schools had 180 participants from across the state.

1.1.5 NGC in the North- East Region

Meetings were held with the SNAs of Assam, Manipur, Mizoram, Nagaland, Tripura and Sikkim to discuss the activities for the year 2014-2015. Meetings were also held in these states to identify case studies for a publication on best practices.

Coordination and Outreach Activities: CEE North East celebrated World Biodiversity Day on May 22, 2014 with eco-club members of the The Lalpuithluaii Foundation School of the Churachandpur District, Manipur. Around 1200 students from 44 NGC schools in five districts of Assam participated in the PCRA painting and essay competitions. Various radio programmes were held for eco-clubs on days of environmental importance. A television programme titled Importance of Environmental Education was telecast by Doordarshan Programme Production Centre, North East (PPC-NE) on March 20, 2015. Dr.

Simanta Kalita from CEE North East (Assam State Resource Agency) and Mr. Jaideep Baruah, Head, Environment Division, Assam Science and Technology Education Council (ASTECC) (Assam State Nodal Agency) participated in the discussion on the evolution of Environment Education (EE) in India, EE in the school curriculum and project based learning mode followed by eco-club schools.

Training: CEE North East provided support to a series of eight refresher workshops for teacher in-charges of 612 eco-clubs. The programme was held during March 24-30, 2015 in all the districts of Tripura. The ENVIS Centre at the Forests, Environment and Wildlife Management Department, Government of Sikkim (NGC Nodal Agency in Sikkim) organised a two day eco-club teachers training programme on November 27-28, 2014. CEE North East team provided the resource person for the training.

Monitoring: Monitoring visits conducted include 32 schools in Assam, 16 in Manipur, 11 in Mizoram and 30 in Tripura.

1.2 Paryavaran Mitra Programme 2014-2015

Paryavaran Mitra programme is an initiative of CEE in partnership with the Ministry of Environment and Forests and ArcelorMittal India. It is a nationwide initiative to create a network of young leaders from schools across the country, which has 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 called Pick Right-Kaun Banega Bharat ka *Paryavaran* Ambassador has been 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 219888 schools who have received the its resource material and are carrying out action projects focusing on local environmental issues in five themes: Water and Sanitation, Biodiversity and Greening, Energy, Waste Management, and Culture & Heritage. The programme encourages schools to qualitatively enhance their learnings through project based methods and share their experiences.

1.2.1 Paryavaran Mitra Puraskars – 2013 & 2014

Exemplary work done by schools, teachers and students is being recognised through the *Paryavaran Mitra Puraskar* (*Paryavaran Mitra Awards*).

1.2.1.1 Paryavaran Mitra Puraskar 2013

In all, about 2500 schools responded and submitted their entries in school, teacher and student categories. Through a process of scrutiny at state level by experts in the field of education and environment that included government officials, 96 schools, 65 teachers and 57 students were nominated for the national level *Puraskar*. A National Committee, comprising of eminent experts in the field of education, environmental education and environmental solutions, short listed 15 schools, 14 teachers and 15 students for the *Paryavaran Mitra Puraskar* at the national level. The *Puraskar* for the year 2013 was awarded at CEE Ahmedabad on October 14, 2014. Four best schools, teachers and students were awarded.

Best Schools

1. Gopal Krushna High School, Subalaya, Odisha
2. Anglo Bengali Inter College, Allahabad, Uttar Pradesh
3. Kasturba Gandhi Balika Vidyalaya, Malihabad, Lucknow, Uttar Pradesh
4. F.D. High School, Maktampur, Ahmedabad, Gujarat

Best Teachers

1. Amit Sengupta, Government High School, Kikrma, Nagaland
2. Arun Kumar Sahu, Government Girls Senior Secondary School, Balod, Chattisgarh
3. Ambrish Tiwari, Rajkiya Kanya Madhya Vidyalaya, Sasaram, Rohtas, Bihar
4. Pramod Kakde, Seth Joti Prasad Vidyalaya, Daund, Taluk Daund, District Pune, Maharashtra

Best Students

1. Apurv Lele, Sheth Jotiprasad Vidyalaya, Daund, Maharashtra
2. Aishwarya P, Bharatiya Vidya Bhavan's Public School, Jubilee Hills, Hyderabad, Andhra Pradesh
3. Hansi Patra, Phulbari Sitala High School, Sagar, South 24 Parganas, West Bengal
4. Anushka Kale, Manasarovar Pushkarani Vidyashrama, Mysore, Karnataka

1.2.1.2 Paryavaran Mitra Puraskar 2014

Paryavaran Mitra Puraskar 2014 was launched in partnership with the Regional Institute of Education, Ajmer. The felicitation event held at Ajmer, saw participation of about 200

teachers and students shortlisted in the category of school, teacher and student. The following were identified as the best performing participants.

Best Schools

1. Bharatiya Vidya Bhavan s Public School, Vidyashram, Jubilee Hills, Hyderabad, Telangana
2. Mpups Regalla, Regalla, Kothagudem, Khammam, Telangana Andhra Pradesh
3. Purva Madhyamik Vidyalaya, Itaunja, B K T Lucknow, Uttar Pradesh
4. Army Public School, K. Kamaraja Road, Bengalure, Karnataka
5. St. Kabir School, Branch Naranpura, Ahmedabad, Gujarat
6. Rajkiya Madhamik Vidyalaya, Dhandal Lekhu, Post Narwasi, Tehsil Rajgadh, District Churu, Rajasthan

Best Teachers

1. Meena Kapoor, Purva Madhyamik Vidyalaya, Lucknow, Uttar Pradesh
2. Saruparam Mali, Rajkiya Secondary Vidyalaya, Sirohi, Rajasthan
3. Rati Agrawal, Rachana School, Ahmedabad, Gujarat

Best Students

1. Muskan Agarwal, Gwalior Glory High School , Gwalior, Madhya Pradesh
2. Sarath Babu V, G H S S Pilicode, Kasargod, Kerala
3. Amit Prasad Sahoo, B M High School , Old Town, Bhubaneswar, Odisha
4. Abhishek Dubey, Sos Hermann Gmeiner School , Varanasi, Uttar Pradesh

5. Abhinav Mishra, Kendriya Vidyalaya, Gomti Nagar , Lucknow, Uttar Pradesh
6. Abhishek Rudra, Delhi Public School, Greater Noida, Uttar Pradesh
7. Prabhleen Bhatia, La Martiniere Girls College, Lucknow, Uttar Pradesh
8. Swagath R. Swamy, Rachana School, Shahibaug, Ahmedabad, Gujarat
9. Lakhinana Niharika, Sri Z P High School, Kasibugga, Srikakulam, Andhra Pradesh
10. Maanya Chaudhary, Seth Anandram Jaipuria School, Vasundhara, Ghaziabad, Uttar Pradesh
11. Isheen Agarwal, Rachana School, Shahibaug, Ahmedabad, Gujarat

1.2.2 Paryavaran Mitra Campaigns and Activities

Swachh Bharat Abhiyaan: Supporting the Prime Minister s vision of a clean India, *Paryavaran Mitra*, SAYEN and CEE launched the *I am Swachh I am Swasthh* Campaign from November 14, 2014. This initiative encourages schools and youth to go beyond the symbolism and temporary action and focus on sustained actions towards sustainability at the school level as well as individual student and youth level.

Hand Print Commitments – Video Challenge:

In partnership with Earth Day Network - India, a nationwide campaign was launched on the theme of *It s my turn to lead now* . This is a social media campaign to encourage school students to play a catalyst role to spearhead the environmental awareness activities among their school authorities, families and in their neighborhood. In the process, students explored and prioritised the issues in and

around the school. About 70 schools shared their commitment for next academic year.

Paryavaran Mitra Programme showcased at UNESCO-ESD Conference: Paryavaran Mitra was one of the 25 Handprint project stories from across the world selected for showcasing at the end of the Decade of Education for Sustainable Development (DESD) conference held in Nagoya during November 9-11, 2014. *Paryavaran Mitra* was also showcased amongst the five best ESD projects from India. *Paryavaran Mitra* Young Leader for Change Anushka Kale's action project facilitated by CEE was selected for this. The project **Good Practice Stories on Education for Sustainable Development** of UNESCO is aimed to build momentum for Education for Sustainable Development (ESD) and document the knowledge of innovative ESD initiatives across India. *Paryavaran Mitra* is one of the largest handprint projects with schools in India.

Paryavaran Saathi - An online communication platform for educators: This service uses the internet and mobile telephony to resolve queries of educators related to EE/ESD and reach out to schools and teachers in the network. The aim of the platform is to provide online support for educators to effectively transact EE/ESD in schools. The service was launched on October 14 and is now open in four languages: English, Hindi, Marathi and Gujarati. It will be available in all major Indian languages shortly. The toll free number for this service is 1800-3000-0996.

Website: *Paryavaran Mitra* website continues to be the platform for teachers/schools to be updated on the latest information about the programme and to access a wide variety of resources related to the programme.

Newsletter: The monthly newsletter covered several handprint actions from the Puraskar awards and from campaigns. The newsletter is also a medium to provide teachers with ideas for Handprint actions in the schools.

Publications about the Programme:

Gregory, A., Sharma, P. (2015) *Changing role of the teacher in building environmental leadership skills amongst students - experiences from student environmental action*. Presented at the Third International Conference of Creativity and Innovation at the Grassroots. January 2015.

Sharma, P., Gregory, A. (2015). *Learning to Live Sustainably: Reflections based on the Paryavaran Mitra programme*. Learning Curve, Issue XXIV Azim Premji University

1.2.3 Paryavaran Mitra – CEE Andhra Pradesh (AP)

CEE AP has implemented *Paryavaran 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 actions towards Sustainability and Climate Change - on the themes of biodiversity, waste management, culture and heritage, energy and water conservation.

State Level events were organised separately in two states - in Andhra Pradesh and in the newly formed Telangana state with the support of *Sarva Shiksha Abhiyan* (SSA) SSA of both states. SSA AP has taken the initiative to implement *Paryavaran Mitra* programme in the 13 districts of Andhra Pradesh. CEE has oriented 134 District Resource Persons (DRPs) on the programme objectives and implementation strategy. Materials were distributed to 500 schools; 100 reports were received.

1.2.4 Earthian – Paryavaran Mitra Programme

Building on the successful engagement of CEE and Wipro during 2013-14, it was decided to take forward the collaboration on the agenda of environment education and sustainability education across schools and colleges. Wipro and CEE joined hands to work together through the Earthian initiative of WIPRO and *Paryavaran Mitra* initiative of CEE.

The partnership involved the schools in the *Paryavaran Mitra* network, particularly government schools with Hindi as the medium of instruction, in activities related to the issue/theme of water. This partnership programme was implemented in the states of Uttar Pradesh, Bihar, Rajasthan, Gujarat, Chattisgarh and Uttarakhand.

The activities under the project involved development of an Earthian brochure and translation of the Earthian booklet into Hindi for dissemination in schools and dissemination of Earthian material to 6000 schools in the *Paryavaran Mitra* network in the above mentioned states. It also included training of 800 teachers from selected schools in these states to facilitate projects/activities on water in their schools and submission of 300 entries from schools in the above states.

Based on the strategy adopted by CEE team for 2013-14, the Earthian-*Paryavaran Mitra* programme strategy for the current year was reviewed and discussed during an internal meeting held in July 2014. As part of the strategy, CEE team decided to work with the existing network and partnerships of the *Paryavaran Mitra* programme in the identified states. In view of the feedback received from teachers and schools, CEE team developed brochure about the programme and also helped

in the translation and adaptation of the booklet into Hindi. A webpage was also created on www.paryavaranmitra.in along with information being shared through newsletters.

The strategy was adapted for each state as the *Paryavaran Mitra* programme itself has evolved organically from CEE's experiences since the last 30 years in different parts of the country. A meeting of CEE team members from the states involved in the programme was held in Lucknow to discuss and formulate the school level activity, the time line and state specific targets. Though the programme was initiated in August, the delay in receiving the water testing kits posed a challenge in disseminating them to schools. Against the target of reaching out to 6000 schools with Earthian material, much more than 6000 schools were sent material through post or during face to face training.

Against a target of 800 teachers to be trained under the programme, over 982 teachers were covered through the training programmes. Around 282 activity reports were received from schools at the end of the programme, from which CEE team shortlisted 42 reports for national level evaluation. The evaluation committee selected eight reports as national winners and four reports as runners up.

Uttar Pradesh (UP): The strategy adopted in UP was to use the existing network of schools which included those involved in National Green Corps, Children's Forest Programme and Ganges River Dolphin Conservation Education Programme, and to involve CEE's partner organisations who have worked with schools in implementing the *Paryavaran Mitra* programme in various districts of the state. CEE team identified various districts for conducting teachers's training through which 225 teachers were covered. Material was sent

out to 2000 schools. Over 80 reports were submitted by schools in the state out of which nine were shortlisted for national scrutiny. Five schools from these made it to the final winner school list.

CEE North organized a series of four teacher training workshops across Uttar Pradesh in August 2014, as part of this programme with its focus on Water and Sustainability. The workshops were attended by more than 250 teachers from Allahabad, Kaushambi, Meerut, Muzzafarnagar, Pilibhit and Lucknow. The objective of these workshops was to develop an understanding among teachers about environmental education, its curriculum linkage, components of Earthian and Paryavaran Mitra Programmes and the role of schools in participating and implementing these programmes in their respective schools and communities.

The first workshop was held in Lucknow in partnership with Regional Science City with over 50 teachers from urban and rural schools participating. A retired Scientist from Central Ground Water Board spoke about the importance of rainwater harvesting. The second workshop was organised at Pilibhit, with 90 teachers participating, where the importance of a teacher in motivating children to take initiatives as also with water conservation efforts was discussed. The third workshop held at Kaushambi had over 60 teachers from Kaushambi and Allahabad participating. The fourth workshop was held in collaboration with Bharat Uday Education Society in Meerut where again more than 50 teachers participated from Meerut and Muzaffarnagar districts.

Chattisgarh: A threefold strategy was adopted here: involving National Green Corps (NGC) Master Trainers to identify and draw up a list

of active schools; announcing and disseminating information about the programme through district education offices and during teachers training; and personal visits to the schools to announce the programme and directly enroll them in it. Earthian material was disseminated to 500 schools and over 175 teachers were trained. Sixteen schools submitted their reports of which two were shortlisted for national level evaluation.

Rajasthan: The schools involved in *Paryavaran Mitra* programme were mainly targeted through CEE Jaipur team and Rajasthan State Bharat Scouts and Guides (RSBSG) as the nodal agency for implementation of activities at school level. For capacity building of selected teachers, six districts were short listed in consultation with RSBSG. CEE team also used print media for circulation of information. An article was published in Scout Guide *Jyoti*, newsletter of RSBSG, with information about the opportunity. Other fora like NGC and *Paryavaran Mitra* trainings, events and meetings of district implementation and monitoring committee were also utilised to share the information. The Earthian material was shared with over 1870 schools and training was organised for over 256 teachers. Over 90 reports were received from schools who participated in the programme from which 11 reports were shortlisted for national scrutiny. One school figured in the winning list and one in the runner up list.

Bihar: The strategy adopted in Bihar was to work with CEE's existing network of schools which included Ganges River Dolphin Conservation Education Programme and NGC. Some active NGC Master Trainers provided their support in selecting schools to implement the programme. As over the years CEE North has developed a good network of

civil society groups actively working with schools, this network was also utilised to take the programme to a large number of schools in selected districts. Material was sent to 1150 schools and over 138 teachers were trained. Over 46 schools submitted their reports from which three were shortlisted for national scrutiny: one school was selected as winner and two as runners up.

During September 2014, two one day Teacher Training Workshops (TTW) were organised by CEE North in collaboration with *Gram Pragati* at Bettiah, West Champaran and Motihari, East Champaran. The response and enthusiasm of the schools was evident from the strength of the crowd ~ 125 teachers from 90 schools attended the workshop; many of the participants had no prior association with CEE.

Notably, a school from Sasaram, an award winner, had promoted water harvesting in their school campus along with soak pits in various places. The eco-club teacher in-charge of this school took active lead and guided several schools of the district to work for water and biodiversity campaigns.

Gujarat: In Gujarat, CEE team is actively working with a school network under *Paryavaran Mitra* and Create to Inspire programmes. CEE team conducted a training programme covering 60 teachers. Over 24 schools submitted their activity report from which 11 were shortlisted. One school each was selected as winner and runner up respectively.

Uttarakhand: CEE team working with Himalayan states joined hands to take up the programme in selected districts of Uttarakhand with widespread mailing and face to face trainings. Schools which were part

of CEE's local initiatives related to disaster risk reduction education and medicinal plants, were involved in the Earthian programme. Earthian material was disseminated among 480 schools and 98 teachers were trained. Over 26 reports were submitted by schools from which one was shortlisted for national level scrutiny.

Based on the 2014-15 experience, the next phase of partnership between Earthian and *Paryavaran Mitra* is currently under discussion between CEE and WIPRO.

Andhra Pradesh

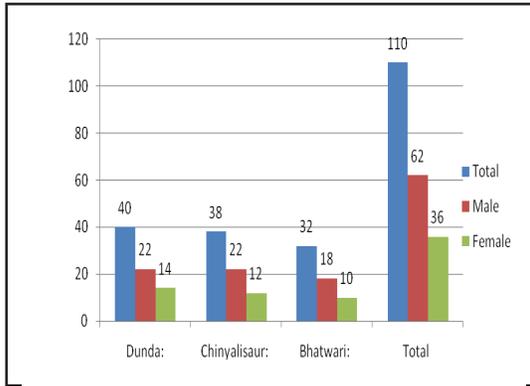
CEE Hyderabad office implemented the Earthian ~ *Paryavaran Mitra* programme in a campaign competition mode to encourage students to understand the importance of planting native species and conserving them. The programme was implemented in both the states ~ Andhra Pradesh and Telengana - with the support of NGOs and with a target of 1000 schools. Around 600 reports were received from schools of both states. To mark the International Day of Biological Diversity, 600 schools from both the states and NGOs were engaged in planting around 10000 saplings were planted in both the states.

1.2.5 Earthian - Paryavaran Mitra: Water and Sustainability Programme – CEE Himalaya

CEE Himalaya organised a three day sensitisation and capacity building workshop on Earthian - Paryavaran Mitra ~ Water and Sustainability programme in collaboration with the Education Department at the Block Resource Centre office in Dunda, Chinyalisaur and Bhatwari blocks of Uttarkashi, during September 11-13, 2014. Around 110 participants attended the orientation workshop which focused on activity based

learning programme for schools and colleges on sustainable use of natural resources.

The detail block wise participation is presented in the figure below:



The programme schedule was kept the same for all the 3 Blocks. On September 11, 2014, at the Block Office in Dunda, Team CEE welcomed all the participants and shared the agenda of the orientation programme. A documentary produced by CEE of *Sankalp Diwas* in memory of the flash flood victims of June 13 in Uttarakhand was screened to create awareness in the audience about water related issues. The participants were involved in an ice breaking activity that also helps highlight different ways of thinking. Sumit Verma of CEE made a presentation covering various aspects like availability of water, percentage of fresh water, use of water for life support, limitation of ground water, future without water and related topics. This was followed by documenting the expectations of the participants from the orientation programme.

In the next session, Earthian - Sustainability & Water an activity based learning programme for schools and colleges was introduced and discussed in detail. A brochure and book on it was shared with the teachers. CEE Himalaya team also talked about the

Earthian award for which schools will be selected based on their submitted reports. CEE also intends to engage with the award winning schools and colleges over a sustained period of time to help integrate sustainability education in a holistic way, involving both teachers and students.

A game titled where does our water come from was played with the teachers through which the source/s of water used in homes were identified. This helped participants understand that provision of water is an important service provided by the government; and that water is becoming a commercial product. The teachers identified natural spring and government water supply as the source of their water, and also said that they stored water in tanks, buckets and drums for domestic purpose.

After this game, the process of preparing effective reports was discussed and previous year s reports shared with the participants. The action plan and time line for report submission were also discussed with the teachers, with November 15 being the last date. In the open group discussion that followed, teachers discussed the traditional water flour mill called *Gharat* which is operated by water springs and utilises a stream s kinetic energy to turn the shaft of the mill. The value of trees was also discussed with the participants. All the teachers received participation certificates at the end of the programme.

1.3 Ganges River Dolphin – Conservation Education Programme

Ganges river dolphin (*Platanista gangetica gangetica*) is listed as Schedule 1 species in the Wildlife Protection Act 1972 and recognised

as Endangered^f by IUCN. CEE North has been working on the species since its inception as part of its river conservation initiatives. Being declared as a national aquatic animal, 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. As a result, CEE with the support from Ministry of Environment and Forests (MoEF) has initiated and implemented a two year Ganges River Dolphin Conservation Education Programme since July 2010 where a total of 20 project locations were identified along the Ganges and Brahmaputra river systems in four states - Assam, Bihar, Uttar Pradesh and West Bengal.

Based on Phase I experience, CEE is implementing Phase II of the programme with support from the National Mission for Clean Ganga (NMCG), National Ganga River Basin Authority (NGRBA) under the Ministry of Water Resources, and Ganga Rejuvenation and River Development (GRRD). This Phase II of the project is titled Educating Schools and Community for sustainable actions for conserving the habitat of Ganges River Dolphin along Ganga River Basin.

As part of the school component, CEE North is working on 20 locations in the Ganga Basin covering 10 locations each in Uttar Pradesh and Bihar, while under the community initiative CEE is working with five villages each at Bahraich and Bettiah in both States.

1.3.1 School Interventions

Selection of Project Locations: For the school component under the project, CEE team reviewed the suitability of the earlier locations and responses from the area. Based on the presence of Ganges river dolphin in the river

and need for such a programme in the area, 20 project locations were identified in Uttar Pradesh and Bihar. The 10 locations selected in UP were: Hastinapur (Meerut), Bijnore, Jarwal, Katerniaghat and Mahsi in Bahraich district, Gonda, Faizabad, Etawah, Allahabad and Varanasi. The 10 locations in Bihar were Supaul, Begusarai, Bhaglapur, Bagaha and Bettiah (West Champaran), East Champaran, Muzzafarpur, Gopalganj, Patna and Saran. Along with this, community locations were also selected in both the States.

Orientation Workshop: In June 2014, a two day orientation workshop was organised by CEE North in association with Directorate of Environment (DoE), Government of Uttar Pradesh, where the CEE team shared its experience of working on the Ganges river dolphin programme. Principal Chief Conservator of Forests, Wildlife, UP Forest Department, addressed the participants and spoke about the need for such an education and awareness initiative for species conservation. A senior environment specialist from NMCG gave a brief introduction to NGRBA and Ganga Action Plan phase 1 and 2 with respect to conservation of Ganga and the dolphin. The Agriculture Production Commissioner and Principal Secretary, Environment and Forest, in the concluding session, dwelt on the usefulness of the workshop and shared some examples of Biodiversity Conservation with respect to rivers with a focus on sustainable development. Over 30 participants representing 15 NGOs from UP and Bihar participated in the workshop, in which project locations and respective partner NGOs were finalised. A Memorandum of Understanding was signed to initiate the activities in each location which included enrollment of school, teacher training workshop, activities at school

and community level, cluster level awareness event and school reports.

School Enrollment and Teacher Training Workshop: As part of the programme, in each school cluster location, over 35-40 schools were enrolled by partner NGOs with support from Education department. These dolphin cluster schools were located close to the river at 3-5 km distance. A two days teacher training was conducted in the project locations; 15 such workshops were conducted by CEE North with the partnership of NGOs and Education Department in UP and Bihar. Each workshop oriented teachers on the formation of dolphin clubs in their schools, conducting curriculum focused classroom activities using the dolphin educational package and organising school level and community level awareness programmes.

The first workshop was held in Varanasi district in August 2014, in association with the NGO *Vikas Evam Shikshan Samiti* (VESS), Varanasi. It was attended by 30 teachers from 26 schools. A dolphin expert from Banaras Hindu University addressed the teachers and gave an overview of the species and its habitat. CEE North team members conducted various technical sessions and oriented the teachers on using the education package in classroom teaching. They further guided schools in preparing their school action plan. A school in the cluster was selected as Ganges River Dolphin - Education Resource Centre where a set of educational resources including *Pani Parikshan* Kit and Manual, Dolphin Awareness Campaign Banner, set of posters, reference books, etc. were provided for the use of cluster schools. Each cluster developed their strategy for dolphin awareness activities.

During September - March 2014, over 14 workshops were organised covering the project

locations in UP and Bihar, with more than 550 teachers participating. During training, each teacher was provided with the educational package consisting of a dolphin activity book, display poster, dolphin badge, stickers and book marks.

1.3.2 Dolphin Cluster Awareness Programme

As part of dolphin programme, school clusters at different location in Uttar Pradesh and Bihar organised cluster level events which included dolphin awareness rally, ghat cleaning campaign, exhibition, *nukkat natak*, cycle rally, save dolphin - save Ganga pledge campaign, etc. Dolphin schools, along with the local NGO and other partners, organised dolphin awareness activities on environment related days and on the occasion of river related festivals. The cluster level awareness programmes were held at 10 dolphin locations including. In some of these competitions like essay writing, painting and quiz were also conducted. Exposure visits were organised for students and teachers at river banks where learning-with-fun activities were conducted. More than 2500 children from dolphin clubs took part in these events where many of them have creatively expressed their thoughts about dolphins in the form of models, drawings, songs, poems, etc.

1.3.3 Ganga Manthan - National Dialogue on Ganga

A *Ganga Manthan* Conference was held in July 2014 at Vigyan Bhawan in New Delhi, organised by National Clean Ganga Mission, Government of India. Participants numbered more than 1000 and included renowned saints, naturalists, NGOs, technocrats, government and public representatives. Representatives of CEE North along with nine

partner NGOs of the Ganges river dolphin project took part in the conference.

Three groups consisting of NGOs, environmentalists, educationists, technocrats, saints, public representatives and administrators were formed and consultations were held. CEE team along with dolphin partner NGOs and 200 participants took part in one such consultation-discussion. Each group came up with many ideas and suggestions which would be integrated in upcoming endeavours of the Ministry of Water Resources, River Development and Ganga Rejuvenation.

1.4 Children's Forest Programme (CFP)

Children's Forest Programme (CFP) is a project initiated in six districts under the Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project (UP-PFMPAP) of UP Forest Department supported by JICA in 2010. CEE North has been implementing CFP in Lucknow District of UP. CFP aims to create understanding among children about the value of trees, and to motivate and support them to plant saplings in school campus as well as ensure their protection. The programme focuses on engaging children, teachers, school management and local community in meaningful action to promote environment conservation.

With the overwhelming response in the six districts where the project was implemented, Phase II of the programme has been introduced with seven more districts being selected for the CFP initiative. CEE North now has responsibility to implement the programme in Bareilly District in this phase, along with Lucknow.

Lucknow District

In April 2014, CEE North, under its CFP programme, celebrated Earth Day at the Regional Science City (RSC), Lucknow. With the focus on the theme of Green cities, CEE and RSC organised a quiz and painting competition. More than 400 students and teachers from 29 schools of Lucknow participated in the event, which sought to sensitise the students and teachers to the causes and negative impacts of climate change and their role in making their cities cleaner and greener.

In July 2014, CEE North was invited to share its experience of implementing CFP in Lucknow during a State level Annual Review Meeting of UP-PFMPAP. CEE team made a presentation on the activities being conducted in 100 schools of Lucknow as part of CFP. The presentation also highlighted how rural schools have been active in the project and showcased positive stories. An exhibition was arranged by CEE displaying various educational material and green products made by CFP schools.

In July 2014, on the occasion of International Tiger's Day, CEE North invited CFP schools to attend a state level event - a painting competition jointly organised by CEE North, UP Forest Department and Uttar Pradesh Tiger Conservation Authority. More than 250 students from 10 schools participated in the event. Students were given the topic of Save Tiger- Save Forest for the painting competition. Hon'ble Minister for Forests and Wildlife, Shri S. P. Yadav, viewed the students' paintings and was very happy to see their attachment to wildlife. He also appreciated the efforts being taken by CFP schools to make their school campus clean and green.

During July to September 2014, CEE initiated the fourth round of tree plantation in Batch A, third round of plantation in Batch B and second round of plantation in Batch C of CFP schools. Prior to plantation, CEE finalised a list of indigenous species available with the nearby nurseries and suitable for the district soil condition. Students came forward voluntarily to take up the preparation, plantation and care of the plants – their own and those on the campus. Students were briefed about the plants being planted and their importance. In each school, students who wished to plant a tree at home were given saplings for the same.

In October 2014, CEE North organised an Environment Awareness Programme for CFP schools of Lucknow, with the objective of educating students to promote on green habits of consumption so that they can reduce their ecological footprints and increase their hand print. Over 100 students from eight schools participated in painting, poem writing, slogan writing and environment quiz competitions. All the participating schools shared their views and the initiatives taken up by them towards environment conservation and awareness. This helped in sharing ideas among schools for better planning of their activities.

From October 2014 to March 2015, CEE team regularly interacted with schools on survival of plants, environment action plan implementation, environment awareness activities and self assessment, as well as participation in *Yuva Paryavaran* Leader, Earthian and *Paryavaran Mitra* initiatives.

In January 2015, as part of CFP, CEE organised a painting competition in Lucknow District prior to World Wetlands Day. School teams from over 10 schools participated in this. CEE

team conducted an orientation session through a photo story, explaining the theme for the day Wetlands - Save Our Future. Winning entries received prizes during the event.

Bareilly District

As CEE was given the responsibility of implementing CFP in Bareilly District in Phase II, activities were initiated in November with selection and identification of CFP schools. A series of networking meetings were held with Education and Forest departments. In November 2014, representatives of CEE made a presentation to the wardens of Kasturba Gandhi Balika Vidyalaya of Bareilly District. The presentation gave an overview of the CFP programme and the role of schools in it. Some success stories of Lucknow CFP schools were also shared. All the schools were keen to join the programme and be part of the campaign to make their schools a green campus. A presentation was made to the District Magistrate and a date was fixed to formally launch the programme in the district.

In December 2014, CEE North organised the launch event for the CFP with support from Bareilly Forest Division. CFP was introduced to the key stakeholders of the project in Bareilly District. Over 200 participants including school teachers, students, forest and education department officials, media representative and others participated in the launch. The chief guest of the event was the ADM, who, in his inaugural address, spoke about the interconnectedness of all living beings and non living matter, and the direct connection plants have to availability of water and temperature, and also their usefulness as a source of income. The CFP initiative conveys a very important message when each child plants and adopts a tree.

The Regional Coordinator of CEE North gave an overview of the CFP programme and shared CEE's experience with CFP in Lucknow District. A brochure developed on the programme in Hindi was also released during the function. The students who had been selected as winners in the PCRA competitions were given prizes.

1.4.1 Enrollment and Orientation of CFP Schools

CEE team divided the district into five zones covering various blocks. In consultation with the Education Department, CEE team shortlisted schools visited them. Based on criteria including interest of school, plantation space, boundary wall and community linkage, 50 schools were enrolled for the programme. CEE team then conducted an orientation session in 30 schools, deliberating on the importance of forests and how a mini forest would be created in their school. As a next step, CEE team planned a day long nature tours for schools.

1.4.2 Nature Tour for CFP Schools

CEE team, based on three shortlisted sites/locations for a nature tour for schools, selected Indian Veterinary Research Institute (IVRI) campus for the same in consultation with the Forest Department.

During February, over 350 students and teachers from four schools participated in the nature tour. The IVRI has a lush green campus with a variety of tree species, a mini zoo, demonstration of sustainable options such as vermi composting unit, organic farming techniques, pisciculture, etc.

CEE team conducted five nature tours during February and March for Kasturba Gandhi

Balika Vidyalya, in which over 500 students along with 20 teachers participated. Nature tour provides an opportunity for the students to explore nature, watch the stories they have heard about wildlife turn real, and get exposed to the ambience of nature and relate themselves to its elements. It provides a unique experiential learning opportunity to the CFP action team with nature being explored through different activities, educational games and a nature trail. It was also planned in a way that it was full of fun as well as a learning experience for the students as they also acquire knowledge about the flora and fauna of the area.

1.4.3 Environment Awareness Events

A painting competition was conducted in January 2015 as a pre event to World Wetlands day in which 200 students from 20 schools participated. During March 2015, CEE North organised an awareness rally with the schools at Bareilly to commemorate the World Sparrow Day, with 180 students and eight teachers participating. Representatives of CEE North briefly introduced the importance of celebrating this day and participants also shared their views about the species - especially that house sparrows are found everywhere from cities to farms; they like to live near people; and prefer to nest in holes in buildings.

1.5 Global Citizenship for Sustainability (GCS) Marine - Project 1600

CEE, with support from International Union for Conservation of Nature (IUCN) - Mangrove for Future (MFF) and the Adani Group, has designed, developed and initiated the Global Citizenship for Sustainability (GCS) Marine - which is an action research-based

sustainability education programme for school-communities across countries. GCS Marine offers a template of exchange and engagement across diverse cultures, and in countries and regions at different points in the development continuum.

The programme offers an exciting and challenging opportunity for students to work on sustainability issues along their coast and build leadership and problem solving skills. It connects schools on a global level to work on common coastal and marine sustainability issues through a seven step *Learning Journey* methodology. The GCS process seeks to prioritise values education, the building of partnerships, as well as innovative ways of pooling resources and involving students in problem solving.

Currently, as part of GCS Marine, 10 schools along the Gujarat coast are connected with 10 schools along the Queensland coast in Australia. This connection is uniquely referred to as the Project 1600 (symbolizing 1600 km of the Gujarat coastline). With the support of MFF, the above programme has also been initiated in Tamil Nadu with the partnership of Tamil Nadu Environment Department in nine schools from Ramanathapuram, Chennai and Puducherry; in partnership with the State Education Research and Training (SCERT) with one school in Goa; and in partnership with the Gujarat Pollution Control Board (GPCB) with 10 schools in Gujarat. The programme has a partnership with international organisations like UNESCO, CBD, the Central Queensland University and Global Learning Centre in Australia.

A key feature is the GCS Website (<http://ceegcs.org/GCS/client/index.php>) which provides a platform for the participating schools to exchange information and

experiences with their paired school from another country or region. Teachers and experts can also join the discussion forum; join webinars; use and upload relevant e-resources like audio, video, images, presentations, documents, etc.

GCS Marine Project 1600 - Activities

During the period under review, CEE Australia (CEEA) developed project plans for the Global Citizenship for Sustainability Project with support from the Adani Group. New proposals were discussed at meetings held in Brisbane in November 2014 along with ongoing project developments with CEEA's project partners at the Global Learning Centre.

In February 2015, a series of meetings were held with the Central Queensland University (CQU) in Bundaberg, Queensland resulting in the signing of an MoU between CQU, CEE India and CEE Australia on a range of project proposals spanning teacher training, GCS research and other areas including agricultural research and extension.

Activities continued on GCS as reported below.

1.5.1 Initiating GCS marine on-site trainings in schools

For the present academic year, instead of holding centralised teacher training workshops, CEE Mentors facilitated on-site, place and project based learnings directly with teachers and students in their school. This approach consisted of: recce, field visit facilitation, GCS committee formation and action plan formulation.

- i. Recce: Initially, the mentor conducts a recce of the possible field sites to get an overall understanding of the area as well as to

- ascertain whether the area is safe for the students to visit.
- ii. Field facilitation: The next day the mentor accompanies the students and the teacher to a pre-decided site where the students are trained to conduct a recce and identify the local community resources and, if possible, get the contact information of a local person to help during the project and also be a part of the GCS Committee.
 - iii. GCS Committee Formation: On the last day, the GCS Committee is formed which comprises of a teacher and 6-7 students from classes 7 to 9.
 - iv. Project Selection and Formulation of the Action Plan: The GCS Committee discusses the field visit undertaken on the previous day, shares experiences and learnings and identifies sustainability issues. This leads to a discussion for selection of the project topic. Once the topic has been decided, the mentor facilitates the formulation of the action plan for the implementation of the project and helps in drafting a timeline and resource need and also helps in locating the resources.
 - v. A baseline survey prepared by the team in Australia was altered according to the Indian context and emailed to all the schools prior to the mentor visit. All the students coming for the field visit were required to fill the survey before they embarked on the learning journey of the project. This survey served the purpose of understanding the students point of view towards sustainability and marine ecosystem and their basic knowledge on these topics. This survey will also act as a tool to measure the change in the perception as well as basic knowledge gained post project.

Table 1: GCS Committee of Schools in India

| <i>Name of the School</i> | <i>Dates of School visit – onsite training</i> | <i>Field Location (Name of village; approx distance from school; main landscape and community occupation)</i> | <i>Quantifiable data - Number of teachers; students exposed to field (standard and students; male and females)</i> | <i>Community members included as part of GCS committee (Yes / No); names</i> | <i>School Action Plan developed (Yes / No)</i> | <i>School profile and Project details uploaded on GCS Website (Yes / No)</i> |
|--|--|---|--|--|--|--|
| Tapti Valley International School, Surat | 07-09/07/14 | 35 kms | 1 teacher, 6 students (1 female, 5 male); class 8 | Yes | Yes | Yes |
| Aditya Birla Public School, Bharuch | 10-12/07/14 | 10 kms | 1 teacher, 6 students (3 female, 3 male); class 9 | Yes | Yes | Yes |
| Kendriya Vidyalaya , Diu | 27-28/08/14 | 2 kms | 1 teacher, 7 students (3 female, 4 male). About 70 students from different classes went for the field visit. | Yes | Yes | Yes |

| <i>Name of the School</i> | <i>Dates of School visit – onsite training</i> | <i>Field Location (Name of village; approx distance from school; main landscape and community occupation)</i> | <i>Quantifiable data - Number of teachers; students exposed to field (standard and students; male and females)</i> | <i>Community members included as part of GCS committee (Yes / No); names</i> | <i>School Action Plan developed (Yes / No)</i> | <i>School profile and Project details uploaded on GCS Website (Yes / No)</i> |
|-------------------------------------|--|---|--|--|--|--|
| Aditya Birla Public School, Veraval | 23-24/08/14 | 2 kms | 2 teachers, 9 students (all male) | Yes | Yes | Yes |
| MMEW, Mangrol | 25/08/14 | 3 kms | 1 teacher, 7 students (all male-it is a boys' school) | Yes | Yes | Yes |
| Adani DAV Public School, Mundra | 3/09/14 to 5/09/14 | 8 kms | 1 teacher and 6 students (5 girls and 1 boy) | Yes | Yes | Yes |
| Tata Chemicals DAV, Mithapur | 24/08/14 to 27/08/14 | 1 km | 3 teachers and 6 students (3 girls and 3 boys) | Yes | Yes | Yes |
| NVN Essar, Jamnagar | 21/08/14 to 23/08/14 | 5 kms | 2 teachers and 6 students (5 boys and 1 girl) | No | Yes | Yes |

1.5.2 Project Implementation by Schools

Each school has formulated their project action plans and is implementing it as per their timelines. These are further reported in the GCS Website. Each school has been further paired with a school from Australia as mentioned in table below:

Table 2: GCS Paired Schools and Projects

| <i>10</i> | <i>Project Outline of Indian School</i> | <i>Paired School From Australia</i> | <i>Project Outline of Australian School</i> |
|-------------------------------------|--|-------------------------------------|--|
| Tapti Valley International School | Demonstrate mangrove protection in Machhiwad fishing village near Purna Estuary and help against soil erosion from the coast | College Shorncliffe | Two projects: > Water quality analysis around the local area, down Cabbage Tree Creek > Mangrove evaluation in the local creek |
| Aditya Birla Public School, Bharuch | Demonstrate a waste management system in a fishing village household/local school for managing household waste along estuary habitations | Tannum Sands State High School | Marine Debris and litter study in Boyne river/estuary and create community awareness about the concern |

| 10 | <i>Project Outline of Indian School</i> | <i>Paired School From Australia</i> | <i>Project Outline of Australian School</i> |
|-------------------------------------|---|--------------------------------------|--|
| Kendriya Vidyalaya , Diu | Tourism impact on the beach and also on mangrove species that are endemic to their region | Bray Park State High School | Study of human impact and its global links based on observations from the Tinch Tamba to Moreton Bay. (research will be: Residential and commercial development, recreational and commercial activities, species identification, litter collection and identification, water testing, feedback from visitors, residents and commercial fishermen and links to the global community) |
| Aditya Birla Public School, Veraval | Study the changes in fishing practices along their coast and how markets influence specific demand on particular fish varieties, probably leading to overfishing trends | Lockhart State School | A Study of sustainability culture and global citizenship (Our main outcomes will be self-publishing a book and communication skills, based on observations and understanding of sustainability, culture and global citizenship from Quintell Beach area) |
| MMEW, Mangrol | Study the type of boats (modern and traditional) and its influence on fish catch and livelihood earnings across different fisher groups; Understand responsible fishing methods | Clontarf Beach SHS | Impact of discarded fish tackle on marine animals on Moreton Bay |
| Adani DAV Public School, Mundra | Plantation of Mangroves in the creek near Adani Port - Mundra | Innisfail State College | Collecting native seeds and propagating them to plant out a section of river bank. This area will become a seed bank for future seed production. |
| Tata Chemicals DAV, Mithapur | Identifying and highlighting the sustainability concerns of the salt farm industry, particularly the workers, and recommend a plan for school action | Cleveland District State High School | Health of Coochiemudlo Island marine environment Students will be using the REEFSearch program to set up long term monitoring sites at Coochiemudlo Island http://www.reefcheckaustralia.org/reefsearch.html |
| NVN Essar, Jamnagar | Identifying potential mangrove plantation site and demonstrate nursery raising and plantation in the site | Innisfail State College | Collecting native seeds and propagating them to plant out a section of river bank. This area will become a seed bank for future seed production. |



Students of Aditya Birla Public School - Bharuch conducting an awareness rally in Bhadbhut Village



Students of Tata Chemicals DAV school Mithapur learning about the coastal ecosystem

1.5.3 Facilitating Online Student Learning and Exchanges

The GCS Website is the main feature for online exchange of students project experiences and online learning. This feature brings a global outlook to the project that the students are undertaking. It also gives scope to enroll experts and other mentors to the project and also connect with individual schools.

An enhanced interactive website has been specially developed for GCS Marine Project 1600 with features such as discussion forum, online webinar with video conferencing, online chat and interactivity between paired



Messages by Indian students for Australian students

schools. The schools register online to become members and they have access to all these features as well as a resource bank. In fact, schools are encouraged to submit their reports online only, as text file, photo documentation and video documentation.

The students can interact with the mentors as well as subject experts through this website and also start new discussion topics. The schools can view each other's profiles, projects and uploaded resources and also comment on and discuss the learning journey.

The privacy settings are very high on this site and great care has been taken to moderate the content of the website, thus ensuring that all the uploaded information is secure. This website has been developed keeping in mind the main end user being schools and mainly for the school to interact with each other on a closed and safe platform.

The website can be viewed on www.ceeaustralia.org.

The student interactions happen at three levels:

1. School to School: Each school from India and Australia are paired with each other based on their common project themes and receive email alert when any one of them have posted on the website. Thus these schools follow each other's learning journey closely. The schools also view other schools learning journey and can share their views and opinions on them, thus facilitating peer learning.
2. School to School chat function: This will be a real time chat function between the two paired schools, where the students may interact based on a pre-agreed time.

They can exchange text, visuals, word files and videos.

3. **Public Discussion Forum:** A public discussion forum (through membership to GCS Marine) is available and any member may choose to begin a discussion topic or comment on other postings. The moderator will be CEE. Participating schools can join the discussions. The discussion forum can function exclusively on a particular theme, event or panel discussion, in a webinar mode, etc.
4. **Online Webinar Event:** CEE organised an online webinar on October 17, 2014, as a testing of the website feature. Two schools from India participated in the same and interacted with the CEE mentors.

A second webinar was held on November 11, 2014. Seven Indian schools and Global Learning Centre from Australia participated in this webinar. The Indian schools were very excited to interact with the Global Learning Centre and wanted to know more about what the Australian schools were doing. They also interacted among each other on the projects they were working on and their learnings. Overall now they realise the size and importance of the project and it has motivated them to strengthen their learning journeys.

1.5.4 Materials Developed

GCS Marine Project 1600 – Booklet: A special report has been developed outlining the project philosophy, vision, concept and methodology. This report also has excellent photo documentation regarding the school activities based on the learning journey essential to the project. Exceptional standard has been maintained in developing this report in order for it to be presented to the highest authorities in India as well as Australia.

GCS Poster: GCS Project had been shortlisted as one of the successful case studies for Global Citizenship Education and Education for Sustainable Development at the UNESCO Conference on ESD at Nagoya, Japan held in November 2014. A poster on GCS was developed for the same and presented during this conference. It was well received by the participants of the conference and many participants expressed their interest in the project. Special bookmarks depicting the GCS themes were produced to be given as souvenirs at this conference.

1.5.5 Students Workshop

A workshop was conducted to mark the end of the Learning Journey undertaken by schools under GCS Marine Project 1600 on February 11-12, 2015 at CEE Ahmedabad. Four schools along the coast of Gujarat participated in this workshop - NVN Essar, Jamnagar; MMEW High School, Mangrol; The Aditya Birla Public School, Kesrol; and Tapti Valley International School, Surat. The participants included 4-6 students and 1-2 teachers from each school. While three schools follow the CBSE Board, MMEW High School follows GCSE Board and the students mostly belong to the fishing community of Mangrol. The following sessions were conducted during this two day workshop:

- Field Trip
- Presentation and Self-reflection on the Project
- Social Justice session and Interaction with German students
- ICT Tools

Field Trip: A field trip was organised to Serenity Library in Ahmedabad during the GCS Workshop in order to develop amongst the students:

- Empathy
- Environmental Awareness
- Basic Sciences
- Creativity

The field activity was meant for the students to comprehend the role of the minutest organisms in the ecosystem (pond dipping), the importance of sustainability (vegetable patch and plant introduction) and to understand the basic concepts of science (growth and metamorphosis in butterfly and moth). All the activities were conducted under the guidance of Dr. Pratiksha Patel, Nature Education Officer at Serenity Library and facilitated by Ms. Janki Teli and Ms. Chintan Purohit of CEE.

The students were excited to observe the eggs and larvae of butterflies and moths at Serenity Library. They were also intrigued by the Sindoor tree, the flowers and fruits of the badminton ball tree, and the vegetable garden. The pond dipping activity gave them a perspective about creatures found in a small amount of pond water. It gave them an opportunity to understand the pond ecosystem

and then relate it to the marine ecosystem up to a certain extent. It was a hands-on experiment conducted by small groups of students which enhanced the spirit of team work and also cleared many misconceptions about life inside water and role of a single organism in an ecosystem.

Presentation and Self-reflection on the Project:

A questionnaire was prepared for students to reflect upon the decisions made during their projects from which they had to choose questions of significance and justify their choices in an extempore manner. This exercise was conducted to understand the thought process the students went through during each step of the learning journey.

Each school group presented their project and then addressed the relevant questions in the form of a chart. They were given the liberty to represent their answers in any form they liked. This session was facilitated by Dr. Shriji Kurup, Ms. Janki Teli and Ms. Chintan Purohit.

This exercise helped the participating groups to understand the various kinds of projects that could be undertaken in a given area and



Students interacting with Shri Kartikeya Sarabhai at CEE - GCS student workshop



Students presenting their projects at the workshop

the various approaches that could be adopted for a similar problem in different areas. For example, one school could go forward with the mangrove plantation on their project site with the help of the Forest Department while the other could not. Owing to this exercise, both the schools now know what problems can arise on the field and ways to tackle them.

The most common questions answered during this session were about the other projects that could have been undertaken if the students had more resources in terms of time and money, and the issues faced in implementing the project. The most common emotion was disappointment owing to the lack of support from local communities citing various reasons.

The session also helped in analysing methods undertaken in implementation of the projects and helped determine that CEE's intervention at community level might prove to be of greater significance than earlier estimation.

Social Justice Session and Interaction with German students: The GCS students from Gujarat interacted with German students on Social Justice Issues and treatment in India and Germany on February 11, 2015. Mahatma Gandhi International School, Ahmedabad also participated in this session. The students of all the five schools were divided into four groups, ensuring that each group had at least one student from each school, and these groups interacted with four student groups in Germany. The German students were from the school Gymnasium Marianum from Warburg. The session was an idea of Earth Charter in Germany and was facilitated by them in Germany. The session in India was facilitated by Ms. Purvi Vyas, Ms. Annie Gregory, Ms. Shweta Kaushik, Ms. Janki Teli and Ms. Chintan Purohit.

The students were briefed prior to the interaction, regarding the concept of social justice and also some basic social justice issues in India, which was coordinated through an interactive activity by Annie and Shweta. They formed four groups of students with one student from each school in each group. They were given a story: There were eight people on a deserted island - Prime Minister, fisherman, a child, a woman, an old man, factory owner, a labourer and a handicapped person. Now there were only three guavas which had to be divided amongst all eight of them; how should they be divided? The students were asked to think about this case and then give their opinion, thus helping them with the basics of social justice.

Each student group consisting of four to five students then interacted with the German group.

The main points of interaction were as follows:

1. Is there gender discrimination in India and Germany?
2. What role do citizens play considering government schemes for the poor and needy?
3. Is there any racial discrimination in India and Germany?
4. Is there any discrimination based on:
 - o Ethnic groups
 - o Sexual preferences
 - o Skin colour
 - o Religion

1.5.6 ICT Tools

The session on Information and Communication Technology Tools was

conducted to make the students aware of tools that are freely available and can enhance their project reports. The session cleared their ideas about latitudes, longitudes and global positioning system. The idea of Geotagging was introduced. An app (GeoCam Free) that helps capture images along with the geographical position of the place was introduced to them which would help them to authenticate their reports. The students were given a demonstration of the same and a task to capture images using this app. Later, graph-formation in MS Excel was demonstrated with important points to keep in mind. The entire session was facilitated by Ms. Shefali Atrey.

1.6 ESD Rice

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

The overall objective of the project is to promote school- and community-based ESD practices in Asia and the Pacific by building an international collaborative network of the ASPnet. The immediate objective is to nurture and link:

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

Activities during the year: Subsequent to the international workshop held in Ayutthaya, Thailand, during December 2013, nine schools from Andhra Pradesh, Kerala and Tamil Nadu were selected to participate in the project. To orient the schools to the project and to prepare the school level plans, a workshop was organized in Bangalore on May 27-28, 2014 in which the teachers who were coordinating the project in the schools participated. The first day was spent in orienting the teachers on ESD concepts, as well as the objectives, expected outcomes and timeline of the project. The second day was devoted to preparing the school level plans. The teachers decided on a theme related to rice for focusing the project activities and prepared a detailed plan in consultation with their respective team/ Headmaster/Headmistress. The plans were presented to the group who gave feedback and changes were made as required to fine tune them. Care was taken to ensure that the schools chose a theme based on their location and interest of their team. The project activities kicked off in schools soon after this in June 2014.

The participating schools and the themes chosen by them are given in the Table.

Participating Schools, their Locations & Themes Chosen

| <i>S/no</i> | <i>State</i> | <i>School & Location</i> | <i>Theme Chosen</i> |
|-------------|----------------|---|---|
| 1 | Andhra Pradesh | BV & BN High School, Jandrapeta, Prakasam District | Cultivation of Rice Using Traditional & Modern Methods |
| 2 | Andhra Pradesh | MPP UP School, Narnepadu, Muppalla, Guntur District | Best Practices in Rice Cultivation |
| 3 | Andhra Pradesh | ZP High School, Muthukur, Nellore District | Traditional Cultural Practices Related to Rice & Nutritional Value of Traditional Rice Dishes |

| <i>Sl no</i> | <i>State</i> | <i>School & Location</i> | <i>Theme Chosen</i> |
|--------------|--------------|--|---|
| 4 | Kerala | CKNS GHSS, Pilicode, Kasargod District | Cultural & Traditional Practices Related to Rice and Their Relevance |
| 5 | Kerala | Jawahar Navodaya Vidyalaya, Vythiri, Wayanad District | Scientific (Germplasm) Conservation of Traditional & Modern Rice Varieties |
| 6 | Kerala | Kuthuparamba High School, Thokkilangadi, Kannur District | Cultivation of Rice & Study of Biodiversity in Rice Farms |
| 7 | Tamil Nadu | GHSS, Athanur, Rasipuram, Namakkal District | Traditional & Cultural Practices Related to Rice in the Hills and Plains |
| 8 | Tamil Nadu | NSVV Boys HSS, Pattiveeranpatti, Nilakottai, Dindigul District | Study of Nutritional Values of Rice, Traditional Varieties & Consumption Patterns |
| 9 | Tamil Nadu | Zamindar HSS, Thuraiyur, Thiruchirapalli District | Best Practices in Rice Cultivation |

During September 3-6, 2014, a second International Workshop was organized in Malang, Indonesia, with the objective of reviewing the progress of the project, and promoting interaction among the schools. The team from India consisted of the Project Coordinator from CEE and two teachers from Andhra Pradesh and Tamil Nadu. The workshop reviewed ESD concepts and introduced to the teachers the HOPE framework which can be used to evaluate the effectiveness of the project activities. Three themes were chosen during the workshop which the schools would go back and conduct research on. The school teams would then interact with their counterparts in the other countries to share their learnings from the project. This was intended to promote international cooperation and interaction among the participating schools. The themes chosen were: Genetically Modified Foods, Our Future City

and Rice & Water. The workshop also included a one day visit to a participating school in Malang to learn from their project activities, a visit to an organic orchard and a heritage hotel.

The project activities continued in the respective schools and the state coordinators visited them to review the progress and participate in the activities. Some of the school teams interacted with their peers in other countries over skype and all of them posted updates on Facebook in a page initiated for this purpose. This promoted interaction and cooperation among the participating schools in the various countries.

The activities were completed by end of December 2014 and the final reports submitted by schools in January 2015. Each school held an exhibition to showcase their activities and outcomes to the community. The exhibitions

highlighted the high level of support the project had received from local governments, research and higher education institutions, parents and other interested groups. The local newspapers and TV channels had covered the project activities in each location.

During January 26-31, 2015, the Programme Coordinator of ESD Rice at ACCU, Ms. Miki Saito visited India to monitor and evaluate the project at the school level. She, along with the CEE Project Coordinator and the respective state coordinators, visited two participating schools in Nellore (Andhra Pradesh) and Trichy (Tamil Nadu). She held discussions with student teams, teachers, management, parents and representatives from local institutions, organizations and government departments, with a view to understand the impact of the project, especially on the community. She also made a brief presentation on ESD to the school teams and teachers. Feedback was also sought from the schools regarding the conduct of the project and how it can be improved.

Subsequently, she also met with the state coordinators and the Project Coordinator to understand the various aspects of the project and the themes and activities undertaken in each school.

Conclusion: The schools had participated very enthusiastically in the project and conducted the activities planned by them. Each school had something unique to showcase from the project: a film on the traditions and practices related to rice, agricultural songs learnt from farmers and tribals, traditional methods of processing rice, preparing more than 25 traditional rice dishes and understanding their nutritional values, conserving seeds of about 750 varieties, a booklet on rice cultivation, and so on.

1.7 Yuva Paryavaran Leader Programme (YPL)

Understanding the critical role of students in motivating their own school, neighborhood and larger society to bring about change for Sustainable Development, CEE North in collaboration with Uttar Pradesh Pollution Control Board (UPPCB) has launched the pilot phase of the state level Yuva Paryavaran Leader programme in July 2014.

This programme is envisaged to enlist enthusiastic, self motivated and environment friendly students and guide them to identify an environmental problem/issue which pinches them the most and which they would like to solve through their own efforts, and to mentor them in implementing their desired action project. Students of Uttar Pradesh studying in classes 8-11 and in the age group of 13-17 years residing in the state and who are ready to bring about a change in their immediate environment are eligible to participate. Following a process of selection (online test, submission of essay and a project action plan) at the state level, a smaller group of students would be selected as potential *Yuva* Leaders.

Announcement of Programme: On July 14, 2014, an advertisement was carried about the programme in *Dainik Jagran* in Hindi and in Times of India in English. This received good response from several districts of UP in the form of registrations. CEE developed YPL brochures in Hindi and English in consultation with UPPCB, with the objectives and process of the programme, which were then mailed to schools and key partners.

As one of the objectives of the YPL programme was to promote online interaction and e-learning amongst students, a web page was

developed in Hindi and English, where schools and students could also learn more about the programme. A Facebook page was also created to directly interact with the students and clarify their queries. Email was also used for the promotion of the programme.

Registration and Online Environment Test:

An online environmental test was conducted by CEE which was step three of the seven step selection procedure. This test checked the basic knowledge of the students about environment and sustainability. About 198 students participated in the online test and 177 students qualified for the next round.

The next step for the selected students was to submit a letter and an action plan. The students had to write a letter to the state s Chief Minister regarding three environmental issues that they have observed in their surroundings, i.e. their schools/locality, and an action plan that they will be implementing in their locality/school to mitigate one of them. About 106 students submitted their entries for this round. Over 70 students qualified for the next step of telephonic interview. The shortlisted students were assigned a time during which CEE team spoke to each of them to gauge their understanding about programme and their ideas on how to implement their action plan if selected. The students showed a good understanding of the environmental issues and were willing to take the lead to mitigate the problem in their locality.

Yuva Paryavaran Leader Summit: CEE North and UPPCB jointly organised a state level *Yuva Paryavaran* Leader Summit in September 2014 at Lucknow. This programme envisaged short-listing enthusiastic and self motivated students who are keen to find solutions for environment concerns. About 50 students had qualified for this step from 21 schools as

potential *Yuva* leaders. The main objective of the summit was to provide orientation to this state level cadre of young students who would in turn implement action projects in the area of sustainable development. Around 40 young and dynamic students (from 21 schools), 20 proactive teachers, and two parents of the selected young leaders from 11 districts of Uttar Pradesh participated in the programme.

The five day summit was inaugurated by the chief guest Shri V. N. Garg, Agriculture Production Commissioner and Principal Secretary, Environment and Forests, UP Government. During the five days, these young leaders got an opportunity to interact with experts working in the field of environment and sustainable development.

Guidance to Students: In order to facilitate and mentor the students with their projects, representatives from CEE North visited schools located in Varanasi, Allahabad, Pilibhit, Faizabad, Etawa and Lucknow. These visits, undertaken during November -December 2014, enabled the team to assess the status of the action projects being implemented by the students and also to help them resolve the issues that they faced.

Video Documentation: A documentary of 11 minutes has been prepared on the initiatives of the *Yuva Paryavaran* Leaders. It focuses on the actions, experience, difficulties and learning of some of the students during their projects. Perspectives from some of the parents, teachers and Principals have also been included in it, on what they feel about their children working as *yuva* leaders and what changes they have seen in them. The movie was shot in the schools and communities in different districts of Uttar Pradesh during a month long schedule.

Recognition: *The Better India* is an e-magazine which has five lakh subscribers and is followed by one lakh people on social media. It publishes positive stories involving unsung heroes whose efforts have led to big or small changes in society. Stories of some of the *Yuva Paryavaran* Leaders have been shared with the magazine and one story of YPL Prachi Rawat - was published in *The Better India* on March 16, 2015.

On the occasion of World Sparrow Day, two *Yuva Paryavaran* Leaders of La Martiniere Girls College, Lucknow and Kendriya Vidyalaya, Gomti Nagar, Lucknow, were invited to the Chief Minister's (CM) house. These students had a brief interaction with the Chief Minister Shri Akhilesh Yadav, after which they, along with the Hon'ble CM, set up nests for sparrows at his house.

Yuva Paryavaran Leader Awards Ceremony: *Yuva Paryavaran* Leader programme, the joint initiative of CEE and UPPCB, after completion of its six step selection process which started in July 2014, identified the 10 Best Students, five Best Teachers and five Best Schools at the end of the programme. The winners were felicitated in the state level *Yuva Paryavaran* Leader Awards ceremony held on March 21, 2015 on the occasion of World Forestry Day.

The chief guest of the event was Shri Fareed Mehfuz Kidwai, State Minister of Forests, Uttar Pradesh and the chairperson was Dr. S.P. Yadav, Minister of State for Wildlife, Uttar Pradesh. Shri V. N. Garg, APC and Principal Secretary, Environment and Forests was the special guest for the event.

During event, winning students, teachers and schools were awarded with medallions and

certificates by the guests. The participants were also provided with an educational resource package by CEE. The event was attended by more than 200 participants including students, teachers, principals, parents, key dignitaries, forest department officials, media and others.

1.8 Young Masters Programme (YMP) on Sustainable Development

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 network. YMP is an international, online educational programme 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. The formal launch of the pilot phase in India took place on October 14, 2012, during the ESD Conference organised by CEE as part of the Convention on Biological Diversity COP 11 in Hyderabad, India. CEE team began its implementation with an internal workshop where CEE North acted as secretariat for the programme. At each location, teachers orientation was conducted for initiating the programme.

During 2014-15, 11 schools with 35 student groups from six cities joined the programme and are actively pursuing the course.

1.9 Eco-Schools Programme

Eco-Schools Programme is a global sustainable schools programme which is being implemented in about 60 countries. 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 underway and three schools have started the implementation of the programme. This includes a school in Tamil Nadu too.

Lucknow

CEE North team publicised the international eco-schools programme among schools of Lucknow. One school joined the programme in 2014, for whom an orientation session for teachers was conducted by CEE team. The teachers from primary section were oriented to the components of the programme. A school committee was formed to conduct activities as part of the programme.

The teachers were guided to conduct an environmental review of the school campus covering five thematic areas: water and sanitation, biodiversity, waste management, energy, health and hygiene. Based on the survey results, CEE team facilitated the development of an environment action plan in three thematic areas: the school selected waste management, water and biodiversity as areas for them to work on.

1.10 Swapnilshala

Anandshala project aims to facilitate development of school of joy, a model school for holistic development of the child, through

participatory visioning exercises, local capacity building and provision of support in terms of financial and technical resources. It correlates formal education with life skill activities and strengthens the existing institutions for a child friendly school environment. Anandshala, a whole school development approach, was developed by CEE Rural Programme Group in partnership with UNICEF in Gujarat in 2003 and since then has been used as a model and methodology for education by various stakeholders in different states.

Addressing the issue of migration, the Anandshala approach has been adapted as Swapnilshala and is being implemented by CEE West with the support of Ashiyana Housing Limited at the Government UPS, in Ghatal, Bhiwadi, which is an industrial hub of Rajasthan and suffers from the problem of migration. Migration - short duration or long duration - affects children's education. Ideally, children should get enrolled wherever their parents have migrated. But as they are a scattered population, it is difficult to keep track of them from their home village. These families stay on a location for a long but uncertain duration and move often taking their children along. These non school going children are also an extremely vulnerable group. With a child specific intervention to mainstream him/her, Swapnilshala project entails assurance of process quality and results in the development of a model that can be replicated by education departments and governments for achieving the goal of education for all.

The objectives of Swapnilshala project are:

- To create a conducive physical environment by improving existing school infrastructure facilities for quality

education in the government primary schools of the project area

- To initiate a process of upgrading the quality of education through tools, techniques and strategies to capacitate educational functionaries for effective quality education
 - To create multiple levels of engagement amongst stakeholders in a school context (community, school management, allied institutions, government departments) to facilitate a better quality of education through adopting and supporting Swapnilshala on a long-term basis
- To create a model for mainstreaming non school going children

Activities conducted under the Swapnilshala project in 2014-15 are as follows.

- A two day visioning workshop was organised with students, teachers, members of school management committee of GUPS, Ghatal and villagers at Bhiwadi in February 2015. The aim of this participatory exercise is to create a common vision for the school. It provided an opportunity to involve various stakeholders of the school in planning and implementation, defining roles and assuming shared and individual responsibility.
- To identify the non school going (NSG) children, a survey form was developed for collecting data through a survey in the area. After compiling and analysing the data, 46 NSG were identified. A special training programme will be organised for these NSG, to facilitate them to join the mainstream in the next academic session.
- A 15 day long Fun Science - learning by doing workshop was organised for

students of classes 6-8. The workshop covered four areas of their science textbook - biodiversity, waste management, water and physics (magnetism, electricity, etc.). Both teachers and students were benefited from it. During the workshop, learners were engaged in tasks helped convert abstract ideas into concrete ones. The workshop also made the teachers understand the importance of engaging students in activities during class rather than making the class teacher centric where teacher takes the lead role.

- Two issues of a school level handwritten newsletter were developed by the students, with editing support from teachers. The objective of developing such a newsletter was to improve the observation, writing and communication skills of the students. The newsletter was sent to state government officers, district education officers, block education officer, district collector, parents of the students, community members and members of the school management committee.

1.11 Clean Hussain Sagar Campaign (HSL)

CEE AP implemented the Clean Hussain Sagar Campaign with the support of the Hyderabad Metropolitan Development Authority (HMDA) in 70 schools located in the HMDA jurisdiction. The objective of the programme is to create awareness among students on the importance of lakes in urban areas, and Hussain Sagar in particular, 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 components of the programme include

two hours of 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 school showing best Performance.

The annual event was organised on March 22, World Water Day, in Sanjeeviah Park. Around 200 students participated in the event in which 10 schools were awarded as Best HSL School for the year 2014-15.

1.12 Conservation Education Programme in Rural Schools of Cauvery Wildlife Sanctuary

With support from Karnataka State Ecotourism Development Board, CEE Karnataka, in collaboration with Cauvery Wildlife Sanctuary, initiated the Nature Conservation Education Programme for teachers and students from rural schools situated on the fringe areas of the Sanctuary. With an aim to sensitising them on nature, forests, wildlife and conservation, nature camps were organised for them. During this, participants explored the surrounding forest and wildlife and interacted with the field staff of the forest department on their efforts for conservation. Sessions on forest and wildlife related topics were conducted which were followed by hands-on activities. In all, 18 camps were organised covering about 600 participants. Students and teachers were provided with a kit comprising of teachers manual on nature conservation, an activity booklet on nature conservation for students, a writing pad and a pen.

Taking into account the success and relevance of this programme for rural schools, the state government has initiated a programme titled *Chinna Vanya Darshan* where every class 9 student in the rural schools of the state would

spend two days in the forest areas. CEE has been recognised as the knowledge partner in this endeavour.

1.13 School Programmes in Maharashtra

1.13.1 Western Ghats Special Eco-club Scheme (WGECS)

CEE Central is implementing this scheme supported by the Environment Department, Government of Maharashtra since 2011. This initiative under the centrally sponsored scheme of Western Ghats Development Programme of the Planning Commission experienced extraordinary delay in grant release due to a review of the overall programme by the Central Government. CEE submitted a three year achievement document which was appreciated by the Environment Department. Since annual trainings could not be held and school grant too not released, efforts were made by the project team to remain connected with the schools and motivate them to continue locally possible actions through field visits related to *Shrusti Mitra Awards*, communication through emails and social media.

Some of the highlights of the activities this year are described below.

Seed collection and nursery technique experiments: Through extensive field work across the Western Ghats region in the state, seeds of 57 local and endemic plant species were collected and packaged for distribution to the schools, university and nurseries. Experiments on nursery techniques were carried out on land made available by the Public Works Department Nursery in Pune University Campus. Seeds of fifty seven species were used in the experiments to understand appropriate seed treatments and germination

time. A booklet is being developed with details of the nursery techniques.

Celebration of Western Ghats Fortnight: The theme chosen by the schools for this was Western Ghats and Water. The State Government has identified the first fortnight of July as Western Ghats Fortnight to mark its recognition as a World Natural Heritage Site. Nineteen schools conducted activities such as mapping water sources in their villages, visits to rainfall measurement centres, exploration and conservation of natural springs, construction of *Vanrai bandhara*, awareness rallies on pesticide pollution of water and its effect on biodiversity, seed dispersal and plantation of local trees alongside water streams, etc. A study of fish diversity in local water bodies generated a checklist of 27 fish species and three crab species in five districts.

1.13.2 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 hands-on activities and 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 is the state nodal agency for the scheme, which 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. During 2014-15, a process of developing participatory Environment Status Reports (ESR) for villages

was developed with the ESS schools. The activities taken up in the year include:

- Over 70 teachers from six administrative divisions participated in orientation programmes and were trained on developing participatory ESRs
- 46 special camps of one day duration were organised for ESS units
- 40 Environment Status Reports of villages were developed by ESS units
- 18 ESS units presented their findings in village level meetings and *Gram Sabhas*; this has also led to organising *Mahila Sabhas* for the first time in the history of the village

1.13.3 Srushti Mitra Awards

The Srushti Mitra Awards have been instituted by the Environment Department, Government of Maharashtra in 2010. The Awards aim to promote environment awareness among people and students and encourage them to take up actions that benefit the environment. The objective of the award is to recognise and acknowledge the efforts and actions for raising awareness about and conservation of the environment undertaken by school and college students, youths, women, teachers, educators, authors, writers, photographers, experts and individual citizens. On behalf of the Environment Department, CEE is managing the implementation of the award since its inception.

The 4th edition Srushti Mitra Awards 2015 was launched, and entries invited from all over the state under eight categories from students and the general public. The categories for the Awards are as follows:

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- 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

Reaching out to the remote parts of the state for disseminating information about the Awards was a challenge. Different media were used to provide publicity to the Awards, especially to seek participation from the rural parts of the state. Different sets of communication materials were developed and disseminated through various modes and channels for the publicity of the Awards. These included advertisements in newspapers, sending communication packs to around 7000 schools and colleges covering all the districts of the state, advertisement for women s category in women s magazines, leaflet insertion in the newspapers of ten selected remote districts.

Special sessions were conducted on the Award in more than 300 schools and colleges, linking it with other school programmes being implemented by CEE Central. These sessions were planned as orientation workshops for students where they also prepared their entries for submission. Publicity events were conducted in about 20 districts and talukas. Sessions were also conducted on invitation at other events like teacher trainings for dissemination. Website and Facebook were also used for the outreach. More than 8000 entries were received in the eight categories of

the Award which are being scrutinised and evaluated. The best entries from these will be selected for the Awards and the winners will be felicitated in a state level event by the Environment Department.

1.14 Create to Inspire School Programme

The Create to Inspire School Programme in Ahmedabad was initiated in partnership with Microsoft and GIZ, with a vision to create awareness on sustainable consumption patterns amongst school students. As an implementation partner, CEE is engaging schools by taking them through the transformative learning pedagogy of project based learning.

CEE has so far capacity built 155 teachers and 37 principals from 120 schools on various themes of sustainable consumption. With 46 schools actively participating in the programme, various activities such as e-waste knowledge survey amongst the citizens and e-waste collection drive were conducted, wherein 25 schools collected over 2.8 tons of e-waste.

A literacy test was conducted to understand the impact of the programme in terms of knowledge, attitude, competency and disposition. From the pre and post survey it was understood that there was an increase in literacy levels in all five schools after the programme. It has also been noticed that there is an urge to make a difference in their consumption patterns. Students are aware about their role as today s citizens and how they need to take the right action and pick right.

A felicitation event was organised on Earth Day April 22, 2015, to appreciate the teachers

commitment throughout the programme and encourage continuous engagement over the next academic year.

1.15 Urja Chetana: An Environment Sustainability Education Programme in Schools of Kolkata and Nearby Districts

The Waste Management Group at CEE Kolkata is implementing the *Urja Chetana* programme in 30 schools in and around Kolkata, supported by Calcutta Electric Supply Corporation under their CSR programme.

The *Urja Chetana* programme seeks to generate awareness and action on various aspects of environment amongst students, who would carry the learnings to their communities. This programme also 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 improve the environmental scenario of the region.

Under the programme, in the reporting period, five hands-on training programmes for students and teachers have been conducted focussing on composting, waste paper recycling and water harvesting at school level. Detailed energy and waste audits have been conducted in the participating schools. Composting and waste paper recycling starter kits have also been provided to 20 schools to initiate the same on their premises. Through regular composting and paper recycling, around 159 kg of food waste and 31 kg of paper waste has been recycled and diverted from going into landfill.

The schools have thus been contributing in their own small way to mitigation of climate change impacts. Rain water harvesting structures have also been installed in two schools for conserving water and using it for sanitation, cleaning and gardening purposes. Students have been taken on exposure visits to a thermal power plant and composting unit to synergise their classroom knowledge with practical experience. Various competitions and community outreach activities have been conducted under the programme to spread the awareness gained by the students beyond the school. The community awareness/campaign conducted on World Environment Day, June 5, 2014, led to direct awareness generation of around 516 community members through interaction with students. IEC materials on waste management and plantation guidance have been developed under the project.

1.16 PCRA National Level Painting and Essay Writing Competition

CEE, in partnership with Petroleum Conservation and Research Association (PCRA), implemented a National Level Painting and Essay Competition on the theme of Energy Conservation, all over the country. CEE Delhi was the project secretariat for the project as well as implemented it in Delhi. The competition was announced in October 2014 and competitions were held over a period of two months. The essay competition was held in 13 languages: English, Hindi, Assamese, Bengali, Gujarati, Kannada, Malayalam, Marathi, Oriya, Punjabi, Tamil, Urdu and Telugu.

Over 135 events were conducted by CEE in as many as 170 schools. Students with the best

painting and essay writing entries were felicitated at the National Level Award Ceremony in New Delhi by Shri. Dharmendra Pradhan, Hon ble Minister for Petroleum and Gas. The competition reached out to almost 25000 students.

1.16.1 PCRA Painting and Essay Competitions in UP and Bihar

As part of *Paryavaran Mitra* and NGC programmes, CEE North, in collaboration with Petroleum Conservation and Research Association (PCRA), had organised painting and essay writing competitions in Uttar Pradesh and Bihar. Over 600 students from five districts of Uttar Pradesh participated in the competitions, which were based on the theme of conservation of oil and gas. The students also had the liberty to share their views in their regional languages which made it easier for them to express themselves. The essay entries were received in English, Hindi, Urdu and Punjabi. In Bihar the PCRA competitions were conducted with the help of partner organisation *Gram Pragati* and over 500 students participated from West Champaran district; entries were received in Hindi and Urdu.

1.17 Earth Reel 2014

CEE Delhi conducted Earth Reel 2014, an environmental film making competition for students from schools in Delhi and NCR region. Over 200 students participated in the competition and came up with innovative ideas and solutions for creating Green Cities. Various thematic areas from which the students could choose to make a film on were:

- Efficient energy use

- Water conservation
- Pollution control
- Cleaner and improved public transport
- Waste Management
- Greening urban spaces

The films were received under two categories: Public Service Announcement and Short films. More than 50 entries were received over a span of three months and these were screened through a peer review process to select the best 10 entries.

The best 10 entries were screened at a jury on December 4, 2014, at a city level event held at the National Science Centre, New Delhi. The 10 finalists were asked to present their films and the jury questioned them on the issues covered in their work.

As a part of the event, a panel discussion on *Civic Engagement for Green Cities* was also organised on the same day. Speakers included Kartikeya V. Sarabhai, Director, CEE; Kathleen Rogers, President of Earth Day Network, USA; Karuna Singh, Country Head, Earth Day Network; and Naresh Bedi, Environmental Film Maker and Green Oscar Winner.

The event culminated with an award ceremony where three best films were awarded in each category; a best school trophy was also awarded.

The project was implemented by CEE in partnership with Earth Day Network and involved sensitisation workshops in schools on the theme of Green Cities, where children were also introduced to the medium of film making as a tool for communicating environment.

2.1 Journal of Education for Sustainable Development (JESD)

JESD, 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.

During the reporting year, two issues were brought out ~ 8.1 and 8.2. JESD 8.2 was a special issue that coincided with the events marking the end of the Decade of Education for Sustainable Development (DESD). Eminent thinkers and experts on ESD contributed opinion pieces on DESD which focused on reflections on the Decade and the way forward. Copies of this issue were made available at Nagoya during the end of DESD conferences.

2.2 Regional Centres of Expertise (RCEs) - Lucknow

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

ESD through Mobile Exhibition on Biodiversity

RCE Lucknow's initiative of Mobile Exhibition on Biodiversity was shortlisted from among 27 entries for the RCE Awards which were instituted to provide global recognition for ESD initiatives. RCE Lucknow received the

certificate of honourable mention in the category of Curriculum-based Transformative Learning and Research Processes. The Mobile Exhibition on Biodiversity has been developed for Uttar Pradesh with the help of formal education institutions like University of Lucknow and non formal institutions like UP State Biodiversity Board, Education and Forest Departments, schools, scientific institution, Lucknow Zoo, etc.

2.3 Environmental Studies course – Ahmedabad University

CEE designed and offered an Environmental Studies course to undergraduate students studying 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) at Ahmedabad University. About 150 students participated in this course with a total of 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 the case of BKMIBA, and ICT and Sustainable Development in the case of IICT, was offered which helped in improving the students understanding about linkages between their area of studies and sustainable development. Students did course-end projects on ten themes related to campus sustainability. This enabled them to implement the learnings from the four modules and gain hands-on experience while trying to address sustainability issues of their institution/campus.

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

CEE and CEPT University, in cooperation with UNESCO, the Swedish International Centre of 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 four years, with Shri Kartikeya V. Sarabhai 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 following courses in partnership with CEPT University and other partners.

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

This course developed by CEE and Sustainable Urban Mobility Network (SUM Net) in partnership with CEPT University, is on sustainable transportation, with a special focus on participatory street design. The course which was initiated in 2013 was well received and when announced in 2014, was over-subscribed. The 2014 version of the course was organised with 50 students from UG and PG courses of all faculties at CEPT University.

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

This course (May 17-26, 2014) 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 in the field.

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

This course (one week in May 2014) was offered as a part of the CEPT University's Summer School Programme to post graduate students. It introduced students to the basics of biodiversity, and helped them 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 helps in its conservation and coexistence in urban areas.

2.4.4 *CEPT Winter School 2014: Designing with People*

The course was offered by CEPT University and CEE as a part of the Winter School 2014 to post graduate students of Architecture, Urban Design and Landscape. It introduced students to participatory design tools and techniques for revitalising the core city areas. Students undertook studio projects to envision these areas from a sustainability point of view.

The UNESCO Chair activities were shared through a poster exhibition at the PLEA conference held at CEPT University in December 2014.

3.1 South Asia Youth Environment Network (SAYEN)

SAYEN (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, the United Nations Environment Programme (UNEP) 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, in Ahmedabad, India, 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. SAYEN has a membership of over 50000 individuals and organisations. UNEP's Regional, sub-regional and National Youth Advisors support the SAYEN secretariat at CEE in planning and implementing activities in the region. For youth, this gives them the opportunity to hone their leadership skills, and for SAYEN, a rich pool of young creative individuals.

3.1.1 Sustainable Campus Initiative – SAYEN Clubs

Sustainable Campus Initiative, a SAYEN endeavour which has a vision to turn college campuses all over India not just eco-friendly but completely sustainable, was initiated with two colleges from Ahmedabad participating

in the pilot phase: H L College of Commerce (HLCC) and M G Science Institute.

HLCC Eco-buddy Club: The official launch of the HLCC SAYEN Eco-buddy club conducted many activities planned by the students ranging from a street play to speeches from seniors and faculty members. The students also participated in a march conducted by club members to raise awareness.

International interns from Wageningen University, Netherlands, as a part of their internship with CEE, worked with the HLCC SAYEN Eco-buddy Club members on their action plan and the event. They developed an online version of the SAYEN Club manual for the SAYEN Secretariat.

M.G Science College: Around 5000 students welcomed the New Year on January 1, 2014, with a Green Dayf. Every student, faculty and the Principal used public transport or bicycle or walked to college that day!

As part of the initiative, the students took an oath to follow traffic rules. The students union, along with other students, cleaned their respective departments and carried out a plantation drive with indigenous species. The students have adopted these plants to look after them.

On January 23, the Botany Department organised a state level workshop on Biodiversity, for teachers and research students, with a grant from the Gujarat Biodiversity Board, Gandhinagar. Eminent scientists and officials from the Biodiversity Board presented their views and thoughts as well as work in this field. More than 200 delegates participated in this workshop.

3.1.2 Safe Holi Campaign

SAYEN, every year organizes the Safe Holi Campaign to not only make people aware about the wastage of water and health hazards caused by the harmful chemicals used to prepare some of the colours but also to orient them about safety measures and eco-friendly colours.

This year, a three day campaign was organized by CEE along with HB Kapadia High School, Memnagar, Ahmedabad from 10 March, 2014 to 12 March, 2014 for creating awareness regarding the hazardous effects of chemical colours and encouraging the use of natural herbal colours during Holi.

Interns with CEE helped organize the campaign and interacted with children at the school, talking to them about health hazards of chemicals used in some of the colours and requested them to minimize water wastage during their celebrations. The children learned from the interns and treated them as mentors. The response re-emphasized the importance of youth playing a leadership and mentoring role for school children, something SAYEN has always been an advocate of!

3.1.3 SAYEN Afghanistan organises workshop on dangers of drugs

Youth volunteers from Afghanistan organised multiple workshops in their country in order to raise awareness amongst Afghan Youth about the dangers of drugs and motivate them to stay away from the deadly substances. Supported by Rehabilitation and Development Services for Afghanistan (RDSA), the events were organised throughout April, with a two day workshop being held every week from April 1-30. Over 120 young participants, both

male and female, participated in these workshops.

The youth were divided into working groups and encouraged to discuss the various dangers of drugs. Facilitated by mentors and resource persons, these sessions resulted in some very important recommendations by the youth. Apart from drugs, reproductive health issues of the youth were also discussed in the workshops inaugurated by the Deputy Director of RDSA, who also thanked the participants and the SAYEN team for their enthusiasm and efforts to address this issue.

3.1.4 Nature Conservation Pledge Day

Prakriti Sanrakshan Sankalp Divas (Nature Conservation Pledge Day) was organised across India in memory of the Uttarakhand tragedy which took place at midnight, June 16 last year, to remember those who lost their lives on that fateful day, to reflect upon the environmental reasons behind it and what could be done to avoid such disasters in the future. Organised by CEE with the support of National Mission for Clean Ganga (NMCG) and the Central Water Commission (CWC), the *Sankalp Divas* saw great participation from youth at all the 10 locations across the country where it was held, namely, Gangotri, Haridwar, Allahabad, Kanpur, Varanasi, Patna, New Delhi, Nabdeep, Farakka and Ganga Sagar.

At Varanasi, the help and support of volunteers from the Benares Hindu University (BHU) ~ all SAYEN members ~ made the event a great success. The day s activities started in the morning with a painting competition organised for students from DIET (District Institute of Education and Training), which focused on positive actions from human beings to avoid such disasters in the future. Over 200

students participated in the event and the winners were given their prizes in the evening by the special guests present at the *Sankalp Divas*.

The evening programme began with a welcome address where the speaker also talked about the disaster, our role in it and how sustainable development could be the answer to this problem. Thereafter, all the participants observed silence for one minute in memory of those who lost their lives in the tragedy. Students from the Panini Mahavidyalaya performed Mangalacharan to mark an auspicious beginning for the programme. Subsequently, the guests addressed the gathering, discussing various aspects of the tragedy from environmental to social implications and also forecasting, which could play a major role in avoiding such disasters in the future.

Recapping all the opinions, the speaker again reiterated the importance of sustainable development and asked all the participants to take a pledge to conserve nature and not to repeat our mistakes. All participants were handed *diyas* (lamps) by the volunteers; the pledge was taken with *diyas* in hand, which were then placed in front of the pledge wall. The painting competition prizes were given away and a vote of thanks from the local NGO partner representative concluded the event.

3.1.5 Handprint Challenge: Sustainability Challenge for Colleges in Asia-Pacific

Supported by UNEP, the Handprint Challenge aims to promote 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 were given a seed funding of up to USD 750 each (upto USD 750 for preliminary qualifiers and an extra USD 500 for final winners), to implement their action plans and carry out sustainability activities on campus. The reports from these teams were uploaded and updated regularly on SAYEN s website and other social media platforms. After a jury process, five teams were selected and awarded the Handprint flag in a ceremony hosted in Ahmedabad in February 2015.

The Challenge drew a lot of attention from the region and the SAYEN Secretariat received numerous queries and applications from colleges in the Asia-Pacific. Considering the fact that this was the first time that SAYEN was venturing outside the South Asian region, the amount of entries received from countries outside South Asia, like Philippines, Vietnam, Malaysia and Indonesia were quite a confidence boost and added to the quality of the challenge. Twenty teams were selected as challenge finalists after the first round of judgment by our international jury, which was a mix of youth and experience from different parts of the world. Nineteen teams finally completed the challenge and five were selected as winners. The reports on the award winning projects and the progress made by them during the challenge are given below.

3.1.5.1 Project name: UpGREEN

University and Region: Caraga State University, Cabadbaran Campus, Philippines

About: The UpGreen project aims to create a positive change by upholding eco-friendly activities for environmental sustainability. It also aims to encourage students to reduce carbon footprints and handprints by shifting

to practices that are environmentally friendly, and making the practices effective enough to influence others in making a difference to the environment. The main goal of this project is to make the Caraga State University - Cabadbaran Campus a Green Model across the region.

Implementation: The team was able to partner with the Central Student Government (CGS) of the institution and integrate UpGreen activities officially in their functions and other services of the school.

In the long run the team members envision UpGreen as a sustainable non-government organisation (NGO) which will take up advocacy to make green actions possible for the welfare of the environment and for humanity.

Guided by UpGREEN's official tagline "We Make Green Things Possible," the project was launched on a grand scale in the presence of partners, school administration, resource speakers from the local government unit and private entity, along with 1400 students from the school. The focus of the launch programme was a symposium about Tree preservation and Climate Change Adaptation-Disaster Risk Reduction.

The following activities were included in their project.

- The team has managed to generate funds from their *Eco Souvenir Shop* which sells customised UpGREEN shirts, pins, eco bags, indigenous materials, and many more items, which is being promoted online. They have managed to reach around 540 people online who are now supporting their cause and procuring goods from their shop.

- The *Eco-Bike Advocacy* was an income generating project to collect or buy junked bicycles which will be remodelled.
- As a part of their programme *Cabadba Run for a Cause*, the team, along with other students, planted trees inside their campus.
- A *Pollution Prevention Program* was held which included a symposium, clean-up drives, nursery and mini forest plantation in and around their campus.
- *Paper Conservation Program* included making paper boxes and recycling paper. Around 300 student volunteers participated in this by bringing used plastic bottles and paper for recycling.

3.1.5.2 Project name

Waste Management and their Economic Utilisation Project

University and Region: Institute of Agriculture and Animal Sciences, Nepal

About: The team proposed to implement a sustainable Waste Management plan in their campus, in view of the growing concern of improper waste disposal there. The project aimed to promote proper waste segregation procedures in the campus, spread awareness about decomposable and non-decomposable waste and utilisation of waste material for educational purposes, along with pollution management and diversity conservation in the college premises. The college had been allocating a huge amount of money to purchase chemical fertilizers and pesticides. To address these issues, they identified two locations for setting up vermicomposting pits and one for a worm rearing pit.

Implementation: The project flagged off with indentifying major locations for implementing waste management activities and two sites for vermicomposting and one for worm rearing. They have managed to route in waste materials from different places on the campus like canteen, hostel, near the front gate and others. They have placed distinguishable painted dustbins for each kind of waste in these locations. A team was recruited to collect these wastes and send them to the pit and other recycling units from time to time.

The following activities were undertaken as part of the project.

- The vermicomposting pit has been successfully constructed inside the campus, with layers of banana stem, leaves, hay, earth and earthworms.
- The rearing pit for earthworms was established in the animal farm and proper maintenance ensured.
- A Facebook group, established for this purpose, highlights all their activities and keeps people updated.
- Segregation of waste was achieved by placing dustbins in distinguishable colours in all corners of the campus and spreading awareness about waste management.
- Cultivation of organic spinach using the compost is being undertaken.

3.1.5.3 Project name

Creation of a Microhabitat for Butterflies

University and Region: Sri Venkateswara College of Engineering, Tamilnadu, India

About: Monitoring biodiversity depends upon indicators . With a short life cycle and high sensitivity to climate and environmental change, butterflies lend themselves as ideal biodiversity indicators. Recent research has shown that butterflies have declined more rapidly than birds and plants, emphasising their potential role as indicators.

Creation of a Microhabitat for Butterflies , aims at sustaining the biodiversity of the campus; the team believes that a butterfly garden will help gain insight into the behaviour and role of butterflies in sustaining natural ecosystems. They can be set up in any location by introducing butterfly host plants and by recreating suitable habitats.

The team has planted both larval and nectar plants so as to provide food and shelter for all the four stages in the life cycle of a butterfly, i.e., egg, larval, pupal and butterfly stages.

Implementation: The team identified a site which had adequate sunlight and shade needed for creating the microhabitat. Along with the plantation they designed a book documenting the butterflies visiting the habitat and also planned an exhibition displaying the photographs of the butterflies.

The park will be a showcase of the biodiversity of the campus, not only for students but also for the faculty and others, to appreciate and learn the role played by butterflies and other insects. It also will help them to demonstrate this as a living example in outreach programmes where children from schools in and around the college can come and learn.

The activities of the project are as follows.

- The team ensured that the proposed site had adequate amount of direct morning

sunlight for six hours which will not only allow the plants to bloom but also allow butterflies to warm up; large rocks, exposed soil, or even pavement are all surfaces that will warm up in morning sunlight and hence were part of the site.

- The site is equally sheltered by trees and shrubs to protect the butterflies from direct wind currents as they try to feed, mate and lay eggs. Additionally, trees and shrubs give valuable shelter where butterflies can roost at night or hide from predators.
- Proper puddling stations such as damp area of ground covered with sand were placed where butterflies could be viewed easily, and are thought to provide additional salts apart from water.
- After the preparation of soil, the team members started collecting data regarding the larval and nectar plants to be sown, based on which they planted around 40 species of plants. Once the garden was established, butterfly feeders and homes were constructed by the team members to attract and provide shelter to the butterflies.
- A survey was conducted to monitor the existing butterfly species and to document them by photographing them. Through this they have identified around 50 species of butterflies in the garden. This has been achieved by establishing a transect (walk) to monitor the butterfly.
- A book was designed to document the butterflies on their campus and later used to spread awareness about butterflies and educating the students about the importance of these species, and help understand insect migration.

- The team's efforts were featured in *The Hindu* on October 24, 2014.
- They held a discussion in their college, addressing about 60-70 students about the importance and significance of their project.
- The team presented their project in the monthly meet held by the Madras Naturalists Society to a gathering of ten to fifteen people.

3.1.5.4 Project name

Developing Entrepreneurship through College Waste Management

University and Region: Tri-Chandra Multiple Campus, Nepal

About: Solid Waste Management is one of the most essential services for maintaining the quality of life in the urban areas and for ensuring better standards of health and sanitation. This service falls short of the desired level, as the systems adopted are often outdated and inefficient. Institutional weakness, shortage of human and financial resources, improper choice of technology, inadequate coverage and lack of short and long term planning are responsible for the inadequacy of this service.

Being one of the oldest and the largest universities in the area, students of Tri-Chandra Multiple Campus, Nepal, took the opportunity to address the issue of Solid Waste Management, starting from their college laboratories and campus. The project intends to develop a Green Youth Entrepreneurship for the students by involving them in the area of laboratory waste management, paper waste management and garden development. The team realised that an effective waste

management system in their college can help them reduce the finances being spent currently in the waste management sector, which could be used gainfully in other important sectors of the institution

Implementation: A research was conducted to identify the kind of solid waste produced in the campus and the practices involved. They identified the following issues:

- The waste from the college is either taken away by the Kathmandu Municipality waste collection system (rarely) or burned by the college.
- The paper waste is burned while the lab waste (mainly broken glasses and chemicals) is buried in the backyard.
- A huge amount of money is invested for solid waste management but with very little success and low student participation.
- The waste generated in the lab and administration was mainly paper, metals and glassware which can be easily reused and recycled.

The following were the activities under the project.

- A suitable site was selected within the campus to grow a garden.
- A cleanliness drive, supported by volunteers and some staff members, was held in order to clean up the campus as well as clear the selected garden site.
- A plantation drive was organised wherein the team successfully planted around 100 saplings at four different sites with the help of 50 volunteers. The drive saw nearly 200 people encouraging and joining the team's efforts.

- The team managed to hold workshops and rallies to demonstrate the dire need for an effective Waste Management System.
- The project promoted a clean and green environment in the college area by resource utilisation, counseling and mentoring supports, skill development training and collaboration and networking with public (Local Government Authorities) and private sector.
- Regular cleanliness and waste segregation activities are being monitored by the team.
- Their activities were regularly being updated on their social media sites.

3.1.5.5 Project name

Site Specific Art Installations to enhance and promote bio-diversity

University and Region: St.Xavier s College, Ahmedabad, India

About: The ecological niches at St. Xavier s College were rich biodiversity enclaves hosting over 800 species of plants and a large faunal diversity. This project attempts to re-establish these niches with a special focus on sensitising the large student body of the college to field botany, conservation and protection. The project aims to achieve this by site-specific installations and artistic engagement, promoting as well as conserving bio-diversity in their campus.

Implementation: The team consisted of students from diverse backgrounds which allowed them to pull in creative ideas and energies to carry out the activity. Taking a cue from field botany, the team documented and mapped the biodiversity in the campus.

The following activities were part of the project.

- The team documented the flora and fauna in the campus, and listed around 387 species of plants existing in their campus.
- Based on this observation and documentation, the team chose sites for art installations.

3.2 EE for Youth - Karnataka

CEE Karnataka partnered with Terre des Hommes (TDH), Germany, as knowledge partner India for organising the 2nd Youth Convention on Ecological Rights held at Bangalore from November 1-3, 2014. Over 84 youth from 13 states and about 1200 children participated in the convention. Deliberations on subjects such as Alternate Energy Resources, Sanitation and Hygiene, Organic Farming, Waste Management, Water Management, Biodiversity and Wildlife, were held as part of this event.

3.3 Internships

As part of Capacity Building Youth, CEE provides internship opportunities to youth on projects and activities related to Sustainable Development. 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.

In 2014-2015, internship opportunities were provided to 80 youth including international students from Germany. The interns were involved in projects such as conducting research and documentation on a variety of topics like waste management and disaster risk reduction; in conducting awareness programmes like Safe Holi Festival Campaign, Mother Earth Celebration, World Environment Day celebration; and projects including one on Zero Waste Campus at CEE.

4.1 Sundarvan – A Nature Discovery Centre

Sundarvan was created in 1978, and is popular for its snake rescue and snake awareness programmes. The facility is recognised as a Mini Zoo by the Central Zoo Authority of India.

Sundarvan received 80528 visitors, including 33413 (41.5%) children and 47115 adults during the period. About 10535 students and 1419 teachers from 209 schools visited during this year.

Reptile Awareness Programmes were conducted for park visitors on every Sunday. This programme was also conducted for 26 schools on other days, in which about 1400 students and teachers participated. An eight day snake survey and awareness programme was conducted for Sonadih Cement Plant of Lafarge India Limited located in Chhattisgarh. Around 900 people of different age groups attended the programme at Sonadih. Apart from this, half day snake awareness programmes were conducted for Sabarmati Ashram *Gaushala*, Redbricks School and Flourish Farm during this period. Sundarvan staff regularly attends to reptile rescue calls from the public. One hundred sixty five snakes and other reptiles were rescued during this period.

Sundarvan's activities with children act as a catalyst and stimulate the process of inquiry into Nature in them. Eleven half day and seven one day curriculum-linked activities were carried out for students from different schools to enhance their classroom learning. Sundarvan's another interesting programme on less charismatic animals, called Discover Batf, and was conducted seven times for schools and the general public.

A drawing competition was conducted for school children at Sundarvan on April 22, 2014, as part of the Earth Day celebration. A Nature and Wildlife Photo Exhibition was organised in collaboration with Photophilics during May 30-31 and June 1, 2015. A wildlife photo exhibition in collaboration with Ahmedabad Photowalkers was conducted during October 2-8, as part of the Wildlife Week 2014. A series of 10 volunteer training sessions were carried out for new volunteers in the zoo. The trained volunteers were involved in different activities of Sundarvan.

As part of networking and partnership, a brochure consisting details of Sundarvan's school programmes was developed with support from the Rotary club. Besides this, renovation of the crocodile enclosure at Sundarvan was undertaken by Mr. Nishant Shah, Director, Nishant Construction. To bring in state-of-the-art interpretation facilities, a detailed snake enclosure design was prepared and sent to the Central Zoo Authority for approval. A set of two posters, one on venomous and another on non-venomous snakes, was developed during this period. These posters are bilingual, i.e. in English and in Gujarati. The posters will remain as wonderful resource materials, as Sundarvan is known as a snake park. Sundarvan developed a butterfly garden in its premises with the help of Grade 4 students from Riverside School, Ahmedabad.

4.2 Nature Camping

4.2.1 Rural Programmes Group

The year 2014~2015 turned to be a progressive year for the Nature Camping Programme which has become a part of the Rural Programmes Group (RPG) of the Centre to give it a further thrust.

The year started with a three day Bird Watching Camp at Sundarvan Bakore in Panchmahal District of Gujarat. In a way it was a revival of the camping programme and camp site at Bakore. Bakore is a forest campsite in the tribal belt of eastern Gujarat bordering Rajasthan. Repair and renovation work was carried out at the site during the year, with a new toilet block replacing the old non-functional one. In all 15 batches camped at the site with 664 members attending. Special mention has to be made of the participation of 334 tribal children in six overnight camps, wherein they got to do activities like bird watching, nature trails, nature games and some adventure activities.

Camps were held for 1200 students spread over 27 batches at the second major campsite: the Marine Camp at Beyt Dwarka. Again a special mention is required in February 2015, a special camp was organised for a batch of visually challenged girls from Surendranagar. Deprived of visual appreciation ability, they had a great learning by touch and sound; they marvelled at the texture of shells and the sounds of waves.

Mountain camps were held at Mt. Abu in the summer of 2014, with 261 students participating in eight batches. One batch of

tribal boys, sponsored by well wishers of the camp programme, was also held. Many Sloth Bear sightings topped up with two Leopard sightings in Abu made the camps thrilling.

Besides these, five camps were conducted at Sembalpaani~Ambaji, a tribal area near the famous temple town, were conducted in which 225 school children participated. Long treks, rock climbing, rappelling, bird watching and getting a glimpse of tribal culture were the activities conducted in these camps.

For the second year in continuation, Desert Camps were held at CEE Halvad site in February 2015. About 160 students attended the camp in four batches. Little Rann of Kutch is a different world altogether with a unique ecotone spread over thousands of kilometers and rare animals like the Wild ass and a thriving bird life, and is a great place to camp in winters.

The Watch Programmes continued with the 20th Sarus Watch at Kheda as well as a Ghudkhar~Wild Ass Watch. These watch programmes are species specific, but participants also get to watch other resident animals and birds of the area.

The tables below capture the camping and watch programmes in brief.

Table A: Camps conducted during 2014-2015

| Camps | Place | Batches | Days | Participants |
|----------|--------------|-----------|------------|--------------|
| Marine | Beyt Dwarka | 27 | 84 | 1200 |
| Desert | Halvad | 04 | 13 | 160 |
| Forest | Bakore | 15 | 35 | 664 |
| Mountain | Mt. Abu | 08 | 34 | 261 |
| Tribal | Sembal paani | 05 | 14 | 225 |
| | | 59 | 180 | 2510 |



Marine camp for visually challenged girls

Table 2: Watch Programmes Conducted during 2014-2015

| Watch | Place | Days | Members |
|----------|--------|------|---------|
| Sarus | Kheda | 01 | 27 |
| Ghudkhar | Halvad | 02 | 43 |
| | | 03 | 70 |

4.2.2 CEE Karnataka

Over nine years, CEE Karnataka has been organising Nature Education Camps for urban and rural school children. As a result, *Kendriya Vidyalaya Sangathan* has recognised CEE to conduct nature adventure camps for all their KV schools in Karnataka and Goa. During 2014-15, nature camps were organised at Dandeli Anshi Tiger Reserve and Kudremukh National Park in 13 batches covering 650 students. In these, camps participants engaged with Nature through experiencing and exploring the wilderness.

4.2.3 CEE North

Nature Camps at Katerniaghat Wildlife Sanctuary: CEE North and Uttar Pradesh Forest Corporation (UPFC), a State Ecotourism Nodal agency, had signed a memorandum of understanding to conduct nature camp programmes for schools in 2013, which has been taken forward in 2014 as well. CEE team conducted two nature camps during the year.

On the occasion of Children's Day, CEE North organised a nature camp for the children of Lucknow schools. A group of 24 students from four schools of Lucknow along with five teachers were taken for a three days and two

night camp at Katerniaghat Wildlife Sanctuary by the CEE team. The nature camp module was woven around various aspects of nature and cultural heritage. Students went on exciting nature trails to get to know the forest closely and observe the key animals around. A boat ride in Girwa river made students familiar with aquatic biodiversity including gharial, crocodile, water birds and dolphins. Students were amazed to see the rare sight of a big group of vultures. Interaction with *Tharu* tribal community members also made the camp memorable for the children.

The second camp was organised for NGC school eco-club children of Pilibhit District. A group of 20 students along with a teacher travelled to Katerniaghat for the camp in March 2015. The group participated in exciting and fun filled nature activities and stayed at the forest rest house. The students from classes 6 to 8 of SRM Inter College, Pilibhit, also joined the camp. The students were taken around to see the sanctuary and given an opportunity to interact with the tribal community.

4.2.4 National Nature Camping Programme (NNCP)

CEE continued to play a supportive role to the MoEF&CC in the development of the National Nature Camping Programme. During the year, sanction for CEE's camping proposals, for the states of Uttar Pradesh, Assam and Goa, were issued. A detailed proposal for a complete national camping manual has been resubmitted.

Communicating Environment Through the Media

5

5.1 CEE - ENVIS Centre on Environmental Education and Sustainable Development

ENVIS (Environmental Information System) is a programme of the Government of India, Ministry of Environment, Forest 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 Sustainable Development (SD) and manages information in the domains of EE and SD. The following mechanisms have been set up at CEE for fulfilling the ENVIS responsibilities and objectives.

1. *Education for Change* newsletter
2. CEE ENVIS website
3. Query Response Service
4. E-Library

5.1.1 *Education for Change*: ENVIS Newsletter on Environmental Education

Three issues of the electronic newsletter are being brought out to disseminate information to network members. An annual print of the newsletter focusing on selected articles has also been brought out. The print run for the annual issue is 1000 copies of which about 750 are sent to members on the mailing list.

The soft copies of current and past issues are made available at www.ceeenvvis.nic.in.

5.1.2 CEE ENVIS Website

The Green Teacher Website www.greenteacher.org was the legacy site of the ENVIS EE programme of CEE which caters to the EE and ESD information needs of environmental educators and interested citizens, individuals and groups. To make it compatible to the NIC platform, a new website (www.ceeenvvis.nic.in) has been developed which has several interactive feature for users, particularly to post queries as well their ideas/projects. The website has a Resources section which has various databases of activities and action projects for teachers and students.

5.1.3 Query Response Management Services

The Query Response Management Service is another significant function of the ENVIS Centre. The ENVIS Secretariat solicits enquiries across regions and strives to answer them. CEE-ENVIS has been receiving queries related to various themes and concepts like pollution, environmental courses, climate change and biodiversity. CEE-ENVIS has responded to about 63 queries out of the 138 queries received through email; the rest were forwarded to the respective departments for follow up.

5.1.4 E-Library

An online database with collections of articles, books, E-books, and journals on different themes are available on the EE and ESD subject area.

5.2 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 etc.; and produces its own films and publicises films produced by others.

Children s Media Unit (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.

5.3 CEE Himalaya

5.3.1 Capacity Building Workshops for Media on Climate Change and Development in the Indian Himalayan Region

Climate change continues to be one of the most important global issues and to keep the public informed on climate change and development issues, media plays an important role. Therefore, it is important to capacity build media and help it report more effectively on climate change and

development issues. Considering this, Climate Change Division of Swiss Development Cooperation (CCD-SDC) supported four media capacity building workshops to be coordinated by CEE and The Third Pole (TTP) under the Indian Himalayas Climate Adaptation Programme (IHCAP). The knowledge partners for the programme are the Department of Science and Technology and the MoEFCC, Government of India.

5.3.1.1 Media Workshop in Shimla, Himachal Pradesh

The first of the four workshops was held in Shimla, Himachal Pradesh, from July 30 to August 1, 2014, at the Himachal Institute of Public Administration (HIPA) Centre (Fairlawns) in Shimla. This workshop focused on climate change effects and adaptation in the central and western Himalayas. Journalists from print, television, online and radio of the Western Himalayan region (Jammu and Kashmir, Himachal Pradesh and Uttarakhand) reporting on Himalayan issues attended the three day workshop together with their peers and colleagues from Punjab, Haryana, Chandigarh, Delhi and Uttar Pradesh.

Overview of the workshop: At the outset of the workshop, participants were given an introduction to the already documented impacts of climate change in the Himalayan region, especially, increase in annual temperatures, shifts in rainfall patterns and decrease in average snowfall. As some of the participants are experienced reporters on environmental issues, including climate change, the younger group of participants were able to learn from the questions posed by and the insights provided by the senior group. The group discussions focused on examples of the direct impact of climate

change on floods and droughts, glacial retreat, water stress, food production, biodiversity, forest fires, forest regeneration and productivity, infrastructure, hydro projects, health and related aspects. It became clear from the discussions that there is a critical need to develop mitigation and adaptation strategies to avoid unmanageable situations resulting from climate change induced disasters, which are often a result of unsustainable development.

Workshop participants made aware of several studies which indicate that well-researched and accurate media communication on these issues has a major impact, and for this to happen, an improvement in journalists understanding and knowledge base on these issues is important.

The representative of the Mountain Division of the MOEF&CC said that the ministry involves journalists to capture such insights, and that rather than advocate a particular policy or response, the ministry's goal is to elicit multi-disciplinary responses by including public input and support. Abdhesh Gangwar of CEE Himalaya noted that climate science has now reached the forefront but the need for creating awareness on climate change issues was just as critical. Workshops like these enable issues to be probed and stories outlined. Joydeep Gupta of The Third Pole reminded the participants that climate change and the extent to which it is adding to the risk of disasters is an under-reported area, and that while climate change threats may be similar across different Himalayan regions, the ways in which they are handled vary.

A detailed description of the administrative needs of Shimla city and of the pressures

exerted by various interest groups, was the highlight of the Deputy Mayor of Shimla's presentation, which provoked considerable comment and interest. Factors discussed included the trend of increasing consumption of goods and raw materials by a growing city population and the burden of such a trend on the mountain ecosystem. Questions from the workshop participants to the administrator probed the model of economic growth for a settlement that had been planned for a permanent population of 40000 is today home to the 230000 and host to two million tourists a year. The material demands (such as water) and burdens (waste and garbage) must be reckoned with administratively, though they tend to be politically sensitive.

Learning from the field: On the second day, the workshop participants were taken on a field trip to locations where climate change impacts and adaptation were both visible and explained. Specific areas like agriculture, biodiversity, Himalayan fauna and village development were all covered during the course of the field trip. The Shimla Water Catchment Wildlife Sanctuary and Forest was explained and interpreted by Mr. R K Sood; at the Central Potato Research Institute in Kufri the participants' questions were answered by Mr. Vijay Kumar Dua of the Climate Change Division; at Shimla Zoo, an interpretation address was delivered by Mr. Satish Gupta, DFO Wildlife, and Vinod Sharma, DFO Shimla; at the Panchayat Bhawan in the village of Janaidghat the participants met and spoke to local farmers, women, self-help groups and Panchayat office bearers, which was facilitated by the NGO *Paryavaran Avam Gramin Vikas Sansthan*; during the lunch break at Chail Palace, participants learnt about forest ecology and conservation from Dr. Vaneet Jishtu, Scientist

with the Himachal Forest Research Institute, ICFRE; this was followed by a visit to Mahog village whose residents are active floriculturists. The participants benefited immensely from these interactions.

Media roles and the development question:

On the third and final day of the workshop, a wide ranging narration and discussions helped familiarise the participants with diverse views on the ideological and political aspects of development choices in Himachal Pradesh. Resource persons from the NGOs, Himalaya Niti Abhiyan and Swayamsevak Sansthan described the roles and activities of social change organisations. They decried the use and throw economic model which has become commonplace in India, even in the Himalayan region, and which makes a society more extractive and use more resources, and also demanding of energy because the per capita energy consumption measure has become a measure of development.

Having heard from domain experts, the participants also listened to the critical views of social workers and debated questions on alternatives to development. The most difficult factor is the struggle for families and households to control what they use and buy, for which regular education is needed, which makes the role of the media paramount. Equally important is the provision of an interface between science and implementation, which ICIMOD Kathmandu undertakes with its knowledge partners, and Mr. Nandkishore Agrawal explained that such an approach addresses climate science partly by bringing clarity to the climate-community connections.

While there is a National Mission for Sustaining the Himalayan Ecosystem and all

states have drafted state action plans on climate change, proposals in the state plans are more or less generic, and often actions and policies have been shaped through media reporting of climate science and public opinion. The participants and resource persons broadly agreed that the Himalayan region is underreported in the national media and news stories remain regional. Media participants were urged to highlight linkages between climate change and development and to find ways through their work to integrate climate change concerns in development planning.

5.3.1.2 Media Workshop in Namchi, South Sikkim

The second three day media workshop was held in Namichi, South Sikkim during November 17-19, 2014. A diverse group of journalists from print, television, radio and online media based in Sikkim, Assam, Manipur, Kolkata, Odisha and New Delhi attended the workshop. Speakers included representatives from state and local governments, administrators working in Sikkim and experts on climate change issues. Besides presentations from experts and discussions on issues related to climate change adaptation and mitigation, the workshop also included a field visit to Namthang, a small town in south Sikkim, and group exercises that enabled participants to discuss obstacles faced in reporting climate change issues in the eastern Himalayan Region.

The structure of the workshop was designed with a view to elicit the best possible combination of learning, in situ experience and discussion. Hence the first day was dedicated to presentations by the thematic and domain experts; on the second day a site

visit was organised to Parbing village - a Sherpa community village, Krishi Vigyan Kendra (KVK) in Namthang Block, Namchi; and on the third and last day, group exercises were conducted along with the concluding sessions.

Sikkim – Impact of initiatives taken to reduce climate change concerns: Mr. Sandeep Tambe, Commissioner of Rural Development, gave a presentation on Sikkim Experiences in Bridging Science, Policy and Practice relating to Climate Change Adaptation. He highlighted the challenges that arise due to climate change like reduction in snow fall, reduction in rainfall with high intensity and frequent occurrence of hailstorm, etc. He also presented the steps taken by the Sikkim government; eg. Prohibition of herding of cattle with compensation offered to the affected herders. He also said that Sikkim is probably the only state which has banned the use of chemical fertilizers and promotes only organic farming. Participants later interacted with the Commissioner, probing in detail the mechanism adopted or started by the local government to minimise the threat of climate change issues.

Water conservation is the main concern of rural dwellers in drought prone areas; the government has started *Dhara Vikas Yojna* under MGNREGA to counter this. One participant, Mr. Pem Norvu Sherpa, shared his experiences on water conservation particularly through locally available sources. The *Dhara Vikas* programme focused on rejuvenating and reviving the underground water by blocking the surface runoff of water using trenches and manmade ponds which gives time for the water to percolate down and recharge the aquifers which then emerge as springs. Due to this

scheme, several positive impacts have been observed like seasonal springs becoming perennial springs, production of horticultural crops and increase in the number of storage tanks. Since 2008, out of the 704- spring sources screened, 54 springs have been revived in 20 villages across Sikkim.

Mr. Joydeep Gupta from The Third Pole started his session with three basic questions addressed to the three teams formed by the participants for a joint group exercise on 'What are the three biggest obstacles to do stories on climate change in the media?' The three questions he asked them to discuss were: a) Why should we bother about climate change? b) What is the impact of climate change on water? c) How good are we at developing stories? He ended his presentation by advising media persons to treat stories on climate change as any other story and not necessarily an environmental story.

On the second day, the participants went on a field trip to Parbing Dobang village and Krishi Vigyan Kendra. They were welcomed by the Panchayat member and accompanied by Mr. Ravin Prasad Sewa, the *Gram Vikas Adhikari*. The visible impact of *Dhara Vikas Yojna* could be seen in this village. Participants interacted with the villagers and could also see for themselves the scheme where the government has helped villagers build step roads over the hill to reach the aquifer area of this rain shadow village. They also trekked to the multiple trenches built on the path of the slopes where the stream flowed, as well as water the collecting tanks which enabled the villagers living below the hills to reap the benefits of the scheme. The farming community of Parbing village grows peas, potatoes and chillies, and even practise

poly house based floriculture and horticulture, all of which has been made possible by the now perennially available stream water.

Role of NGO: Reducing the impact of climate change: The third day started with a presentation by Dr. Bibhab Talukdar of *Aranyak* who spoke on the Role of NGOs in Climate Change. He highlighted the rich biodiversity of north east India where there is still scope for discovery of many more new species, though some may have even been lost forever. He also discussed about some indicator species like *Mimosa* which is important for the survival of Rhinoceros in Kaziranga. He also drew the participants attention towards the status of some charismatic species in the north east like Hoolock Gibbon, White Winged Wood Duck, Bengal Florican, Golden Langur, Tragopan, Python, etc. He said that the rainfall is quiet erratic and intense these days leading to frequent occurrence of drought and flood, which may be an indication of climate change. Installation of Flood Warning System in some villages of Dhemaji in Assam was also discussed by Dr. Talukadar. He further said that environment and development can go hand in hand with the help of renewable energy programmes and eco-friendly transportation system. Finally he urged the media fraternity to speak up and deepen their commitment, and not to give up. Later, he responded to a battery of questions from the media persons to their satisfaction.

Mr. Udaayan Mishra of ICIMOD, Kathmandu, spoke on the Core Competencies of ICIMOD and its Engagement with Media. He said that ICIMOD is the Inter Governmental Regional Organisation working on the Himalayas from Myanmar to

Afghanistan. He listed the key priorities of ICIMOD as ~ Adaptation to Change, Transboundary Landscape issues, River Basins, Cryosphere and Atmosphere, Regional Information System and Hiamlayan University Consortium. He also highlighted the various approaches of ICIMOD for engaging with the media and listed down their key resource persons and their key priority areas.

Ms. Bina Gurung, ADC, Programme Coordinator, MGNREGA, South Sikkim, spoke on the subject of *Dhara Vikas* and its benefits in terms of water security as well as agricultural output. She highlighted how the MGNREGA funds have been used in a constructive way in this part of Sikkim for ensuring perennial water supply, rejuvenation of lakes and springs and other asset creation activities in villages, with particular focus on conservation and agriculture.

During the second half of the final day, participants were divided into three working groups and an editorial group. The working groups were asked to prepare three story ideas on the basis of the presentations and interactions in the workshop as well as during the field trip. There was a lively interaction and discussion on the nine stories which emerged from this session as it covered interesting subjects meant for the audio, video and print media. The stories were mainly focused on water conservation, organic farming, large cardamom cultivation, use of MGNREGA funds, etc.

Media Stories that appeared post CEE-TTP-IHCAP Workshops

1. Rains and blocked drains. Chitra Ahanthem. Imphal Free Press. June 16, 2014.

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- <http://ifp.co.in/page/items/21692/rains-and-blocked-drains>
2. The story behind development projects. Imphal Free Press. July 9, 2013.
<http://ifp.co.in/page/items/15475/15475-the-story-behind-development-projects>
 3. All weather communication need of the hour in Uttarakhand. Meena Menon. The Hindu. August 2, 2014.
<http://www.thehindu.com/news/all-weather-communication-need-of-the-hour-in-uttarakhand/article6275478.ece#lb?ref=infograph/0/>
 4. Journos discuss challenge in climate change. The Assam Tribune. November 24, 2014.
<http://www.assamtribune.com/scripts/detailsnew.asp?id=nov2414/oth052>
 5. Himalayas losing prized spice to climate change, poor science. Subhra Priyadarshini. natureINDIA. November 27, 2014.
<http://www.natureasia.com/en/nindia/article/10.1038/nindia.2014.162>
 6. Springs, not glaciers, fighting back climate change in eastern Himalayas.. Subhra Priyadarshini. natureINDIA. December 10, 2014.
<http://www.natureasia.com/en/nindia/article/10.1038/nindia.2014.167>
 7. New Data Predicts Fiercer Floods In Brahmaputra, Indus. Max Martin. IndiaSpend. December 13, 2014.
<http://www.indiaspend.com/cover-story/new-data-predicts-fiercer-floods-in-brahmaputra-indus-65170>
 8. Media Workshop on Adaptation to Climate Change in the Indian Himalayas. Indian National Science Academy, New Delhi. Waterkeeper India. December 25-29, 2014.
<https://www.flickr.com/photos/waterkeeperindia/sets/72157649398668022/>
 9. Rs 38,420 crore: Little Sikkim's Huge Growth Gamble. Soumik Datta. IndiaSpend. January 3, 2015
<http://www.indiaspend.com/cover-story/rs-38420-crore-little-sikkim-huge-growth-gamble-96374>
 10. Going organic: Field notes from Sikkim. Daily O. Sourabh Gupta. February 11, 2015.
<http://www.dailyo.in/lifestyle/going-organic-field-notes-from-sikkim-farming-namchi-perbing/story/1/1974.html>

5.4 Science Express Biodiversity Special at Khadki Station, Pune

Science Express Biodiversity Special (SEBS) arrived at Khadki on December 17, 2014 morning. It was received by students in a welcome ceremony organised by CEE on behalf of the MoEF.

In a special video message for children in Pune, Shri Prakash Javadekar, Hon ble Minister of Environment, Forests and Climate Change, welcomed the Science Express to Pune. He spoke about India as a mega-

biodiversity country. Especially addressing children, he said that each living being has a role in the cycle of nature and SEBS encourages each of us to participate in biodiversity conservation. Shri Javadekar appealed to Pune-kars, especially schools, to visit SEBS while it was at Khadki. Mr. AB Mendekar, Additional Divisional Railway Manager (Central Railways); Mr. P J Michael, Deputy Secretary, MoEF; Mr. Mohekar, Regional Officer, Maharashtra Pollution

Control Board; and Ms. Sanskriti Menon, Programme Director, CEE, were part of the Welcome Ceremony.

Shri Javadekar also visited SEBS on December 20, 2014, the last day of the SEBS stay at Khadki, with the Divisional Railway Manager and Ms. Sanskriti Menon of CEE being present. Science Communicators facilitated the visit and interacted with the Minister.

6

EE Through Interpretation

6.1 Protected Area Interpretation and Ecotourims (PAIE) Group

The year 2014-15 saw a large variety in the themes of interpretation projects completed by the Protected Area Interpretation and Ecotourism (PAIE) Group and the Graphic and Exhibit studios at CEE, Ahmedabad.

The first of the projects was an interpretation centre and nature trail at Shahnoor in Melghat Tiger Reserve in Maharashtra. This centre highlights the richness in the biodiversity of Melghat Tiger Reserve nestled in the Satpura hills in Maharashtra. It also highlights the tribal communities residing in and around the reserve, their culture and their relationship with the forest.

The second project was a museum cum interpretation centre at the Tropical Forest Research Institute (TFRI), Jabalpur. The centre highlights the importance of and the need for research in tropical forestry and showcases the work done by TFRI in the field.

The third centre situated at Nagzira Wildlife Sanctuary in Maharashtra, focused on the biodiversity of Nagzira and its importance as a major habitat link between important tiger landscapes of central India.



Nagzira Wildlife Sanctuary in Maharashtra

A report on Project Tiger was compiled, designed and published for the National Tiger Conservation Authority (NTCA).

A small interpretation facility was set-up at the Indian Institute of Forest Management (IIFM), Bhopal, to showcase the work of the institute to visitors.

6.2 Agricultural Science Museum, Raichur

CEE Karnataka developed an Agricultural Science Museum at the University of Agriculture Sciences, Raichur, to showcase its achievements in the field of Education, Research and Extension, and also share with the general public the highlights of its magnificent journey in the field of agriculture and its contribution in changing the life of the people in Hyderabad-Karnataka (H-K) region of Karnataka state. The museum aimed to highlight the agro biodiversity of the region. As part of this initiative, 35 informative display boards were developed through fabrication, content research and design, including aerial photography. A total area of over 2000 square feet worth of display has been developed under this project.



Tropical Forest Research Institute (TFRI), Jabalpur

7

Knowledge Management for Sustainability (GCS)

7.1 Assessment of Community Dependence in Coastal Ecologically Sensitive Areas

CEE, with support from and partnership of the National Centre for Sustainable Coastal Management (NCSCM), is facilitating a project to survey the households of coastal communities in the critically vulnerable coastal areas (CVCAs) as indicated in the CRZ 2011 Notification. The project seeks to develop a knowledge system on ecologically sensitive areas (ESAs), understand community dependence on such areas and identify areas of intervention to involve them for its sustainable management.

As part of this, a stakeholder consultation meeting was facilitated in Karwar Taluka in Uttara Kannada District on September 19, 2014. Around 67 people representing the fishers, farmers, NGOs, and government officials including the District Collector, participated in the meeting and shared their views. CEE also facilitated NCSCM to test the questionnaire and develop the training sessions for enumerators. The survey instrument is proposed as a tablet instrument with a specially designed app that enables the survey to be conducted in multiple languages and also eliminates the need for separate data entry. The data captured, including audio-visuals, can be sent to the server on real time basis for further analysis.

7.2 External Evaluation of CAMPA (Compensatory Afforestation Fund Management and Planning Authority) Activities of Goa Forest Department

CEE Goa State Office has been nominated by the CAMPA Steering Committee as an external Monitoring and Evaluation Agency to evaluate CAMPA activities of the Goa Forest Department. The external evaluation for 2013-14 with respect to Compensatory Afforestation, Soil and Moisture Conservation, and Wildlife and Habitat Improvement has been completed. CEE developed an evaluation format, organised a one day orientation workshop for all the Range Forest Officers, and accessed the pertinent information from the division. Based on the information provided by the Forest Department, CEE planned and conducted field visits, held discussions with the field staff and other stakeholders. The report and suggestions that emerged from the evaluation exercise have been submitted to the Goa Forest Department for their perusal.

7.3 Gyansetu

The WEST group of CEE implemented the project Virtual Resource Centre (VRC) and Training Platform for primary teachers in rural areas on a pilot basis for the government rural primary schools of Valsad District, Gujarat. The project was awarded by the Education Innovation Fund for India (EIFI) in 2012. As per the project, a tablet enabled with internet connectivity through a mobile SIM card, in-built educational applications developed under the project, and a 32" LCD TV for projection were provided to 10 government primary schools.

A specific educational networking portal that serves as a virtual online resource centre has also been developed. Resource materials and innovations in the field of education were shared on a periodic basis with the teachers using the VRC application through the portal. How well the teachers receive these

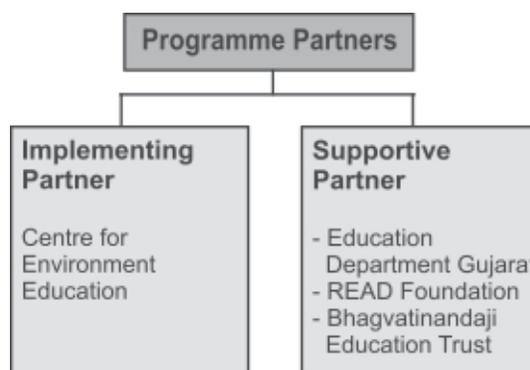
educational materials and use it, are being monitored as part of the programme. The application has features that allow teachers to share their ideas and concerns at any time and obtain response through the portal operated by the Centre.

This is the first application that CEE has developed for education purposes. The basic features of the application are:

- It is an Android based application and is support by Android phone
- It works in both online and offline modes and so even a teacher in a remote area can use it in offline mode and log in to update whenever necessary.
- It works in mobile 2G network, thereby avoiding the need for high speed network.
- The tablet is a 7" one, and hence easy to carry, with more than 3 hr battery backup.
- The tablet can be connected through HDMI with LCD/LED/Projector for projection to bigger audiences.
- Its expandable memory provides enough space to preload the content in the tablet.

After completing the field test of the application, it is proposed to upgrade the programme and also scale up the number of users. Since this is being conducted in collaboration with the Education department, other school teachers have also shown interest to be part of this programme. Other organisations like Bhagvatinandji Education Trust, Junagadh, with 33 schools in Chaparda Block of Junagadh District, and READ foundation is interested to support 100 schools in Valsad District by providing tablets and accessories, are interested in joining the programme by paying an annual maintenance fee.

With this kind of response, the project is being proposed to become self-sustaining be launched under the name GYANSETU for interested users.



Programme Parteners:

- CEE
- Education Department, Government of Gujarat
- READ (Rural Education And Development) Foundation, Ahmedabad, Gunarat
- Bhagvatinandji Education and Health Trust (BEHT), Chaparada, Junagadh, Gujarat
- Mundra International Cargo Trading, DP World, CSR, Mundra, Katchh, Gujarat

Roles and Responsibility as Implementing Agency:

- As implementing partner, CEE will be the secretariat for the programme.
- The online support will be provided by CEE through Block and Cluster Resource Co-ordinators.
- Online monitoring reports will be submitted to the concerned education authorities.

- Orientation of teachers and online education support to them is to be provided through the VRC network.
- A progress report of the programme should be generated on a quarterly basis.

Recent progress in the Programme: As the idea has been accepted by many teachers and agencies, the technical aspects are also being developed. Till date, 181 schools have become part of this programme and 181 teachers are using Gyansetu Application in their classroom teaching.

| Sr. No. | District | No. of Gyansetu Application Users |
|---------|--------------|-----------------------------------|
| 1 | Valsad | 60 |
| 2 | Bhavanagar | 40 |
| 3 | Junagadh | 36 |
| 4 | Gandhinagar | 6 |
| 5 | Katchh | 24 |
| 6 | Rajkot | 1 |
| 7 | Surat | 12 |
| | Total | 179 |

7.4 Development of Eco-sensitive Area Map of Coastal Areas in Goa

The Goa State Pollution Control Board (GSPCB) commissioned CEE Goa State Office to develop a map of eco-sensitive areas along the Goa coast which could be used by the coastal managers in case of oil spills and for other ecosystem management activities. Eco-sensitive areas such as beaches, mangroves, estuaries, sand dunes, low lying paddy fields, salt pans, marine turtle nesting sites, heritage sites, and places of tourist importance were

identified and mapped. This was done using GIS and remote sensing information, and also involved discussions with local stakeholders and secondary research and literature review. Information related to the sensitive area was given alongside so that the ecological importance is known for the purpose of better management.

7.5 SDGs and India

As one of the main outcomes of the Rio20+ Conference, the member states agreed to launch a process to develop a set of Sustainable Development Goals (SDGs).

India as an active member and party to the whole process, took the initiative to conduct an in depth study of the identified thematic areas in order to provide the background for developing India's contribution to the SDG dialogue and the stand it takes on specific SDG targets. CEE assisted MoEF&CC through a project supported by UNDP, to prepare an overview of the selected thematic areas like poverty eradication, full and productive employment, food security, sustainable agriculture, energy, oceans and seas, forests and biodiversity amongst others.

Two volumes of discussion papers were prepared by CEE as an input for the development of India's stand on SDGs. These publications are a compilation and analysis of secondary data on the specified thematic areas based on the Planning Commission documents for the India baseline, documents from concerned ministries and relevant UN documents. The Director - CEE also attended the Open Working Group discussions at the United Nations and was a part of the India team.



Industry Initiatives

8.1 Sustainable Business and Climate Change Group

CEE's Sustainable Business and Climate Change (SBCC) Group works with business with a view to assisting them evolve and support actions towards sustainable development. The activities involve information servicing, training, assessments and capacity building on thematic areas related to sustainability, energy and waste, linking industrial activities with environmental compliance, protection and policy learnings.

SBCC focuses on climate change education for sustainable development, climate policy, carbon financing projects and footprint assessment. It develops academic courses and programmes for centres of higher learning, assists course development and delivery, carries out monitoring and assessments on climate adaptation and mitigation, and conducts research on emerging themes on climate.

8.2 Industrial Pollution Prevention – Training Initiatives

CEE intends to create awareness and build the capacity of different stakeholders, viz. common infrastructure facility operators, industries, consultants, concerned government officials, NGOs and others in the field of environmental pollution control and cleaner production for better compliance.

The activity on the industrial pollution training for small and medium enterprises was reorganised and its objectives defined in the context of the need for sustainable industrial development and priorities. CEE is working with Industrial associations and expert agencies for a series of theme based

training programmes covering subjects like environmental legislations, cleaner production, Environment Management System, air pollution control and waste water treatment technologies, co-processing of waste, recent environmental issues and best management practices for different stakeholders. It aims to impart training to officials at different levels in the industrial sectors so that they are fully aware of environmental issues and their solutions for compliance, thereby leading to sustainable development.

The group mission is to provide students, community and business with quality academic training, expertise and advice by developing solutions that improve the quality of the environment and help sustainable development through meaningful engagement.

In the year 2014-15, SBCC group took initiatives to develop newer activities in the areas of compliance monitoring and assessment, pollution prevention and remediation and climate change education. These initiatives have led to development of both newer learnings and partnerships which will enable furthering the group mandate to engage diverse stakeholders.

8.3 Environmental Action Magazine

CEE, in association with Gujarat Pollution Control Board, developed a magazine titled *Environmental Action*. CEE was involved in developing the content/materials for the magazine, covering latest news on the environmental front at the state, national and International levels. CEE also helped develop editorials and articles from senior GPCB officers, CEE personnel and external experts. The magazine provided industries with success stories on cleaner technology,

management practices and trends in sustainability. These were further augmented with news on legal amendments or notifications in the Acts by MoEF&CC and Gujarat State Pollution Control Board.

8.4 Waste Utilisation Center

CEE has established a knowledge center on hazardous waste management and a museum of wastes in association with Naroda Enviro Projects Limited (NEPL), Ahmadabad. A round table discussion on Industrial Symbiosis and Circular Economy was held with representatives of GPCB and CEE, industrial associations, cement industries and waste recyclers participating. The roundtable was jointly conducted by CEE and a Visiting Fellow from the University of Guelph, Canada.

8.5 Case Study on Education for Mitigation – UNFCCC- UNESCO and CEE’s Joint Partnership

Education is an important tool in climate change mitigation actions as it not only brings in emission reduction but also decides the level/degree to which we can succeed in emission reduction. UNFCCC, UNESCO and CEE, in joint partnership, are conducting a research to understand the role of education in mitigation. UNFCCC, through Article 6, recognises education as an important tool for mitigating climate change. Case studies are being identified where education played a key role in achieving mitigation goals.

The project has been presented during the UN Alliance Annual Meeting in Geneva in October 2014, and COP 20 in Lima in December 2014. The cases will be presented at the COP 21 scheduled for Paris in November~December 2015.

8.6 Evaluating Climate Change Project - Earth Care Awards 2015

Earth Care Awards (ECA) on Climate Change Mitigation and Adaptation was launched in 2007-2008 and is jointly promoted by JSW and Times of India. CEE functions as the Knowledge Partner for the awards and carries out the process of assessments and evaluation of different projects/initiatives.

The Awards, which aims to recognise efforts towards mitigation and adaptation initiatives by industries, communities and individuals, stepped into its sixth year. The sixth edition of the awards was launched in 2014 and focuses on three important areas, significant action by industries, community and by individuals.

A compendium on the awardees of the Earth Care Awards is being developed to showcase efforts on mitigation and adaptation undertaken by different groups covered under the awards process. It would also showcase the environmental stewardship approaches adopted by the ECA award winners towards climate change mitigation and adaptation. The cases would be divided into three thematic areas, namely, communities, innovation for climate protection, and industries (large scale as well as small and medium scale enterprises).

Each case of the ECA Compendium would give a sectoral overview, background of the organisation, project details, key interventions undertaken, net benefits achieved, issues faced, and learnings for the policy makers. The Compendium would act as a ready reference on the best cross sectoral approaches under taken by the award winners and would promote sustainable technologies, policies and practices.

8.7 Facilitating Documentation of Renewable Energy (RE) and Energy Efficiency (EE) Initiatives by Journalists in India

CEE is partnering with the Heinrich-Böll-Stiftung to implement a project on capacity building of journalists and documentation of RE and EE initiatives by journalists in India.

The objective of the project is to build capacity of Indian media to understand the renewable energy and energy efficiency initiatives and bring forward these initiatives to the attention of the larger public and policy practitioners, so as to contribute to an informed and critical discussion about renewable energy and energy efficiency in India. The project seeks to empower journalists with stories, not only on issues related to renewable energy in India but connect them to the international processes and debates, including the German Energiewende, UNFCCC, SDGs, SE4all, and others. Finally, the project seeks to enable journalists to connect the renewable energy debate in India to growth and sustainable development implications. It is expected that journalists, after participation in the project activities, would be empowered to facilitate a holistic discussion on renewable energy in India and beyond.

Project activities include:

- Providing information to journalists about the state of the art, potential, policies and barriers of renewable energy and energy efficiency, as also resource scarcity with regard to fossil fuels in India;
- Initiating a discussion about renewable energies and sustainability in India;
- Creating awareness in journalists about the German Energiewende and its potential take-away for India;
- Updating them on international processes under UNFCCC, IRENA, SE4all, SDGs, etc. for ongoing and future international collaboration on renewable energy;
- Engaging them in expert discussions and field visits in India and Germany for first hand information and experience in the subject; and
- Facilitating story writing on the above topics and their contexts.

8.8 Participatory Stakeholder Engagement for Environmental Monitoring

The current pace of developmental activities across different industrial segments has led to a host of unresolved issues between community, industry and regulatory agencies. Concerns have been raised about the time taken for remedial and redressal of issues pertaining to observed non-compliance and also aspects related to conflict of interest between the parties involved. There is a felt need to reduce the response time and also strengthen the resolution process.

A participatory process, in this context, can independently validate actions and communicate them to the right audience. CEE has initiated such a process through a project office in Mundra, Kutch. With the support of Mundra Port SEZ Ltd., CEE is developing a process to strengthen its compliance reporting structure and bring more transparency to its activities. The work on this has started with the development of reports on baseline indicators by involving college and youth groups. Training and capacity building of

college students and community members on environment monitoring of the local area and building citizen partnership have been conducted for this.

8.9 Appliance Energy Standard & Labeling Programme – Application of TAP-C framework

In 2012-13, CEE established the Energy Efficiency Network, with the participation of leading civil society organisations. The objective of EENET is to promote participation of civil society groups in energy efficiency, particularly in the segment of Appliance Energy Efficiency. As part of the EENET activity, CEE received a sub grant from World Resources Institute, for the purpose of developing an understanding on the TAP-C framework (Transparency, Accountability and Participation ~ Capacity) components, which would be part of the governance mechanism of standards and labeling processes in India. The project generated feedback from different stakeholders brought together from diverse backgrounds who are engaging with this sector. The outcomes were:

- Development of an understanding on the stakeholder perspectives related to Standards and Labeling practice.
- Identification of key barriers in the governance framework of TAP-C as per the proposed framework developed by PRAYAS and WRI.
- Reaching a level of clarity in the areas that require interventions, related to different stakeholder groups and developing engagement pathways.

8.10 Mangrove Plantation Monitoring

CEE has been associated with Petronet LNG Ltd., Dahej and Gujarat since 2014 for providing expert service on Mangrove Plantation Monitoring and Reporting. The task involved conducting field assessment studies on mangrove plantation, assessing growth parameters, survival rate, associated biodiversity, and arriving at the suitable suggestions.

The Mangrove Monitoring exercise was conducted twice a year in different locations of Bharuch and Bhavnagar districts of Gujarat. The project reports highlighting the overall observations, including highlights on successes, challenges and barriers, was formulated submitted to Petronet LNG Ltd. Emphasis was laid on understanding local resource availability, usage pattern, anthropogenic stresses, and stakeholder engagement required for ensuring long term sustainability of the mangrove plantations.

8.11 Clean Development Mechanism (CDM) Project on Afforestation and Reforestation

CEE partnered with the Forests Department, Government of Gujarat since 2012 to develop CDM projects on Afforestation and Reforestation for Bhavnagar and Panchmahal districts, Gujarat. Under the project, several field visits were carried out to identify the project land parcels and conduct stakeholder consultation for assessing the needs and willingness of the participants. The Project Concept Note (PCN) and Project Design Document (PDD) were formulated based on the feasibility studies, standard procedure and UNFCCC guidelines. The PDD for Bhavnagar has been submitted to the forest department for their suggestions and approval.

Sustainable Rural Development

9.1 Hingolghadh Eco-development Programme (HEDPro)

Background

CEE has been working in Jasdan Block since 1988 for sustainability education with the rural community. 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; CEE is also facilitating sustainable development in project villages through them.

Some of the major activities of HEDPro during the year are given below.

- As part of our initiative to promote sustainable agricultural practices which



Hingolghadh Eco-development Programme (HEDPro), Jasdan

are appropriate for the semi-arid region, 50 farmers have started horticulture through linking up with government schemes. Species like custard apple, lemon, chikoo and pomegranate have been cultivated. These farmers are also being provided training in and exposure to sustainable farm management practices.

- From *Gram Nidhi* fund, about 35 eco-entrepreneurs were given loans for activities like buying a Gir cow, building cattle shed, livestock practices, landscape management, etc.
- SHG group members practising organic farming participated in several organic fairs across Gujarat, generating a total income of Rs. 20, 00,000 through sale of various eco-products.
- Seeds of the local variety of pearl millet were distributed among the SHG members with an agreement to contribute seeds to the seed bank for further distribution. Due to the efforts of CEE Jasdan and other organisations in the field, this vanishing variety is being conserved.
- Sahyog Agri Mall, initiated by farmers in 2010, achieved a turnover of about Rs. 12, 00,000 through sale of seeds, bio-compost, bio-pesticides, small tools, etc. Sahyog Mall also serves as an information centre for the farmers, providing them with information about government schemes and also assisting them with relevant forms.
- Jasdan Field Office is involved in plantation programmes in the region, for which, every year, CEE Jasdan approaches various nurseries in the Saurashtra region to get quality saplings. Plantation on farm boundaries, schools, public lands and

back-yards is being promoted with the involvement of communities. This year too, about 20000 saplings were distributed among the community at nominal charges. This programme, over the years, has added to the tree cover while also helping meet the community's fuel-fodder needs.

- Towards creating a partnership with CSR, CEE Jasdan team conducted seven trainings for Reliance Foundation, which focused on the capacity building of small farmers in creating nutritional garden, as part of the Reliance assisted RNG (Reliance Nutrition Garden) project. Each village-specific training covered about 35-40 participants, with about 350 women farmers being trained. Aspects like cultivation, storage, seed treatment and nutritional cooking were also discussed during the trainings.
- CEE Jasdan is a member of the *Swachh Bharat Abhiyan* Committee for Jasdan Block. During the year, the team served as resource people for three villages and Jasdan town to conduct the campaign under *Swachh Bharat Abhiyan*. CEE Jasdan also participated in the *Krusha Rath* programme of Government of Gujarat. As part of the programme, an exhibition on medicinal plants and sustainable agriculture was set up in three villages. CEE Jasdan team members were also resource persons for the trainings organised under the *Krusha Rath* programme.
- As part of collaboration with higher education institutes, 16 students from Bachelors and Masters in Rural Studies stayed at Jasdan for their internship and gained much needed practical exposure in the field.

9.2 Gramshilpi

CEE, in partnership with Gujarat Vidyapith, runs the *Gramshilpi* programme since 2007. Every year, a batch of graduate and post graduate students joins the programme to pursue their career of 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. As of now, 42 *Gramshilpis* have taken up the cause of rural development, and out of them, 10 have settled down in villages undertaking various activities. *Gramshilpis* get a monthly stipend for their personal and programmatic needs during the initial two years.

During 2014-15, three post graduates were selected for the project as *Gramshilpi*, through a selection process conducted by CEE for the students of Gujarat Vidyapith. After twenty one days of the first contact session, they selected villages from three different districts. Their capacity building and need based training covered content like primary education, elements of earth, as well as methodology and skill modules. One of the *Gramshilpis* from the current batch is now associated with this project.

The new *Gramshilpi* selected his village from the interior areas of Katchh District, Khavada and Khadir, and is planning to work with children for their better future and education. One of the earlier *Gramshilpi*, Nilam Patel has been awarded with *Jagrit Jan Sanman* by *Jagrit Jan Trust*, Ambavadi, Ahmedabad, for his commitment to the tribal people of Banaskantha District. The two other *Gramshilpis*, Jaldip Thakar and Ashok Chaudhary, have been

awarded with Gandhi Mitra Award by the Hon ble Rajyapaal Sri O.P. Kohali. Another *Gramshilpi*, Gautam Chaudhary, working in the tribal area of South Gujarat, The Dangs, has started a residential facility for the children of migratory families; 32 children are being provided schooling by the efforts of Gautam. Ashok Chaudhry, working in Karutha village of Surat District has got 17 children enrolled in grade 8 for continuing their studies after completing their primary education.

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 the role of a mobile information centre. They have become a guide for their villages in matters pertaining to education, career, administrative procedures for villagers to get their lawful entitlements and other rights. They also provide 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 and ensuring their education.

9.3 Environment Management Framework (EMF) for TNEPRP

CEE Tamil Nadu serves as a State Environment Resource Agency (SERA) for Tamil Nadu Empowerment and Poverty Reduction Programme (TNEPRP), for the implementation of Environment Management Framework (EMF). The major achievements under the three components of the project are as follows:

Component 1: Environmental Monitoring

Environmental Supervision: SERA have completed Environmental Supervision for 10 districts under Phase II of the TNEPRP project. This involved steps like desk review, field visits and meetings with the Project Management Team and field functionaries. The field visits covered 93 livelihood activities.

Environmental Audit: CEE has completed the second round of Environmental Audit of EMF, data analysis had been completed with EA status, environmental mitigation measures, eco friendly activities, etc., and submitted its report.

Component 2: Material Development

Handbook on Sustainable Agriculture with chapters on Integrated Nutrient Management (INP), Non chemical Pest Management (NPM) and Irrigation Management were developed by SERA.

Environmental Monitor Report: Possibilities of convergence with the government line departments in their respective districts in the area of Natural Resource Management were documented. This is being used as a reference by the District Project Management Units (DPMUs) and Project Facilitation Teams (PFTs) to implement the environmental mitigation measures.

Newsletters: To avail and enrich the knowledge of Project Officials and community regarding Environmental Concerns and Natural Resource Management (NRM) aspects, SERA developed newsletters on a bimonthly basis, which were published in

Muttram (Magazine by TN Women Development Corporation). The issues are:

- i) Solar Energy ~ Offering a ray of hope;
- ii) Rain water harvesting - Every drop counts;
- iii) Sustainable Agriculture Practices that gives better return;
- iv) Common carp cultivation in village ponds;
- v) Energy conservation schemes for women; and
- vi) Compost from farm waste.

Component 3: Promotion of Eco friendly Activities

About 700 eco friendly activities are being promoted under TNEPRP which include fodder cultivation, vermicompost, organic agriculture, Azolla cultivation and bio gas.

Sector wise special initiatives include: Agriculture ~ Participatory Guarantee System (PGS), Dairy ~ Bio gas and Carbon Finance, Energy - Improved charcoal technology

10.1 Supporting Urban Sustainability (SUS)

Supporting Urban Sustainability (SUS) is a programme co-developed and offered by CEE, ICLEI and Swedish International Centre of Education for Sustainable Development (SWEDES) since 2010. The programme aims at enhancing the capacity of key public, civic and private organisations to collaboratively learn about and take action for improving ecosystem services that essentially benefit poor communities. Collaborative learning enables pooling of knowledge from different areas of expertise, both within and between city teams, through exercises in joint workshops, mapping, story-telling, group valuation, reflection and evaluation sessions. The programme uses Inquiry Based Approach (IBA), where stakeholders (like local government, academia, NGOs, private sector firms, and media) jointly specify the objective of their learning process. Cities from the last programme were Rajshahi (Bangladesh), Hoi An (Vietnam), Thimphu (Bhutan), and Gangtok, Guntur, Guwahati, Kozhikode and Malvan (India). The teams in four of these cities ~ Gangtok, Guwahati, Kozhikode and Malvan ~ took up additional activities to support the work done as part of the inquiries in 2013.

SUS Gangtok, who had taken up waste management as their topic, had planned a few activities for its second year of continuation as two programmes ~ community and school programmes. Along with these two planned programmes, the team was also successful in working with unorganised individuals and groups engaged in waste management. The Gangtok Municipal Corporation took keen interest in developing its own IEC material with the help of other stakeholders. The

developed IEC material consisted of a citizen's charter which was created with the objective of increasing awareness among the public. A Tetrapak compactor was installed in the Samdur area in coordination with the Indian Army and the SUS team. A programme on electronic waste was also organised by the Information & Technology Department in collaboration with the Gangtok Municipal Corporation and CEE, as part of which a small school programme on e-waste awareness was also conducted at Kye de khang School.

In SUS Guwahati, a day-long Stakeholder Awareness Camp to address a diverse group of stakeholders together was organised in November 2014 at Deepor Beel Watch Tower premises. There was participation from communities, schools, government bodies and local institutions, numbering almost 100. Activities included bird watching, water quality testing, community interaction, conversation centred on the historical accounts of Deepor Beel, traditional fishing practices and a Legal Awareness camp related to legislations governing the management of the Beel.

SUS Kozhikode Team organised a workshop in November 2014 covering the topics:

- Valuation of Ecosystem Services
- Conservation of Biodiversity
- Environmental Impact Assessment

The participants included students and lecturers from colleges in Kozhikode; representatives from NGOs and educational and research institutions. In all, about 35 participants attended the morning sessions and 75 attended the afternoon session. The workshop was inaugurated by Dr. V. S.

Ramachandran, Director of Regional Science Centre & Planetarium. Three knowledge sessions were organised as below:

- Valuation of Ecosystem Services - key resource person Dr. V. S. Vijayan, Former Chairman, Kerala State Biodiversity Board;
- Conservation of Biodiversity - key resource person Dr. Mohammed Jafar Palot, Scientist of Zoological Survey of India, Kozhikode & Secretary, Malabar Natural History Society; and,
- Environmental Impact Assessment - key resource person Dr. S. Sankar, Retd. Scientist, Kerala Forest Research Institute.

The SUS Malvan team organised a few community discussions with local leaders and the local government to share the findings of the ecosystem studies and dependence studies undertaken as part of their earlier work. These studies were related to the dependence of people on creeks for fishery and tourism and the problem of siltation of the creeks. A presentation and discussion was also conducted on the need for and procedures of the constitution of Biodiversity Management Committees and the preparation of biodiversity registers. Information about diversity of fish and other marine fauna was collected with the help of school students. Five schools participated in the activity. The Chairman of Kanya Shala, Malvan (girls school) had requested Team SANGAM to set up an information facilitation centre in his school and has provided a space for organising activities related to coastal documentation and environmental education. Posters for an exhibition have been prepared and are being tested with students. These posters will be displayed in the Information and Facilitation

Centre, Kanya Shala, Malvan. The exhibition will be open to all schools.

10.1.1 SUS- Facilitators' Development Programme

This programme was conducted in June 2014, as part of the SUS collaborative project of SWEDESD, CEE, ICLEI and Centre for Environment Planning and Technology (CEPT) University, and also as part of the programme under the UNESCO Chair on Education for Sustainable Development and the Human Habitat. The aim was for participants to acquire capacity and competence in facilitating multi-stakeholder processes. The participants were introduced to methods for initiating, maintaining and successfully concluding collaborative learning and multi-stakeholder processes under conditions of complexity, uncertainty and controversy. These include: change theory, inquiry-based learning, systems thinking, valuation role play, critical friends analysis, power analysis, learning history mapping and group facilitation. The course methods included practical exercises, group and individual assignments and exercises, and reflections among participants. The course draws on a selected set of theories related to learning, facilitation and governance. The main reference is the Inquiry-based Approach Handbook developed by SWEDESD based on experiences in a professional training programme involving multi-stakeholder teams in cities working on issues of ecosystem services and poverty alleviation. There were 28 participants, working in teams, including the SUS city teams, and from specific programme and project teams from ICLEI and CEE.

10.2 Strengthening Green Federalism in Urbanising India

Taken up with support from the Hanns Siedel Foundation, this programme aims to enhance participatory governance in urban areas, especially focusing on linking citizens participation in identifying priorities for the city, municipal budgets and environmental sustainability. A pilot initiative is underway in Pune where a form of participatory budgeting has been in operation for the past several years.

In 2014, a team of community facilitators was identified and oriented, especially drawing upon the Inquiry-based Approach and facilitation tools and experiences from the SUS programme. This team of facilitators experimented with introducing community discussion-based identification of suggestions for the municipal participatory budget.

Studies of the municipal budget in the sectors of waste, water, biodiversity, energy and education were also initiated to assess the extent to which the budget reflects the policy and programme priorities of the particular sector.

A workshop was conducted with a citizens group to review the current and ongoing processes of the participatory budget in Pune, and to suggest ways to strengthen it. The main recommendations from the workshop were to add components of community based needs assessment, local planning and social auditing.

10.3 PCMC BRTS Promotion and Outreach Programme

The Pune-Chinchwad Municipal Corporation (PCMC) s Bus Rapid Transit System (BRTS) promotion and outreach programme aims at

providing 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 and 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 the 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.

10.4 Panel Discussion: Participatory Governance and Smart Cities

A Panel Discussion on Participatory Governance and Smart Cities was organised on September 27, 2014 at CEE Ahmedabad, as part of the workshop Dialogue on Strengthening Participatory Governance in India . The event was supported by the Hans Seidel Foundation. The panellists were Shri

Kirtee Shah (Founder Trustee and Hon. Director, Ahmedabad Study Action Group), Dr. Bhargav Adhvaryu (Associate Professor, Head, Doctoral Office, CEPT University) and Smt. D. Thara, IAS (Chief Executive Authority, AUDA); the discussion was chaired by Shri Kartikeya Sarabhai (Director, Centre for Environment Education).

Shri Sarabhai opened the discussion introducing the need for a review of the development paradigm of urban areas, given that over the last century, the form of urban areas has been increasingly shaped by motorised transport. There is also immense contribution from informal livelihoods in developing our country's cities, which need support and strengthening. He raised some questions: What can we learn from the experience of urbanisation in the West? What can be the role of ESD in shaping the thinking about Smart Cities and participatory governance in Smart Cities? Smt. Thara spoke about the need for handling multiple perspectives of different stakeholders in relation to urban issues, and especially about different conceptions of Smart Cities. Dr. Bhargav Adhvaryu stressed that the basics of data and information need to be in place for the idea of Smart Cities to be realised. Citizens participation increases if information is easily available. Shri Kirtee Shah drew attention to the larger trends of population growth, the impact and relationship of urban areas to rural areas / regional context, the changes in economic structures which drive urban growth and the challenges of sustainability in relation to these. The need for inclusive development and the challenge of managing informality are two critical areas, he opined.

The discussion that ensued brought out the need for having faith in our societal

characteristics and checks and balances, potential of ICT in enhancing information availability and participation, the need for viewing participation in both a structural and procedural manner, about citizenship and the agency of marginalised segments, and weaving all these aspects within a systems view of urban areas, urbanisation and Smartness .

10.5 Capacity Building of ULB officials on Urban Climate Change Resilience – Eastern Regional Hub

The National Institute of Urban Affairs (NIUA) is a premier institute for research, training and information dissemination in urban development and management, and is supported by the Ministry of Urban Development, Government of India. NIUA is currently implementing a project on Urban Climate Change Resilience (UCCR) supported by the Rockefeller Foundation and is involved in capacity building of municipal officials in UCCR in different regions of the country through four regional institutions (RI). In the eastern region, CEE Kolkata is the RI, coordinating the capacity building activities under this project.

CEE Kolkata conducted a Knowledge and Training Needs Assessment (KTNA) for the urban local body (ULB) officials of six cities to understand the need for capacity building in urban climate change and to develop effective training curriculum to address urban climate change concerns. The six eastern cities coordinated by CEE under the programme are Howrah (West Bengal), Siliguri (West Bengal), Jorhat (Assam), Muzaffarpur (Bihar), Ranchi (Jharkhand) and Cuttack (Odisha). The team

also attended the training programme for the regional institutes conducted by NIUA in Delhi in February 2015, in which the training curriculum, regional training challenges and constraints were discussed. The detailed analysis of the TNA of the six eastern cities was also presented by the team during this programme.

The eastern region capacity building workshop for ULB officials is scheduled to be conducted by CEE Kolkata during the last week of April 2015 at the Administrative Training Institute at Kolkata. The workshop will aim to create a better understanding of the urban climate change concerns and to help plan for service delivery in the changing climate scenario.

11.1 SWACHA Shale – Karnataka

In collaboration with UNICEF and *Sarva Shiksha Abhiyan* (SSA), CEE Karnataka implemented the *SWACHA Shale* (*School Sanitation, Water, Cleanliness, Hygiene and Action in Schools*) Programme in 64 schools of Solur Hobli of Magadi Taluk, Ramanagara District, with an emphasis on hand washing practices. The main goal is to reduce the risk of diarrhoea and therefore increase school attendance and enrolment, by motivating and sustaining the students hygiene behaviour, especially hand washing with soap, at critical times during their hours in schools. As part of this initiative, Hand Washing platforms with water connection have been constructed in the 64 schools in collaboration with the community. Teachers from all the schools were oriented on school sanitation and the importance of hand washing. Hygiene education camps were conducted for school children in all the schools. Regular monitoring and follow up were conducted and the five best schools were rewarded. A state level conclave for district level Zilla Panchayat Presidents was organised to showcase the success of this programme. Today, the *Swacha Shale* has become a flagship programme for SSA to propagate School Sanitation programme in the state.

11.2 Accelerating Rural Sanitation and Creating Enabling Environment for Open Defecation Free (ODF) Environment in District Balrampur of Uttar Pradesh

UNICEF in Uttar Pradesh has taken up a pilot project in five selected districts to achieve ODF in one Nyay Panchayat (NP) in each selected

district. This is an attempt by UNICEF to showcase how rural sanitation and ODF can be achieved in a way that it can then be replicated elsewhere. CEE Himalaya was given the district of Balrampur to by UNICEF for this work.

In consultation with concerned officials and stakeholders, CEE then identified Khardauri Nyay Panchayat of Shriduttganj Block. The identified NP consists of eight revenue villages, namely, Visambherpur, Vaibheet, Sahdeia, Chawaibujurg, Khardauri, Gulwariya, Devaria and Galibpur falling under five Gram Panchayats (GPs): Visambherpur, Vaibheet, Sahdeia, Chawaibujurg and Khardauri. CEE's area of operation, NP Khardauri, includes 14 government schools, 10 *anganwadis*, totalling to approximately 2476 households. There are six mosques each having one *madarasa* (the total strength of the *madarasas* being 1050 students) and five temples. The area is inhabited predominantly by the Muslim community representing about 60% of the total population.

The progress of rural toilets in Balrampur District, UP as per the UNICEF report *Water, Sanitation & Hygiene Programme Snapshot: 2013f*, shows negative growth during 2001-2013. About 18.5% of the *anganwadis* in the district do not have a toilet and 40.3% do not even have water; similarly, 2.6% schools are without toilet and 4.8% are without water. In Nyay Panchayat (NP) Khardauri there are a total of six *anganwadis*, all without toilet; there are 17 government schools, of which only nine have toilets. Under such circumstances, improving the status of rural sanitation remains a big challenge requiring specific strategies to address the key bottlenecks, that would reflect on the challenges in demand, supply and quality of home and institutional

toilets in villages, especially in weaker and vulnerable communities. CEE Himalaya conducted a number of activities during April 2014 - March 2015. The key achievements of the activities are as follows:

Project Launch: The project entitled Accelerating rural sanitation and creating enabling environment for Open Defecation Free (ODF) Environment^f was launched in NP Khardauri by CEE with the support of UNICEF on September 15, 2014. The basic objective was to build capacity and create mass awareness among the concerned stakeholders about sanitation and its side effects, and the role of stakeholders in successful implementation of the project. Their commitment for achieving the project goal within the time frame was requested on this occasion.

Total Sanitation Campaign: On September 20, 2014, CEE organised a Total Sanitation Campaign in the Government Primary School, Shahdiya, where more than 33 *anganwadi* and school community members participated. The key agenda was experience sharing on the importance of sanitation and health hygiene system. Hand washing was demonstrated to create awareness among the participants. Construction and use of appropriate child friendly sanitary facilities can be especially effective in reducing the incidence of diarrhoea. Schools, rather than homes, may be better locations in which to instil certain behaviours in children. Schools can also provide an arena where positive hygienic behaviours (like hand washing with soap before eating and after defecation) can become ingrained habits at a young age. Other positive behaviours like cutting nails and hair, regular bathing, brushing of teeth and washing of clothes, which are important to keep oneself

fit and disease free, were also highlighted during this campaign.

Orientation and Capacity building of Block Officials: A one day orientation and capacity building workshop was held on October 31, 2014 for 12 office bearers from five Gram Panchayats of NP Khardauri. CEE officials briefed them on the CEE-UNICEF ODF project and its implementation strategy. OD creates an unhealthy and unhygienic situation for the marginalized communities and affects their socioeconomic well being. The CEE coordinator discussed in detail about the baseline data collection schedule with the participants and requested them to complete the task within the said timeframe. Participants clarified their concerns on the given format and assured CEE that they would complete the task through door to door visit and ensure full participation of the rural community.

5-Day Community Led Total Sanitation Training Programme (CLTS): This workshop was held at UPTU Guest House, Balrampur from November 17-21, 2014. CEE, in collaboration with *Shramik Bharti* and with the financial support of UNICEF, organised this event in which the Chief Guest was Mr. G C Rajak, DPRO Panchayti Raj, Balrampur. There were 38 participants including ASHA & *anganwadi* workers, students, teachers, Gram Pradhans and villagers. Mr. Vinod Mishra of Knowledge Link shared the worldwide data on open defecation, and pointed out that more than 70 crore people in India are not using toilets. ODF implementation means to cut off oral faecal transmissions that cause diseases. CLTS involves facilitating a process to inspire and empower rural communities to stop open defecation and to build and use latrines, without offering any subsidies to purchase

latrine material. Through the use of PRA methods, community members analysed their own sanitation profile, including the extent of open defecation and the spread of faecal-oral contamination that affects every one of them. The CLTS approach ignited a sense of disgust and shame among the community, as they collectively realised the terrible impact of open defecation: that they quite literally will be ingesting one another's shit so long as open defecation continues.

Hudukah: *Hudukah*, an old traditional folk dance, was used as a tool to reach larger groups of people, to spread awareness and sensitise the community on the ill effects of Open Defecation, and to inculcate behaviour change. It was also an effort to revive such traditional art forms which are dying out. From January 16-23, 2015, seven days of *Hudukah* performances were organised in 13 different places in five Gram Panchayats of NP Kardauri, Balrampur. More than 3000 people watched the performances, which communicated the importance of using toilets, hand washing at critical times, solid and liquid waste management, cleanliness of the kitchen and courtyard, use of India Mark 2 (IM2) hand pumps for water for cooking and drinking purpose.

Teacher Training Workshop (TTW): A one day Teacher Training Workshop for the teachers of the local government and private schools, *madarsas* and *anganwadis*, on the issues of WASH was conducted on January 16, 2015 at Shriduttganj Block. Availability of toilet and water facilities and overall sanitation in schools, *anganwadis* and also at the household level were discussed. CEE team applied triggering tools to initiate participant discussion. With 50 participants, the resource persons for the programme were the

Programme Director of CEE Himalaya, Dr. Abdhesh Gangwar; Regional Sanitation Coordinator of UNICEF, Mr. O.P Mani Tripathi; Assistant Basic *Shiksha Adhikari*, Mr. Ram Shankar; A.D.O Panchayat, Mr. Gomti Prasad; and Veterinary Officer Dr. B.R Chaurasiya.

Masons' Training in Khardauri NP to build Cost Effective, Eco-Friendly Quality Toilets: During January 20-22, 2015, a three day Masons Training Workshop was organised at the Block Office, Khardauri. The key resource person was Mr. O. P. Mani Tripathi, Consultant, UNICEF, with CEE Balrampur officials also present at the event. Thirty masons were selected for training in consultation with *Gram Pradhans* and Block Officials. The aim of the programme was to make available trained masons in the area, so that good quality toilets can be constructed.

The training provided the masons with an opportunity to gain knowledge and skills in the construction of low cost and user friendly toilets, as well as the sources and availability of materials. Thus, the masons training would play a critical role in achieving the project's ultimate goal, which is to make the area ODF. During the training session, masons were educated on the correct techniques of constructing low cost toilets using locally available resources. Later on, a hands-on training session was also conducted under which six toilets were constructed by the trainee masons.

Puppetry shows: Puppetry was used as a medium for emotionally motivating and communicating the importance of practising WASH activities: like the five steps of hand washing; the socio-economic, cultural and environmental effects of open defecation; solid and liquid waste management; cleanliness in the kitchen and courtyard; use of India Mark

2 (IM2) hand pumps for drinking and cooking purpose; and safe disposal of a 0-2 year old children's excreta. Information on diseases caused due to open defecation, people friendly and low cost technology for toilet construction, and key people to contact for toilet construction was also communicated through this medium.

From February 11-17, 2015, puppetry shows were organised at 13 different locations of 10 different villages, with over 2391 people watching the shows. The inspiration behind organising this entertainment cum awareness programme was to sensitise the community towards the ill effects of open defecation and the importance of practicing Water Sanitation & Hygiene (WASH) activities in their day to day life. The puppetry shows moved the audience to critically think about the importance of sanitation, and the need to use toilets.

11.3 Daily Handwashing for an Ailment-free Life (DHaAL)

The aim of this project undertaken by CEE Northeast is to augment /create group handwashing facilities in the schools of three Education Blocks in Assam and develop systems for the operation and maintenance of WASH facilities in Schools

The objectives of the project were:

- To integrate the Three Star Approach in *Nirmal Vidyalaya Puraskar* (NVP) guidelines and roll out the award after orienting all the district NVP committees.
- To strengthen SSA WASH Cell with continuous support.

- To scale up WinS in Assam through development of a WASH in Schools module.
- To saturate Rani, Rampur and Kamalpur Education Blocks by installing / augmenting mass handwashing facilities in all schools.
- To orient students, teachers, SMC members, Mid Day Meal (MDM) cooks and Mothers Group members on WASH in Schools.
- To reach all the children in Primary Schools in Assam through extensive engagement with SSA and PHED.

CEE, in partnership with SSA Assam and UNICEF, is carrying out this project and the following activities have already been carried out.

- *Nirmal Vidyalaya Puraskar* Guidelines for the state of Assam have been developed.
- As a member of the WASH in Schools Working Group, CEE NE Coordinator is providing ongoing support to SSA's WASH Cell.
- Group Handwashing Stations (GHS) have been created in 200+ Schools in Rani, Rampur and Kamalpur Blocks in Kamrup District. By the end of the project, all primary schools in these three education blocks will be saturated with Group Handwashing Stations.
- Students, teachers, School Management Committee members, and Mothers Group members in 422 schools have been trained, oriented on WASH in Schools.
- The project has also supported the Multi Grade Multi Learning programme as well as the Reading Enhancement Programme of SSA.

Some of the project outcomes include:

- *Nirmal Vidyalaya Puraskar* Guidelines for Assam have been finalised.
- CEE has developed three different models of GHS that have been approved by the Government. The *Swachh Vidyalaya* Guidelines book includes designs developed by CEE.
- The GHS developed under DHaAL has been mentioned as an innovation by the Joint Review Mission on Mid Day Meal in 2015.
- GHS has been installed in 200+ schools.
- One International Learning Exchange and several National Exposure visits have been organised for the DHaAL project schools by UNICEF.
- DHaAL project is now being replicated in other states of India. Maharashtra has adopted the project including its name DHaAL.
- Due to the influence of DHaAL, SSA Assam is integrating group handwashing facilities in their new Mid Day Meal Kitchen design.

12.1 Demonstration of Sustainable Waste Management

12.1.1 Common Healthcare waste Appropriate Management Plant, Gulbarga

The Waste Management group of CEE is implementing a project Healthcare Establishment Waste Management and Education Programme (HEWMEP) wherein a Common Biomedical Waste Treatment Facility called CHAMP has been set up in Gulbarga city. The CHAMP Facility is in operation since May 2005. CEE CHAMP Gulbarga facility is collecting, transporting treating and disposing the collected waste of Gulbarga City healthcare establishments (HCEs) since eight years successfully.

CEE CHAMP covers 537 healthcare establishments of Gulbarga city totaling to about 3435 beds (including Jewargi and Sedam taluks). On February 28, 2015, CHAMP extended its services to the remaining four taluks of Gulbarga District i.e. Afzalpur, Chincholi, Aland and Chittapur, which cover 43 government HCEs. CEE has conducted **several** orientation programmes for medical and paramedical personnel of Gulbarga city and for taluka level officials in the reporting year.

Around 310 students and 22 faculties from medical and nursing institutions such as the KBN Medical College, MR Medical College, HKES BHMS College, HKES Nursing College, Syed Barey Degree College, and HKE S Dental College Kalaburagi, visited the CEE CHAMP facility during this year. Thus, apart from providing services to the healthcare establishments of Gulbarga city, it also serves as one of the best demonstration models for

students and visitors to develop awareness and knowledge on the operation of common biomedical waste treatment facility.

12.1.2 Nemiraj Memorial Demonstration Unit

The concept of Hand Made Paper (HMP) through recycling waste paper and Plastic Weaving (PW) has been popularised by CEE's Waste and Resource Management (WaRM) group, as a part of its mandate to address the reuse and recycling of dry waste from domestic garbage. Under this initiative, WaRM group established CEE-ERU i.e. CEE's Ecofriendly Reuse and Recycling Unit, especially for recycling of paper scraps and plastic carry bags.

The first CEE-ERU was established in Virajpet, in Kodagu, Karnataka and named Nemiraj Memorial Demonstration Unit (NMDU). The unit has been carrying out paper recycling and plastic weaving since 1999, providing employment to around 10 women.

Subsequently, through various CEE offices, plastic weaving units of CEE-ERU were also set up in Ahmedabad, Coimbatore, Delhi, Goa, Tirupati, 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 the Plastic Weaving Unit (PWU) was awarded the Plasticon 2005 Award on October 1, 2005 in Mumbai by the PlastIndia Foundation in the category of Innovation in Recycling Technology for its innovation of a Polyloom. The Polyloom is a plastic weaving handloom that helps reuse and recycle discarded plastic bags (polybags).

The NMD unit including the handmade paper equipments and polybag weaving looms is being transferred to a local not for profit organisation who will be using it to provide vocational education to especially abled children of the region. CEE will handhold the organisation through setting up the unit in their premises and training the children and women on using the equipment, so that it can be run successfully.

12.2 Source Book on Solid & Liquid Waste Management in Rural Areas in India

The Ministry of Drinking Water and Sanitation (MDWS), Government of India had granted a project to the waste management group of CEE to prepare a source book on Solid and Liquid Waste Management in Rural Areas in India. The sourcebook aims to serve as a handbook and manual for Panchayati Raj Institutions and key individuals in rural areas to create mass awareness about the health and environmental impacts caused by improper handling and management of waste. It also aims to educate all stakeholders about the need for and importance of proper waste management systems, with due emphasis on their relation with health and environment. It strives to bring about a change in the thinking and perceptions of people in the rural areas regarding the value of hygiene and sanitation through solid and liquid waste management, by discouraging open defecation and encouraging construction and use of individual/ group toilets in all villages, while also 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 of the source book

written by CEE. The sourcebook contains chapters on integrated solid waste management, waste recycling, and simple technologies like 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 community level. Some case studies from different parts of the country have been included in the sourcebook; the eco recycling unit of CEE at Kodagu is also mentioned as one of the case studies on up-cycling of plastic waste.

Various revisions as suggested by the Ministry have been incorporated by CEE in the sourcebook and the final book has been delivered in print ready format to the MDWS. The book will be released on April 21, 2015, by the Ministry during a national workshop on solid and liquid waste management in rural areas.

12.3 Compendium of Good Practices in Urban Solid Waste Management in Indian cities

CEE, in association with Urban Management Consulting Pvt. Ltd. (UMCPL) Ahmedabad, provided consultancy to the National Institute of Urban Affairs (NIUA) for documentation of Good Practices of Municipal/City level Solid Waste Management in Indian cities. The documentation was to include best practices in planning, practices, projects and innovations in improving the quality and efficiency of solid waste management in Indian cities. The work on documentation began in 2014.

The project was a part of PEARL (Peer Experience and Reflective Learning) initiative

of the Government of India, which provides a platform for deliberation and knowledge exchange to Indian cities and towns under the JnNURM and is established under the National Institute of Urban Affairs (NIUA), New Delhi.

An inventory of 74 case studies was prepared from all over India. After peer review, 11 case studies were selected for detailed study (six in snapshot format and five as detailed reports). The study required primary data collection for assessment of methodology, regulatory/

institutional/financial arrangements, capacity building efforts and technology development. This was completed through field visits and interviews over telephone.

The Compendium was released during a National Workshop organised by the NIUA for Sharing of Urban Good Practices documented about five themes (Water Supply and Sanitation, Solid Waste Management, Urban Transport, Urban Reforms and Cultural Heritage) on January 20, 2015 at Gulmohar Hall, India Habitat Centre, New Delhi.

13.1 VIRASAT: Documenting and Conserving our Living Heritage

CEE had initiated the project *VIRASAT: Documenting and Conserving our Living Heritage* in collaboration with Gujarat Biodiversity Board (GBB) in 2011. The main aim of the project is facilitation of the formation of Biodiversity Management Committees (BMC) in each Gram Panchayat (GP), orientation of BMC and preparation of People's Biodiversity Register (PBR).

During the first phase of the project, CEE had formed 10 BMCs and facilitated preparation of PBRs in these villages. The final PBRs have been submitted to GBB. CEE has also facilitated opening separate bank accounts for receiving the Local Biodiversity Fund for all 10 the BMCs, to which an initial fund of Rs. 15,000 was transferred towards basic office setup. These BMCs are now functioning as statutory bodies under the Biodiversity Act in these villages. CEE also facilitated preparation of Village Biodiversity Conservation Action Plan in all the 10 villages to be submitted to GBB for financial support and taking action towards conservation of local biodiversity.

In continuation with the above project, during reporting year, as part of *VIRASAT ~ II*, CEE was given the task of facilitating BMC formation and PBR preparation in another 25 villages, nine villages from Jasdan Block 16 from Vinchhiya Block of Rajkot District.

The major task undertaken was to survey and collect data related to village biodiversity by involving local experts, BMC members, the community and CEE team. Through extensive surveys, People's Biodiversity Registers (PBR) have been prepared in the 25 project villages, which broadly covers aspects like agro-biodiversity, domesticated animals, wild

biodiversity, medicinal plants, grasses, trees, climbers, wild animals, aquatic biodiversity and others. PBR also documents traditional knowledge related to local biodiversity.

Some key activities undertaken as part of the project during the year include:

- Orientation and Capacity Building of newly formed BMC members regarding the Biodiversity Act, Roles and Responsibilities of BMC, Understanding PBR and its importance, fund management, understanding biodiversity concerns of the area, and preparing Biodiversity Conservation Action Plan. Such trainings were conducted for all 25 BMCs.
- A dialogue on Biodiversity was organised to bring all BMCs together and initiate a process of exchange of knowledge and experience through lateral learning. Exposure tours and participation in organic fairs as well as in a workshop on organic farming policies were also organised for BMC members. All this helped in making BMC members more aware of local biodiversity, and the need to identify and document the same.
- To collect information about local biodiversity, the concept of *Virasat Yatra* was introduced. CEE team, village community members, BMCs, local and external subject experts, together explored the village to document biodiversity and the associated traditional knowledge. Such *Yatras* were organised twice in a year in all the 25 villages to document seasonal variation in local biodiversity.
- To create awareness among school children, teachers and the village community about local biodiversity,

several innovative approaches were used. An exhibition on medicinal plants was taken to all 45 schools of the project villages. This exhibition was also set up at public places in all the project villages for community members. This created a lot of enthusiasm about the project and its objectives, and also created awareness among people about local biodiversity.

- Some innovative approaches were also initiated to seek better community participation and make PBR a people centric document in the true sense of the term. One such idea was to give school children a post card with the name of a species on it and ask them to find out as much of details about it as they can. Thus children would discuss about it not just among their peer group but would also try to get information from adults in their family and neighbourhood. This way the larger community could be involved in the process. Another idea tried was that once a list of existing biodiversity was prepared through various methods including community involvement, it was put up at prominent public places, and community members were asked to give their comments and add any local species if found left out. This way, it could be ensured that the list is exhaustive and everyone in the community has a chance to contribute. This process actually helped in adding a few names that were not listed earlier. Considering CEE's experience in formation of BMCs and preparation of PBRs, CEE Jasdan was also invited as a resource agency by other NGOs.
- With a view to creating awareness about the importance of local traditional crop varieties and agro-diversity, seeds of five

different traditional varieties of pearl millet were distributed among the BMC members. Most of them achieved good results with these seeds, which were given free initially with an agreement from the farmers to give back half to one kilogramme of seeds after the crop was harvested, which would be used for further distribution. Through this, a few vanishing traditional varieties of seeds are now back in circulation and use. Moreover, plantation of medicinal plants, traditional horticultural species and other trees was promoted through sapling distribution. More than 20000 saplings have been planted as part of the project during the year.

13.2 Education in Biodiversity Conservation

Background

United Nations Convention on Biological Diversity (CBD) at the 10th meeting of Conference of Parties (COP) to CBD, at Aichi Prefecture in Nagoya in Japan, spelt out a 10 year strategic plan. The plan was followed by 20 measurable targets, known as Aichi Biodiversity Targets, which are to be achieved by 2020. CBD has set education as one of the targets.

By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably. – Aichi Biodiversity Target 1

In this context CEE has signed a Memorandum of Understanding (MoU) with the CBD Secretariat to cooperate, collaborate with and facilitate the educational efforts of CBD in the promotion of Aichi Biodiversity Targets. Following the MoU, CEE has developed and implemented a number of programmes.

13.3 Green Wave 2014 - IDB Celebrations in India

Green Wave is a global biodiversity campaign to educate children and youth about biodiversity through tree planting. CEE South promoted and popularised the Green Wave-India campaign on May 22, 2014, marking the International Day for Biological Diversity (IDB). Students, teachers, government institutions, NGOs and business houses participated in the campaign. The plantation activity was carried out in a range of habitats like coasts, Western Ghats, Himalayas, arid and semi arid parts of the country.



Around 200 schools participated in the campaign. The picture above shows the participation by different groups on this occasion. Green Tree represents schools, Green Pins represent NGOs, Brown Pins represent private companies, Purple Pins represent government houses, and Blue Pins represent public outreach organisations.

The diversity of trees varied from deciduous to semi evergreen to evergreen trees such as Teak (*Tectona grandis*), Neem (*Azadirachta indica*),

Pongamia (*Millettia pinnata*), Coconut (*Cocos nucifera*), Mango (*Mangifera indica*), Iron wood (*Mesua ferrea*), Tamarind (*Tamarindus indica*) and Banayan (*Ficus benghalensis*) which have a range of uses like medicine, furniture and food were planted. It was noteworthy to witness 40000 members of women self help groups participated from Tamil Nadu in the campaign planting about 15000 local tree saplings.

As part of campaign, CEE North conducted the activities in Uttar Pradesh and Bihar, where, in spite of the holidays in schools, the network of teachers, master trainers and NGOs took part in the campaign. About 40 schools participated from Uttar Pradesh.

13.4 Sustainability Education Initiative – A Tree Planting Campaign of Earthian Foundations and Paryavaran Mitra

CEE South designed and implemented a biodiversity education campaign Sustainability Education Initiative along with Paryavaran Mitra and Earthian Foundations of WIPRO. The campaign was built around tree planting activity and creative activities in schools for students of class 5, 6, 7 and 8.

The objectives of the campaign were (a) to inculcate a sense of appreciation among school students about diverse life forms and the biodiversity around them; and (b) to inspire and engage them in the protection of biodiversity for sustainability through activities.

The campaign duration was of six months, starting May 22, International Day of Biological Diversity, and concluding during the Wildlife

Week in India during October 2-8. Schools were encouraged to conduct activities coinciding with environmentally significant days like World Environment Day on June 5, World Day to Combat Desertification on June 17, and so on.

As a part of the campaign, two posters on biodiversity education were developed in English, Hindi, Telugu and Tamil languages. One was a poster on The Living Variety and the other a brochure about the Campaign which could be used by teachers to link the concepts covered in the school curriculum and performs creative activities with students. This helped students in learning about the relevance of local trees and natural resources and caring for them.

These were disseminated to 5000 schools across the country. Each participating school was required to perform some activities and report about them. These activities included (a) Plantation of five native/indigenous tree saplings in the school premises; (b) Paintings, Photography, Slogan writing and Poem writing on the theme of life forms, that attract the students.

On completion of the campaign period and conclusion of all the activities, each school was required to submit a report of the activities conducted, two photographs and a maximum of three best entries from the competitions conducted in the school. More than 6000 entries were received from across the country. CEE Coordinators selected and awarded the best three entries at state level and national level. The criteria for selection were theme depiction, creativity and presentation for paintings and poems and message conveyed for the slogans.

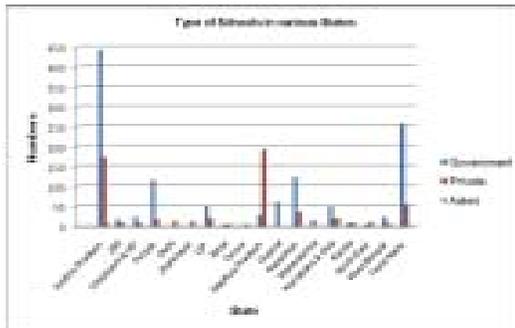
The campaign was facilitated in 21 states across the country. CEE offices at regional, state and field level coordinated the activities in the schools. The campaign received participation from government, aided and private schools and also special schools formed by governments like Kasturba Gandhi Balika Vidyalaya (KGBV) Schools in Karnataka and Uttar Pradesh, which is a residential school network for girls. In Rajasthan, the activities were carried out through the strong and active Scout and Guide Network, while in Madhya Pradesh; the activities were conducted by involving the state nodal agency The Environmental Planning & Coordination Organisation (EPCO) which is actively engaged in Teacher Training and Teacher Education.



Plantation activity carried out at a school in Punjab

The graph here shows the details of the type of schools which participated in the campaign from various states. Maximum participation came from government schools in most states, except Madhya Pradesh where more private schools participated.

As an outcome of the campaign, CEE South was successful in facilitating activities in more than 1800 schools across the country. About



144 different tree species were planted in various schools. The campaign helped increase carbon stocks by overall plantation of more than 2400 tree saplings.

13.5 Sustainability Education Initiative

CEE Himalaya

For this campaign, CEE Himalaya organised a three day orientation programme during September 11-13, 2014, in three Blocks of Uttarkashi District - Dunda, Chinyalisaur and Bhatwari Blocks - on the topic Sustainability Education Initiative, in collaboration with the Education Department, which focused on



Participants engaged in a group exercise

creating awareness among the participants about the rich biodiversity on mountains and issues related to them. The aim was to develop meaningful sustained education practices and behaviour patterns in school community education. Mr. Sumit Verma, CEE Himalaya, using various participatory tools, explained the objectives of the programme to the school community. He added that the best schools would receive the Earthian Award based on their submissions on biodiversity conservation. The other key speakers were Ms. SP Rodolla, Block Education Officer (BEO) Dunda; Mr. Anil Kumar, BEO Chinyalisaur; and Dr. Kamal Dhari, BEO Bhatwari. More than 600 saplings of 50 species were planted in 98 schools of Uttarkashi under this campaign. More than 51 schools submitted their campaign reports in the prescribed format to take part in the national level competition. The best performing school in the state was given an award, and all participating schools were given certificates of participation.

CEE Kolkata

CEE Kolkata facilitated this programme in schools of West Bengal, where too plantation of indigenous species was followed by creative competitions. Schools that had no space to do a massive plantation planted the species in community parks and gardens in their neighborhood. The campaign gave the students an opportunity to connect with nature and think about the various life forms.

CEE Delhi

Students of classes 5-8 from 13 different schools in Delhi/NCR were engaged in various activities like plantation of local saplings, poetry and slogan writing, painting and photography competitions on the theme

Life/Life Forms . Under each category, three best entries were shortlisted and awarded as the regional winners from Delhi/NCR.

13.6 Conserving Highly Endangered Tigers in North East India through Awareness (CHETNA)

The overall goal of the project was to develop and deliver a tiger conservation education programme in Assam in partnership with the Education Department which would directly benefit 100 schools and reach out to about 6000 schools through the Eco-club network.

The objectives of the project are:

- Developing a Teachers Manual on Tigers
- Organising stakeholder meetings in all the project locations to facilitate community participation in conservation efforts
- Developing a poster on tiger conservation and disseminating it through the NGC School network in Assam (about 6000 schools)
- Training of teachers from 100 Schools around Kaziranga, Orang and Dibru-Soikhowa National Parks
- Training of 20 NGO members from around Kaziranga, Orang and Dibru-Soikhowa
- Entering into an MoU with 100 schools for Tiger Conservation activities and supporting activities through cluster model in schools around Kaziranga and Dibru-Soikhowa
- Organising five community outreach programmes involving school children, teachers, NGOs and the general public

Activities:

- This programme has been implemented in five school clusters, namely, Dibru Saikhowa East, Dibru Saikhowa West, Kaziranga North, Kaziranga South and Orang clusters, with an NGO involved in each cluster as a local support and monitoring body.
- With the help of the trained NGO members, the CEE resource team trained 144 primary, middle and secondary teachers from schools in the fringe areas of the three selected Protected Areas, to effectively implement the project in the schools and fringe villages.
- Two interactive training modules were developed and adapted to local conditions - one for teachers training and another for school activities.
- About 105 student awareness programmes were carried out in schools.
- The following resource materials have been developed to support the programme and copies distributed among the project clusters:
 - o A poster on Tiger
 - o An educators manual - *Bipanna Dhekiyapatiya*
- Inter school events, namely *Baagh Samvad* (Tiger Dialogues), were organised in all the five clusters.
- Five training programmes for follow up with teachers of the project schools were organised at the following locations in partnership with the cluster NGO partners

| Training location | School cluster | NGO partner |
|--------------------------------|-----------------------------|---|
| Silbori (Darrang District) | Orang Cluster | <i>Aitijya</i> (The Heritage) |
| Biswanath (Sonitpur District) | Kaziranga North Cluster | Nature s <i>Banyapran</i> |
| Numaligarh (Golaghat District) | Kaziranga South Cluster | Society for Environment Education in North East |
| Tinsukia (Tinsukia District) | Dibru-Soikhowa East Cluster | Ed-en |
| Dibrugarh (Dibrugarh District) | Dibru-Soikhowa West Cluster | Wildlife Conservation & Study Centre |

Outcomes:

- MoUs were signed with 100 schools for project implementation. This project could reach out to 105 schools and train 144 teachers. As per the MoU, schools will continue with the conservation education even after the project duration is over.
- The materials developed under the project, i.e. the Educator s Manuals and two posters (Assamese and English) have been distributed to all project schools which have helped to create awareness in the project areas.
- During the project, it was found that many students belonged to families where their elders were engaged in some or other kind of poaching or tree felling activities. The awareness programmes have made these children understand the value of conservation. It is hoped that the project will immensely help the conservation movement in the future.

- Five partner NGOs have been capacity built while collaboration was developed with 21 organisations.
- A strong base of 20 volunteers has been created in the area who will continue to spread awareness even after the project is over.
- Personnel of the Education and Forest Departments are now better motivated to offer necessary support to the conservation movement.
- Six *Bagh Samvads* were organised in the clusters.
- Media people have been involved in many of the activities through broadcasting of radio programmes

13.7 North-East India Asian Elephant Conservation Project

The aim of the project is to develop a sustained Asian Elephant Conservation Programme aimed at resolving human-elephant conflicts in Northeast India.

The objectives of the project are:

- To develop an Asian Elephant Conservation programme the schools in the fringes of eight elephant reserves of the North Eastern states
- Trans-adaptation of the Teacher s Handbook NATURESCOPE: Endangered Elephant into Bodo language and its dissemination in schools under the project in Bodoland Autonomous Development Council Areas in Assam
- To train around 200 middle school teachers from 160 schools to help them carry out the conservation education programme

- To support teachers in the implementation of education activities on Asian Elephant within schools (160) and also reach out to children and families of nearby elephant reserves and fringe village communities
- To conduct Project Haati Meet by ensuring community participation in mitigating human-elephant conflicts, and planning and implementation of long term elephant strategies
- Conduct student action projects and measure the impact of elephant conservation by systemic evaluation of information and attitudinal changes brought about by the project through pre and post project Knowledge, Attitude and Practice (KAP) analysis
- To build and strengthen linkages with state government departments of Education and Forests

Activities:

- NATURESCOPE: Endangered Elephant manual has been trans-adapted into Bodo language and 500 copies disseminated, while 300 copies of the English version has also been distributed.
- Capacity building of the representatives from the following cluster NGOs has been conducted

| S. No | NGO in-charge | Area Covered | State |
|-------|--------------------------------------|----------------------------|---------|
| 1. | Prayas Teliamura | Kalyanpur and Teliamura | Tripura |
| 2. | Society for Environment Education of | Golaghat and Karbi Anglong | Assam |

| | North-East (SEENE) | | |
|----|--|--|-----------|
| 3. | Ed-en | Bogapani and Golai-Pawai, Tinsukia | Assam |
| 4. | Nature s Bonyapran | Nameri, Behali and Gohpur of Sonitpur District | Assam |
| 5. | Green Manas | Chirang-Ripu Elephant Reserve Forest | Assam |
| 6. | Centre for Environment Protection CEP) | Ngengpui Wildlife Sanctuary (Lawngthlai) and Dampa Tiger Reserve (Mamit) | Mizoram |
| 7. | Naga Hindi Vidyapeeth | Tusom, (Ukhrul) | Manipur |
| 8. | Integrated People for Tourism and Conservation (IPTAC) | West Garo Hills and South West Garo Hills | Meghalaya |

- Training of 200 teachers from 160 project schools have been conducted with help from Forest and Education departments.
- Cluster activities were conducted throughout the year in the selected schools.
- Two Asian Elephant Education Resource Centre (AEERC)s have been formed in Behali (Assam) and Teliyamura (Tripura).
- Eight Haati Meets were organised in eight locations which created opportunities for

the NGOs, experts, teachers, students and community to come together and focus on elephant awareness, peer-to-peer learning about elephants, its habitat and the need for conservation.

Outcomes:

- MoUs were signed with NGOs for all eight clusters.
- About 178 teachers were trained on elephant conservation education.
- Awareness level of students in 160 project schools was increased.
- NATURESCOPE: Endangered Elephant manual has been trans-adapted into Bodo language and 500 copies disseminated; eight Haati Meets were organised; two AEERCs were set up.
- A change in perspective was the major outcome of the project. In most places, the general belief was that elephants are animals that raid their crops. But the project has helped people to understand more about elephants and the need for conserving them.

13.8 Ganges River Dolphin - Conservation Education Programme

The National Mission for a Clean Ganga (NMCG) of MoEFCC has granted CEE a Phase II project for extending the education and awareness initiative on the Ganges Dolphin. This project, worth Rs. 1.28 crore, will have activities spread in the dolphin habitat states of Uttar Pradesh, Bihar and West Bengal. CEE has also been nominated as an Executing Agency of NMCG under World Bank guidelines. A team visit of NMCG to

Ahmedabad was organised for an Inception Workshop to initiate the project. During the latter part of the year, NMCG was shifted to the new Ministry of Water Resources, River Development and Ganga Rejuvenation, with this project also falling under it.

Based on the experience during Phase I, CEE is implementing Phase II of the Ganges River Dolphin programme with support from the National Mission for Clean Ganga, National Ganga River Basin Authority under Ministry of Water Resources, Ganga Rejuvenation and River Development. The Phase II of the project is titled Educating Schools and Community for sustainable actions for conserving habitat of Ganges River Dolphin along Ganga River Basin.

As part of the school component, CEE North is working on 20 locations in the Ganga Basin covering 10 locations each in Uttar Pradesh and Bihar and under the community initiative CEE North is working with five villages each at Bahraich and Bettiah in both States. The community interventions being taken up under the project are briefly described below.

13.9 Community Interventions

Project Field Office Set Up: In 2014, CEE North opened a field office in a village of Bahraich District in Uttar Pradesh for its community initiative under the Ganges River Dolphin Conservation Education programme. CEE Bahraich team organised a community meeting on the occasion of World Environment Day in village Baundi of Bahraich, where fisherman, farmers, youth and other members participated and shared their experience of living alongside the river. A discussion on the status of Ganges river dolphin - locally known as *Souns* was held with community members where various incidences and issues related

to the survival of the species were shared. About 25-30 community members who participated in the programme were also briefed about the importance and theme of the day. An office was also established in Bettiah, West Champaran, for implementation of the community component in five Gram Panchayats.

Village level Survey and Community Meetings: CEE North and the field office teams conducted a detailed survey to identify dolphin project villages. They visited over 11-12 Gramchayats and interacted with community members and the Gram Pradhan, before selecting the five pilot Gram Panchayats for the project. Five riverside Gram Panchayats each in Bahraich and Bettiah Districts of Uttar Pradesh and Bihar were selected based on the prevailing issues with regard to the river and the dolphin. A detailed survey consisting of two parts ~ a village level survey with the help of village heads and block level officials through community meetings and a survey of households to assess the socio-economic and environmental situation ~ were conducted in the selected villages. Several rounds of community level meetings were held for the team to familiarize themselves with issues at the village level. Based on the initial findings, a meeting was held with the Rural Programme Group team to identify the needs of the fisherman and farmer communities along with sustainable development interventions for the village.

Need Assessment Visit to Dolphin Villages: The RPG team in Ahmedabad conducted a half day orientation session for the CEE North Dolphin Project team in February 2015, wherein they shared their experience of working with rural communities in different areas. The team also went on a field visit to Halwad office to understand the concept of

sustainable campus and also visited villages to learn from the activities undertaken by community groups. A counter visit by the RPG team to the dolphin villages to conduct a rapid needs assessment was also planned during this visit.

Subsequently, the RPG team visited the dolphin locations and spent 7-8 days during February 24 to March 2m 2015, interacting with the community members in each of the selected villages. The visit focused on understanding the socio-economic condition, analysing practices of farmers and fishermen and identifying thrust areas for sustainable livelihoods including alternate options. The team came up with recommendations and an action plan to be implemented in the dolphin villages. Key areas identified for interventions are water and sanitation, riverbed farming, organic farming practices, preparedness of community for flood and drought situation, alternate livelihood options and skill based trainings.

Youth Volunteer Selection: Youth play a vital role in transforming society, and hence involving youth in community led actions and campaigns are essential. In the conservation of Ganges river dolphin too, youth engagement has been included in an effort to sensitise the community on conservation of the environment and biodiversity, and to address community empowerment through project interventions. Identification of youth volunteers in project villages is envisaged as one of the key activities. The youth volunteer would be responsible for generating awareness on the importance of environment and river biodiversity; for this, he/she would constitute an eco group/committee within the village, network with various stakeholders and community groups (farmers and fishermen), help improve hygiene

and sanitation, and in general act as a change agent.

The CEE field team, at both the dolphin locations in Bahraich and Bettiah, interacted with several youths in community meetings to find out suitable and interested candidates for volunteers. Youth volunteers have been identified for nine project villages and the process is going on for the last one.

Ecotourism based activities: CEE team identified a location ~ Katarniaghat Wildlife Sanctuary in Uttar Pradesh - to develop and promote dolphin education focused ecotourism, with the help of eco-development committees (EDCs). CEE team held meetings with EDC members and local youth to assess needs and enlist possible interventions.

13.10 Prakriti Bus - A Mobile Exhibition on Biodiversity in Uttar Pradesh

The United Nations has declared the current decade (2011-2020) as the Decade on Biodiversity to generate awareness around the world on its status and conservation. In response to it, India has chaired the Conference of Parties (COP 11) to the Convention of Biological Diversity (CBD) during 2012. In the light of this, the Department of Science & Technology (DST) and Ministry of Environment, Forests and Climate Change (MoEFCC) had launched the revamped iconic mobile Science Express as Biodiversity Special (SEBS) train in 2012. The key thrust areas of the train include biodiversity of India, climate change, biogeographic zones, myriad ecosystems, and their importance to the environment and human society.

Since 2012, this train has visited 7-8 locations in Uttar Pradesh and received tremendous response from general visitors, school students and teachers. But the Science Express train has its own limitations in terms of outreach. Looking at the overwhelming response SEBS received in Uttar Pradesh, CEE North proposed to work closely with the University of Lucknow (partner of RCE Lucknow) and UP State Biodiversity Board, to create a similar biodiversity awareness and conservation initiative in Uttar Pradesh by running a mobile exhibition in a bus with a focus on Biodiversity of Uttar Pradesh. This mobile educational resource centre is aimed at reaching out to children, teachers, youth, media and the general public.

With support from its partners, CEE North initiated the biodiversity education project by developing a mobile exhibition bus *Prakriti*. *Prakriti* is a unique exhibition showcasing the rich biodiversity of the state including forests, grasslands, wetlands, rivers, agriculture, and others. It is open to all and the visit service free and intends to benefit school students, teachers, youth and community members in the urban and rural areas of Uttar Pradesh. This mobile bus runs on Compressed Natural Gas (CNG), which also helps to create awareness about this clean fuel. The *Prakriti* bus was developed in Ahmedabad and transported to Lucknow.

Development of the Exhibition: CEE's studio division at Ahmedabad with its in house production unit is equipped with designing, developing and fabricating facility. CEE North worked on the biodiversity exhibition with designers at the CEE studio in Ahmedabad. Pictures and high resolution photos were obtained from CEE's photo bank, UPSBB, the Zoology department of University of Lucknow

and other institutions in the state. To ensure wider reach and communicate biodiversity education effectively among different age groups in society, the information panels and exhibits in the bus and the on the spot activities are designed in Hindi language.

The thematic plan of the exhibition in the bus was based on ecosystem themes. The bus has been divided into six units with three panels in each, thus totaling 18 panels. Four link panels connected each unit to maintain the flow of information. While the CEE team conducted the research for developing content by collecting secondary data on the theme of each unit, the information and technical information were cross-checked with experts and scientists for scientific accuracy of the content and information.

Formal Launch of Prakriti Bus: The mobile exhibition bus was launched on August 2, 2014 by the Hon ble State Minister for Vocational and Skill Education at Lucknow. The launch event began with a poster making competition on the theme of *Biodiversity: Our Wealth, Our Responsibility*. More than 220 students from 14 schools participated in this competition. Ribbon cutting and release of balloons marked the formal launch of the bus. The CEE team the explained the bus panels to the chief guest and other dignitaries.

At the formal function following the launch, CEE made a presentation on the importance of biodiversity conservation education and the use of the bus as an educational resource. The Minister addressed the children, talked about the power of thinking and appealed to the students to think about biodiversity and its correlation in our lives beyond boundaries. The Principal Secretary, Environment and Forest, Government of Uttar Pradesh spoke

about the necessity of spreading knowledge and information on biodiversity in the present scenario. Winners of the poster competition were given prizes at the end of the event.

Mobile Exhibition on the Move: After the formal launch, CEE North team identified a team of communicators for the bus finalised the visit schedule. The bus plans to reach out to 5-6 districts starting with Lucknow District. This innovative mobile exhibition has received an overwhelming response from the schools and community wherever it has gone. So far, the bus has travelled to four districts - Lucknow, Barabanki, Kannauj and Unnao ~ and covered over 178 schools and inter colleges. About 83,044 visitors including students, teachers, community members, officials, media, youth and others have visited the exhibition. Daily records of visitors, distance travelled and feedback obtained are maintained in a register and shared with the partners.

13.10.1 Lucknow District:

In Lucknow District, after the formal launch, the bus has covered over 109 schools and colleges. A formal welcome ceremony was organised at Lucknow University where the Vice Chancellor was the chief guest. The bus saw good participation and visit by youth during its stay in the University campus. Besides educational institutions, the bus has also covered community places, other institutions and culturally significant *melas* and fairs (where the linkage between biodiversity and culture was highlighted), and has also been invited to state level workshops, as well s institutions during school vacations and holidays. Over 42501 visitors have viewed the exhibition in the district.

13.10.2 Barabanki District:

In October 2014, the bus travelled to Barabanki District. A ceremonial inauguration event was held for it at the Government Girls Inter College where the District Inspector of Schools (DIOS) inaugurated the bus. UPSBB, Lucknow University and CEE North jointly organised an event for school children where around 78 students participated in various competitions including painting, slogan and poem writing on the theme Save Biodiversity- Save Life. The bus stayed in the district for over three weeks and visited more than 20 schools, with more than 8581 people visiting the exhibition.

13.10.3 Kannauj District

Prakriti Bus reached Kannauj District in November 2014, where a launch event was organised at Jawahar Navodaya Vidyalaya, Kannauj with over 350 students, teachers and community members participating in the programme. The bus was formally launched by the District Magistrate, Kannauj along with key district officials. In his inaugural address, he pointed out that Earth is the only planet in this universe where life can exist because of its unique situation in the universe. He further said that biodiversity including genetic diversity is very precious for us. He gave an example that in future biodiversity may help us produce a gene that can help make our body cancer resistant. He appreciated the informative and educative nature of the bus and asked every student to observe and learn from it. The CEE representative explained about the *Prakriti* bus and its objective to the students, guests and principals of other schools, after which the guests and participants were taken around the bus. Over 26 schools were covered during the stay of the bus in the district with 23033 people visiting the bus.

13.10.4 Unnao District:

After covering three districts and reaching out to more than 60000 visitors, the journeyed to Unnao District in January 2015. The inauguration event was held at Nawabganj Bird Sanctuary, Unnao. The CEE representative briefed the participants and guests about the bus and its objective. Over 200 participants including school children, teachers, Gram Panchayat members, Education and Forest Department officials, media and others participated in the programme. Over 24 schools were covered during the stay of the bus and over 8731 people visited the bus.

Resource Material: CEE team developed a set of educational and promotional material as part of the project. The first set of promotional material developed for the formal launch ceremony included caps, cloth bags and mugs for participants and delegates. The second set of educational materials included a brochure of the bus, a campaign pamphlet in Hindi and English, and flyers in Hindi for district targets which were to be distributed to varied target groups. A certificate cum oath poster for schools was also developed.

Apart from this, educational material developed by UPSBB and University of Lucknow was also distributed to schools which included posters, pamphlets, books, etc. CEE is running various national level biodiversity campaigns, whose posters were also distributed to the schools visited by the bus so that they could develop an understanding about biodiversity and participate in the national campaigns. The educational material is receiving an overwhelming response. Teachers find it useful as an aid to classroom transaction.

Media has also found it useful to write about biodiversity.

13.11 Information Management Education and Communication for Maharashtra Gene Bank Project

This innovative project aims at participatory studies and conservation of various genetic resources of Maharashtra which are valued by the user communities. These resources encompass local crop varieties, animal breeds, biodiversity associated with grasslands and freshwater bodies, forests and marine sponges. Funded by Rajiv Gandhi Science and Technology Commission (RGSTC) of Government of Maharashtra, this project brings together 20 local, regional, national level NGOs and scientific research institutions. CEE is implementing the cross cutting component of Information Management Education and Communication for the Maharashtra Gene Bank Project.

In 2014-15, the first year of this five year project, CEE put in place the project team and other resources. Field visits to all the partner organisations sites and representative schools were carried out with the objective of gaining first hand understanding of the geographic, socio-economic and educational realities of different regions spread across this diverse state. Besides beginning of the documentation of project activities by partners, detailed discussions were held with partner organisation teams on a draft Curriculum Framework for school based education activities. This framework has been finalised through a further process of workshop with teachers and external experts in the areas of biodiversity, education and pedagogy.

About 200 schools, mostly secondary, spread over 15 clusters have been identified under the project. Each cluster is being facilitated by as many *Paryavaran Shikshan Mitras* (PSMs) based in partner organization. A first three day orientation workshop for PSMs was organised in October 2014 where they were oriented to the topics of environment education, education for sustainable development and the education system and policies. Sessions were also held on how to conduct environment related activities which are hands on, innovative, creative, easy to understand and relevant to the learners. Field sessions such as nursery techniques, survey techniques, and visits to schools carrying out environment educational activities were also organised. A total of 18 participants from 13 partner organisations attended the workshop.

CEE team members actively participated in various thematic meetings held during the year including three for developing the Database Management System. As an extension and exposure effort, CEE facilitated participation in an exhibition of Crop Genetic Diversity groups work profile and resources being conserved at the 3rd Indian Biodiversity Congress (IBC) which won special appreciation from the organisers.

CEE developed project logo options and a newsletter in Marathi in March 2015. The first issue of this newsletter contains an introductory overview of the project development process, themes and all partner organisations involved in the Maharashtra Gene Bank Project. It also contains stories based on the CEE teams recent field visits. This is planned to be a bi-annual publication with the possibility of additional special issues as per need.

13.12 Development of Biodiversity Management Plan for Vedanta Mines in Goa

Vedanta, a mining firm in India has commissioned CEE Goa State Office to develop a biodiversity management plan for their mines in Goa. An expert committee has been formed to advise the project. A consultative workshop was organised at the beginning of the project to deliberate on the protocols of biodiversity documentation in various habitats in and around 10 km of the buffer zones of protected areas. Dr. BC Choudhuri (formerly with WII); Dr. Dayanand Agasar, Professor, Gulbarga University; and Shri V. M. Dabgar, Retd Professor, College of Forestry, University of Agriculture Sciences, Dharwad; have been appointed as Consultants for the project. The project period is one year and includes biodiversity surveys in different seasons.

13.13 Biodiversity Conservation Education in Schools in Goa

The Goa Institute of Management (GIM) has initiated a unique project 'Give Goa' as part of their CSR activity, which is being implemented

in collaboration with CEE Goa State Office. Ten GIM students implemented a project on biodiversity conservation education in 20 schools in Goa. They developed slide shows and made presentations to school students on the importance of Western Ghats, estuarine and mangrove areas and the ocean. The GIM students also conducted drawing and quiz competition in their campus, during which films on biodiversity and waste management were also screened.

13.14 People's Biodiversity Registers (PBRs)

CEE has been appointed as Resource Agency to support Biodiversity Management Committees (BMCs) for the preparation of People's Biodiversity Registers (PBRs) by Andhra Pradesh State Biodiversity Board (APBB). CEE has been allotted two Gram Panchayats - Chettunnnapadu and Munjuluru of Bhimadole and Buttayagudem Mandals of West Godavari District, Andhra Pradesh. The objective is to facilitate BMCs in documenting the PBRs and submitting the reports to the respective BMCs and APBB to lend legal authority to the PBR.

Disaster Preparedness and Rehabilitation

Economic rehabilitation and empowerment was the focus of the project Rebuilding Hope (RH), being implemented by CEE Himalaya which works in the Indian-Himalayan region with the objective of building the capacity of local people for sustainable livelihoods.

14.1 CEE-Plan India Jammu & Kashmir Flood Response

Distribution of Relief Material to 600 Worst Affected Households in Poonch District: In September 2014, torrential rainfall and subsequent landslides led to heavy floods in the Jammu & Kashmir region. Local rivers broke out into the streets and washed away every proof of human existence, be it homes, bridges or lives. Several thousand villages across the state had been hit, and in many areas, the water was about 12 feet deep, submerging entire houses and forcing stranded residents to leave their homes.

In response to the catastrophe, CEE initiated a relief and rehabilitation programme for the affected people in the badly hit districts of Rajouri and Poonch in Jammu and five districts in Kashmir.



Rehabilitation work as part of J&K flood response

Plan India lent support for the distribution of 600 survival kits in Poonch district of Jammu province, benefiting over 3000 people.

Each survival kits comprised of a shelter kit (tarpaulin sheets, rope, blankets, plastic mats, flash light), water kit (10 litre container, bucket, mugs), cooking kit (cooking pots, frying pan, plates, bowls, glasses, spoons, kitchen knife), hygiene kit (toothbrushes, toothpaste, toilet soap, detergent powder, towels, sanitary cloth, plastic comb), solar lantern, and dry ration (rice, sugar, pulse, tea leaf, milk powder, mustard oil, salt, match box, dry snacks).

Packaging: The material was procured and transported to J&K ITCO Office in Jammu where ample, safe and secure space was available for packaging and storage, which was lent for the purpose by its Chief Executive Officer Mr. Sanjeev Arora. The material was packed in plastic bags of suitable sizes making four different kits - shelter, hygiene, dry ration and kitchen utensils, with the water container being given separately.

Branding and easy Identification of Kits: Identification labels for each kit were printed with different colours being given to different



A physically challenged person with his relief kit

kits. This provided a branding opportunity to the donors and the identification tags made it easy for beneficiaries to identify the different kits. The material was packed and transported in trucks to Poonch, where arrangements were made to transport them to the distribution sites. The trucks displayed banners of CEE-Plan India prominently indicating that they are carrying relief material for the flood affected people of J&K, which also facilitated their smooth movement. During loading and unloading of the relief material, a stock register maintained.

Identification of Beneficiaries: The identification of beneficiaries was undertaken with the help of the district administration who conducted a door to door survey through their *halka patwaris* while the lists were prepared by *tehsildars* and sent to office of the Deputy Commissioner (DC). CEE-Plan India independently verified the list through its own survey and discussed with the Deputy Commissioner about the area CEE-Plan India should focus. The district administration extended its full support and was happy with the CEE-Plan India approach.

The first lot of 100 relief kits was handed over to the Office of the DC Poonch on September 21, 2014 which was distributed to 78 people in Surankote Tehsil, and two relief camps at Eid Gah and Chandak.

CEE-Plan India was also part of the Joint Rapid Need Assessment (JRNA) coordinated by Sphere India for the Poonch district. The JRNA team, led by Abdhesh Gangwar, visited eight villages across Poonch District, which gave the team a clear picture of the extent of damage.

Distribution: Tokens were issued to the identified beneficiaries who reached the place

of distribution on the specified date and time with identity card. It was found that many people had lost their documents in the flood but many also recalled the number of their ration card and other documents.

With police deployment at the site of distribution, only people with tokens issued by CEE-Plan India and office of the Tehsildar were allowed to get in. The identity of the beneficiaries was checked, while the *halka patwaris* confirmed the genuineness of the beneficiaries of their area. Details of the beneficiaries like name, parentage, village, family size, extent of damage, identity card number and contact number, were documented and their signature/ thumb impression taken before after collecting the token and handing over the relief material.

A banner with details of the composition of the relief kits was printed and displayed at the site of distribution for the information of the beneficiaries and to maintain transparency, and the beneficiaries could check whether they had received all the items mentioned.

Beneficiaries were treated with due respect throughout the process of relief distribution. Weaker and physically challenged people were helped in lifting and carrying their material, while women were also given priority. The entire procedure of distribution was conducted in an open manner.

Media Coverage: Local media channels covered the distribution well and the footage was telecast daily on local news channel.

Handing over Record to Offices of the District Collectors and Tehsildar: The original records of the list of beneficiaries as well as the other documents, were handed over to the offices of the Tehsildars and the District Collector of

Poonch, while feedback received about the process is being maintained by CEE, with copies being shared with the offices.

Feedback: The beneficiaries were contacted after a few days of relief distribution to obtain their feedback. All the beneficiaries appreciated the selection of relief items in the kits, and the quality and quantity. The material provided immediate relief to the affected people. The inclusion of sanitary cloth was appreciated. There were also suggestions like a *tawa* and a *chimta* could have been included in the kitchen kit for making chapattis which is a staple food in the area. The government officials, local Panchayat members, and individuals gave positive feedback on the process of distribution, respect given to beneficiaries, transparency maintained, and the priority given to marginalised groups like elderly women and physically challenged people.

14.2 Community Based Psychosocial Care and Support

CEE Himalaya, in collaboration with Sphere India, National Institute of Mental Health and Neuro Sciences (NIMHANS), Christian Blind Mission, National Disaster Management Authority and Indian Red Cross Society organised a three day workshop, during February 8-10, 2014, on Community Based Psychosocial Care and Support at the Shivlinga Resort in Uttarkashi. The objective of this workshop was to create a platform for community level workers to gear themselves up for better preparedness, identification of trauma cases, providing emotional and psychosocial support to the affected and assessing the impact of disaster, for sustained reduction of disaster risk in the district. In this workshop

31 people representing *Aganwadi Kendras*, Asha workers, teachers and other government and non-governmental organisations, and community level workers participated.

The workshop sessions had interactive games and participatory tools and techniques to make them more interesting and participatory, which also enabled the participants to freely interact each other. On the first day, Dr. Sanjeev Kumar of NIMHANS explained the types and impact of disaster to the participants - physical, psychological, economical and social impacts which are interconnected. Psychosocial care is the need of affected people, which should be fulfilled as per the need. Like if people badly need food, then serve only food to them, spoke by Dr. Sanjeev. Dr. Henna Hejazi from Sphere India shared his rich experience with the participants and spoke on the difference between Psycho and Social - psycho is internal and social is external. The second day focused on basic preparedness activities at individual, household and community levels, while on the third day, violence and vulnerability concerns during disaster were discussed. Apart from this, live demonstration of rescue operations in different disaster situations and maintaining and use of first aid kit was presented by the master trainer of Red Cross Society. In the next session, CEE Himalaya team presented the progress in their work and also introduced a psychosocial care programme called UMANG ~ Joy of Learning. Along with outdoor games and competitions, the methodology included generating awareness on the types of natural disasters and the precautions to be taken during and after disaster. Mr. Baranwal, ADM, Uttarkashi and Mr. Pathwal, DPM Disaster cell, Uttarkashi, shared their experiences of the recent disaster of Uttarkhand.

The key person present on this occasion were Dr. Henna Hejazi, Sphere India; Dr. Sanjeev, NIMHANS; Mr. Baranwal, ADM, Uttarkashi; Mr. Pathwal, DPM Disaster Cell Uttarkashi; Dr. Jay Kumar, NDMA; Mr. Jagmohan Arora, IRCS; Mr. Kushpal Singh Panwar, CEE; Mr. Jagroshan Singh Panwar, CEE; and Mr. Ajit Singh Negi, CEE.

Facilitating NGOs and Community Initiatives

15

15.1 Facilitating NGOs/CBOs and Sustainable Integrated Development Programmes

In an effort to facilitate Non-Governmental Organisations (NGOs)/Community Based Organisations (CBOs), CEE has been initiating a variety of interventions at the community level by adopting sustainable integrated development approaches. CEE has also been linking up the programmes with the corporate sector under their Corporate Social Responsibility (CSR) activities, with Public and Private Sector participation. These programmes have been taken up with the support of national and international partners.

15.2 GEF/UNDP OP5 Small Grants Programme

As the GEF-CSO (Civil Society Organization) Implementing Partner for the Global Environment Facility (GEF)/United Nations Development Programme (UNDP) Small Grants Programme (SGP), CEE entered the third year of GEF Operational Phase 5.

The SGP globally assists the developing countries in fulfilling their national commitments emanating from the 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 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 significant differences to 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).

The OP5 GEF/UNDP SGP programme of fiveyear duration became operational on the ground from December 2012. Out of the total approved GEF funds of US \$ 5.0 million, we have utilised a budget of US \$2.108 as of March31, 2015. The target of US \$ 1.0 million set by UNDP for the year 2014 was met with, with a delivery target of US \$ 993,886: i.e. 99.39% of the annual target was achieved.

A total of 12 Regional Committee meetings and five National Steering Committee (NSC) meetings have taken place and 64 community managed projects have been approved and become operational. With the 6th NSC meeting scheduled on May 27, 2015 and more projects getting approved, the Group is hopeful of committing more than 80% of the grant allocation. The SGP programme is a pan-national programme supported and monitored by CEE s seven Regional Offices.

The SGP is being managed by CEE in India since the year 2000, starting from Operational Phase I (OP1) to OP5. A total of 398 projects have been approved, out of which 328 have been completed so far. The details of these 398 projects can be accessed by all the 123 SGP participating countries through the global intranet network and also can be viewed locally at SGP s website: www.sgpindia.org.

About 55 of our NGO partners have been felicitated with national and international awards during the past 15 years. This programme is viewed as a flagship programme of GEF/UNDP amongst the civil society fraternity.

15.3 COMDEKS Programme

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. 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 GEF/SGP programme and seeks the guidance from the GEF/SGP National Steering Committee chaired by the MoEF&CC, Government of India.

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. The progress against these projects is as under:

- The biodiversity of 3500 hectares of hilly landscape in 25 village Panchayats was conserved/ protected. About 5480 hectares of land were brought under increased crop productivity by 10-12%, benefitting 6500 households through establishing water mills, fodder demo plots, local vegetable and medicinal plant gardens, and horticulture plants protection, new crop

introductions, and fruit processing. More than 75 products through six projects were linked to markets.

- **Chhatrasal:** Livestock management through fodder species (two species planted by 250 households) and 19 biogas units were set up. These biogas units save nearly 600 MTs of wood per annum (@ 7-9 kgs per day) and will mitigate 1205 MTs of CO₂ emission in one year, 65000 MTs in 20 years. About 500 women members are engaged in food processing, pickles and foodgrain marketing, which fetched an annual sale of Rs.3,50,000 (US \$ 5645).
- **Friends of Doon Society:** In the lower Himalayan landscape, livestock breed improvement and animal husbandry practices were adopted benefiting more than 50 households, and nine biogas units set up leading to a savings of 9-10 kgs of wood per day and 62 MTs of CO₂ emission reduction in one year. Firewood worth US \$ 3,400 was saved, leading to less investment by people in wood purchase, thus creating surplus income for the families. Three solar charging stations were set up and 62 solar lanterns distributed, which will save 173.6 tons of CO₂ emission in the next 10 years. This will also replace 7440 litres of kerosene per year, saving US \$ 488 per year per family.
- **Lok Paryavaran Shiksha Sansthan:** Sixteen water mills were set up benefitting 21 households which will save 80 trees and also provide alternate energy to check 1600 MTs of CO₂ emissions over 10 years, through the use of metallised turbines instead of the usual wooden turbines. Sixteen families are earning about US \$ 180 per month by milling the grains through water mills. About 500 families

are getting the facility of ground grains within their easy reach in four villages, saving substantial time in commuting through the hilly areas. Nine biogas units installed in six villages provide cooking gas to the families, saving nearly 2300 MTs of CO₂ emission over the next 10 years.

- *Aagaas*: Two seed banks were established for local millets and lentils which benefit 100 farmers. About 500 farmers are engaged in local trade of bamboo products. Sales of Rs.5,50,000 (US \$ 8,870) were achieved by more than 500 farmers. (Aagaas).
- *Mahila Haat*: About 400 women farmers are engaged in making chilly powder, coriander, turmeric, while 56 farmers are employed as cooks and nature guides. Five different nature trails developed here have received more than 5206 visitors in 2014-15.
- Friends of Doon Society: Having trained at the Barefoot College through a study tour, eight women of Rasulpur Tongia village have started taking up mason work (a male dominated work area) and made 38 Feeding Troughs to encourage stall feeding of animals, which also help in a better process for the collection of cow dung waste for the biogas plants. Their income has been enhanced through sale of these troughs.
- *Chirag*: The project aimed to reduce risk in agricultural income by encouraging women farmers to take up horticulture for improved incomes. Three training cum food processing and production centres were set up for producing juices, pickles and squashes and for providing regular skill development trainings. The NGO has spread its operations to 13 villages and procured 23 MTs of fruit from 132 farmers which included apricot, peach, plum, potato and apple.
- *Chhatrasal Seva Sansthan*: More than 75 village meetings have led to about 600 farm families to go in for value addition of food products, especially pickles with four types of pickles (garlic, chilly, mango and red chilly) being prepared by them. Turmeric powder, ginger powder and coriander powder are also being made.
- In all, about 43 natural resource based products linked to markets (e.g. turmeric, coriander powder, red chillies, garlic, lentils, rice and pickles, etc.) and income generation opportunities supported for setting up fruit/milk processing centres, water mills, biogas units, lentils and cereals along with nature guides and cooks, benefit 2900 community members with an increased income about by Rs.16,000 per annum.
- *Aagaas*: Two SHGs involving 22 members specially formed for promotion and production of local Ringaal bamboo crafts have developed eight new product designs and sold craft items worth US \$ 930. Enterprises based on Himalayan Nettle were developed in three villages benefit 23 people who have been trained and have adopted the weaving process. A saving of US \$ 4,620 has been achieved by the SHGs.
- Friends of Doon Society: Forty women were trained to make different craft items with the help of different raw materials, like *sulli* (coir thread), synthetic rope, iron rings, beads, wool, etc. ~ a low-investment business proposition. These women also

use internet to adopt new designs of hand-knitted items which is enhancing their capacity.

- *Chirag*: More than 810 women and 120 men have been directly benefitted from the food processing and production centres set up for producing juices, pickles and squashes and regular skill development trainings.
- The NGO partners are regularly linking up their programmes with state government departments like animal husbandry, agriculture, horticulture, tourism, agricultural banks, Medicinal Plant Board, State Biodiversity Boards, State Renewable Energy Departments and Forest Departments and accessing resources from them like scientists/officials for training the community. They are also linking up with government schemes, like poly houses, kitchen gardens, state subsidies for renewable energy, and others.
- The multi-pronged approach adopted in most of the COMDEKS projects and the involvement of government officials is building a better credibility for the NGO partners as well as confidence and trust in their sustainable actions with the community. As a result, the government departments are also providing support to the NGO-based projects through COMDEKS partners.
- NGO partners and communities are being encouraged through field visits, interface with technology, exposure visits, trainings and workshops to focus on maximising yields, range of products from ecosystems, including food, fibre, fuel, genetic plant varietal resources, natural medicines and

fresh water. Use of alternate fuels, solar and energy efficiency measures, avoiding burning of biomass, etc. are some of the small innovations introduced through these projects.

- In all the projects, NGOs and women SHGs are being encouraged to create value addition to both horticulture and agriculture crops, and cultivation and conservation of endangered species that may be tradable, e.g. medicinal plants and species that attract tourists.
- The Eco-Tourism Board of Uttarakhand state has linked up with the *Mahila Haat* project by providing state guidelines as well as master trainers for providing training in a range of areas related to eco-tourism.
- The Forest Department of Uttarakhand has linked up with the *Aagaas* project for enhancing the production of Himalayan Nettle and also buying back the products for sale through their State Forest Department Board. They have encouraged the NGOs to market the products to hotels in Dehradun, Pune and Mumbai where they can be used as tapestry and other materials. This is a win-win situation for all stakeholders.

15.4 Medicinal Plant Gardens Programme

This programme aims to develop medicinal plant gardens in 300 schools and colleges of New Delhi and the National Capital Territory (NCT), and sensitising teachers and staff members on the use of medicinal plants and their cultivation. It is a joint initiative of the National Medicinal Plant Board, Ministry of Health & Family Welfare, Government of India

and CEE. Through this, the project also aims to address the conservation of medicinal plants and ensure their use in our day-to-day life for better health and immunity.

The programme, being implemented on the ground by CEE Delhi, promotes inter-generational knowledge in schools for effective processing and procuring benefits from medicinal plants. At present, a wide range of medicinal plants are threatened with 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 go a long way to promote their values in the society. Based on their importance and need to conserve, CEE listed 26 species of herbs and shrubs which will be planted in the Medicinal Plants Gardens.

Till now 141 schools have partnered with CEE and 101 gardens have been established. Out of these, 10 schools have been identified for developing mother nurseries in order to supply saplings to the schools in their respective region. Fifteen orientation workshops have been organised with 1000 teachers being oriented to promote the project in their schools and inculcate the 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 NCT, to link the activities with the Eco-clubs of schools. Two NGOs - Eco Roots Foundation and I-Dream - are also partners in this so as to extend the coverage through networking and capacity building.

A good amount of advocacy material has been developed, like brochures (in English and Hindi), posters, leaflets on Usefulness of Medicinal Plants, and stickers to disseminate the project philosophy, objectives, strategy and activities.

15.5 Partnerships of GEFUNDP/SGP & CEE

15.5.1 Partnership with Airbus Corporate Foundation

Through the private sector partnership established with Airbus Corporate Foundation (ACF) in 2010, ACF provides a wide arena for their employee-volunteers to gather life-changing experience by getting attached to communities, learn about their problems, provide solutions by undertaking community work themselves, and participate in cultural exchange. This gives the volunteers an opportunity to participate in climate change mitigation actions like conservation of biodiversity in resource rich tribal belts through use of alternate energy options like biogas units; and providing cheap, easy and clean fuel for cooking thus reducing the drudgery of women in the households.

The project covers 30 tribal villages of Gudalur Block, Nilgiris District, Tamil Nadu (inhabited by Paniya, Kurumba and Kattunayaka tribes) where 45 biogas units and 45 cowsheds have been set up. Each of these 45 beneficiary households saves about 8-9 kg of firewood per day, which also prevents deforestation. The 45 biogas units have contributed to the prevention of nearly 1800 MT of CO₂ emission annually; i.e. 108,000 kg of wood has been saved which is equivalent to 1.8 kg of CO₂ per kg of wood burnt (45x8 kg wood x 300 days per year). About 450 fuel efficient cook-stoves

have been provided to households to reduce pressure on forests and drudgery of tribal women. Each household also sells an average of 7-8 litres of milk per day and earns an additional income of Rs.120 daily.

The GEF/UNDP/CEE SGP takes care of knowledge management and provides technical support. The Centre for Tribal and Rural Development Trust (CTRD) acts as the local NGO.

So far, ten volunteering visits comprising of 15-18 employees in each trip have been undertaken. The project has cash financing of Rs. 40 lakh (50,000 Euros) from ACF, Rs.23 lakh from GEF/SGP and in-kind co-financing of US \$ 25,000 from volunteering employees. The State Government subsidy on biogas units has also been accessed for the units installed. Looking at the benefits that have accrued to the tribal communities and also the environmental benefits accrued, ACF has extended this programme till 2016.

15.5.2 Partnership with SAIL

The joint partnership with Steel Authority of India Limited (SAIL) has entered the third year, taking up Sustainable Livelihoods, Incomes of the poor and marginalised in Gonda District (Uttar Pradesh), through landscape and institutionalised micro credit approaches. This project comprises of cash funding of Rs.80 lakh from SAIL and Rs.37.65 lakh as co-financing. An amount of Rs.40.00 lakh has so far been accessed from SAIL.

The project aims to enhance the quality of life and provide increased incomes for the poor and marginalised in 15 villages through a community-led integrated natural resource management approach, using enterprise-based, renewable agricultural practices and a landscape approach. The project also focuses on developing the skills and capacities of farmers by introducing low cost and modern agricultural and allied technologies that are easy to use and implement, based on local conditions and resources available. This approach enables them to increase their knowledge and income through a range of activities in natural resources management. Simple technologies like improved cook-stoves, setting up solar power stations and biogas units, are introduced which result in energy efficiency for better household management and reduced drudgery for women. The local people are being encouraged and trained in improved agri-practices to establish sustainable business enterprises for increased incomes based on traditional crops. The linkages have been established with the Krishi Vikas Kendra to provide seeds of traditional varieties for demonstration purposes in five acres of land.

15.6 Awards Won by GEF/UNDP CEE SGP Partners

Nine GEF/UNDP CEE SGP-supported project partners won the following awards during the year:

January 2015

IND/COMDEKS/2012/05 - Conserving biodiversity for positive human-nature relationship through nature and tourism in Kausani Valley of Almora district

Ms. Krishna Bisht, General Secretary, *Mahila Haat* won the 22nd Indian Merchants Chamber Ladies Wing Jankidevi Bajaj Award for the year 2014 for her outstanding contribution towards

Rural Business Entrepreneurship and empowerment. This award is given every year to recognise women entrepreneurs for their work in rural India. The award was given on January 7, 2015 in Mumbai by the Chief Guest, Ms. Priya Datt, a known political personality and Trustee of Nargis Datt Memorial Charitable Trust, in the presence of IMC President Mrs. Arti Sanghi and Justice Dr. C.S. Dharmadhikari.

September 2014

IND/SGP/OP5/Y3/CC/STAR/ 2014/46/DEL02 - Chintan Environmental Research and Action Group

Ms. Bharati Chaturvedi, Founder and Director of Chintan, was facilitated with All Grassroots Women of the Decade Achievers Award by Assocham Ladies League (ALL) and Rai University for her consistent and dedicated contribution in the field of environment and waste management. She received the award from Shri M. Venkaiah Naidu, Hon ble Union Minister of Parliamentary Affairs, Urban Development, Housing and Urban Poverty Alleviation, who was the chief guest and Dr. Harbeen Arora, Global Chairperson, ALL.

June 2014

IND/SGP/OP5/Y3/STAR/ 2013/29/CHT01 - The Covenant Centre for Development, Chhatisgarh (CCD)

The Covenant Centre for Development, Chhatisgarh (CCD), Traditional Healer Association (CTHA) won the UN Equator Prize, 2014 for its work (link provided below)

www.undp.org.in, <http://www.in.undp.org/content/india/en/home/presscenter/pressreleases/2014/06/16/chhattisgarh-traditional-healers-amongst-winners-of-the-2014-equator-prize>.

The Secretary of CTHA, Mr. Vaidya Nirmal Kumar Awasthi was invited to New York for receiving the Award at a side-event to the 69th Session of the UN General Assembly during September 17-22, 2014. Dr. U. V. Ghate, Director-CCD was also invited and sponsored as his nominator and translator.

June 2014

IND/COMDEKS/2012/05 – Mahila Haat

A project partner of GEF/COMDEKS SGP, *Mahila Haat* was awarded the *Krishak Mitra* Award by the G.B. Pant Himalayan Environment & Development Institute, Kosi (Uttarakhand State) on Environment Day. The *Krishak Mitra* Award was given to Godhan Singh Negi, an inhabitant of Vikaskhand Bhaisiachhana for his contribution to vegetable cultivation, honey bee cultivation and other agricultural activities.

May 2014

IND/SGP/OP5/Y3/STAR/2013/9/KAR04 - Krishnamurthy Foundation India

Another GEF/UNDP SGP project partner, Krishnamurthy Foundation India won an Award of Excellence from the Andhra Pradesh State Biodiversity Board, Government of Andhra Pradesh for rendering exemplary service for Conservation and Sustainable Use of Biological Resources. The Award was bestowed on them on the occasion of International Day for Biological Diversity, on May 22, 2014.

2014

IND/SGP/OP4/Y1/RAF/2008/17/ASM10 – Dhriti won the following Awards/Recognitions:

- 1) 2013 SEED Low Carbon Award sponsored by UNDP and UNEP at a high level award ceremony at UNEP Headquarters in Nairobi, Kenya from the Under Secretary General of UN, Achim Steiner (<http://www.seedinit.org>). This award recognises and supports innovative social and environmental start-up enterprises, which tackle key sustainable development challenges at community level, in developing and emerging economies. Tambul Plates Marketing Private Limited, a marketing company of the NGO, will receive a package of individually tailored support for the businesses, access to other supporting institutions and technical assistance, and a financial contribution of US \$ 5,000. (<http://www.seedinit.org/awards/all/tambul-leaf-plates.html>).
- 2) Finalist for Changing Markets Award - The NGO's marketing company that links the Tambul Plates with the markets was one of the 10 finalists for Changing Markets Award in the 16th International Business Forum, Istanbul, Turkey. (<http://ibf2013.net/>). With the theme of Green and Inclusive Business Solutions for Development, Tambul Plates was selected as one of the 10 inspiring business models in the world, which combine business acumen with environmental and social objectives, contributing to the transformation towards a greener and more inclusive world. Though they were not selected among the final three winners, it was a great learning experience and enabled them to develop a lot of contacts in the process.
- 3) Artha Venture Challenge Competition ~ The NGO's company won the competition for social enterprises working in India and is eligible for US \$ 50,000 equity infusion from the Artha Platform.
- 4) The NGO's company also received a seed investment from Upaya Social Ventures through Upaya's LiftUP Project, an accelerator programme that provides early stage entrepreneurs with business development support and financial resources to launch and scale their businesses.

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- 5) The Balkipara Foundation Naturenomics Award 2013 ~ They were also honoured with this Award in recognition of the work of Tambul Plates, a Green Enterprise, for promoting a financially successful and ecologically sustainable business model.
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22 May 2014

IND/SGP/OP5/Y3/STAR/2013/30/MP03 – Sujagriti Samaj Sewi Sanstha, Morena - received the State level award for the Best Garden

On nomination from the district level, the Piprai Baba Devpuri/Baba Ramdas Garden maintained by Sujagriti Sanstha, Morena was awarded the State Level Award for the Best Garden. 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. The event was graced by the presence of Mr. M.M. Upadhyay, Chief Guest; Senior Chief Secretary, Agricultural Production Commissioner, President-Mr. Ajit Kesari, Chief Secretary, Madhya Pradesh Administration, Biodiversity Conservation Department.

The participants included the nominees of the Best Park Award from various districts of the state, senior officials, sector experts and officials from the Biodiversity Administration. A Shield, Certificate and award money was presented to the President of the organisation. This Garden has several varieties of trees and has done exemplary work in conserving several varieties of plants including Guggul, Neem, Sheesham, Siari, Kareel and Babul. The award was given to the organisation for forest conservation, tree plantation and praiseworthy work undertaken in the garden.

April 2014

IND/SGP/OP5/Y3/STAR/2013/24/MP01 - Sarjna Samajik Sanskratik & Sahitiyak Manch - Awarded on April 29, 2014 for the Best Work for running the Paryavaran Mitra Programme being implemented by the Ministry of Environment & Forests and CEE

The GEF/UNDP SGP Project partner has been running the Paryavaran Mitra Programme in Satna District (Madhya Pradesh) with the support of Ministry of Environment & Forests and CEE Delhi and Bhopal. At the state level, 15 teachers, 15 schools and nine organisations were given the Paryavaran Mitra Award 2013. Out of these, Sarjna Samajik Sanskratik & Sahitiyak Manch, Satna was selected for the Best Work and was awarded a momento and certificate at a function organised at the Conference Hall of the Regional Museum of Natural History, Bhopal on April 29, 2014.

April 2014

IND/SGP/OP5/Y3/STAR/2013/30/MP03 - Sujagriti Samaj Sewi Sanstha, Morena – Awarded for the Best Work for running the Paryavaran Mitra Programme of the Ministry of Environment & Forests and CEE

The GEF/UNDP SGP Project Partner has been running the Paryavaran Mitra Programme from 2011 to 2013 in 125 schools of Morena District with the support of Ministry of Environment & Forests and CEE Delhi and Bhopal. Sujagriti Samaj Sewi Sanstha, Morena was selected for the Best Work and received the award on April 29, 2014 at a function organised at the Regional Museum of Natural History. With the help of CEE Delhi & Bhopal and other organisations, Sujagriti supported the local villagers, children and teachers to become Paryavaran Mitra (Friends of Environment) by acquainting them with the different species of plants, their conservation, harmful pesticides, waste management, water and energy conservation, cultural and heritage related issues.

15.7 National Environmental Awareness Campaign (NEAC)

For NEAC 2014-15, CEE was associated with the campaign in its capacity as 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 them. 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 during October 28-31, 2014 in three regions: Western, Northern and Central, in three cities, viz, Ahmedabad, Chandigarh and Delhi. The North-Western regional



Meeting of NEAC in progress.

meeting was held in Guwahati during November 4-7, 2014. CEE representatives were also members on these regional committees.

15.8 Environmental Monitoring and Evaluation in Coastal Regulation Zone

In 2013-14, CEE established its field office at Mundra in Kutch district, Gujarat. Mundra Port is a rapidly developing one, with the coastal areas here posing unique ecological and developmental challenges. While on one hand they are home to rich marine biodiversity, with the coastal resources being the backbone of the livelihoods of coastal communities, on the other hand, industrialisation in the coastal areas and development of ports and Special Economic Zones is claimed to be playing a crucial role in economic development of the country.

Realising that these are the new developmental challenges that are sculpting the socio-environmental and economic profile of coastal Gujarat, CEE initiated its project in Mundra with the support of APSEZ. The project is functional in 21 villages of Mundra Block. The overall aim of the project is to involve different stakeholders in monitoring of local sustainability concerns, and work towards addressing them in a participatory manner.

Thus the project aims at bringing different stakeholders: industry, community, youth, schools, etc. on a single platform where sustainability dialogue can take place.

Another key approach the project is aiming to evolve is to involve college going youth in the sustainability monitoring activities. Thus, during the year, third year B. Tech (ICT) students of DAIICT (Dhirubhai Ambani Institute of Information and Communication Technologies), Gandhinagar, were facilitated to conduct a basic socio-economic survey to create village profiles and help them understand the complexity of rural developmental challenges. A group of nine students spent about two weeks and prepared a project report to analyse their learning, titled

Understanding Concerns of Development: From Perspective of Youthf.

Moreover, to understand key concerns and the resource dependency of people from diverse occupational backgrounds, four multi-stakeholder consultations were conducted wherein a cross section of community members, representatives of PRIs, and other academic institute and NGO representatives participated. This four day event provided much needed insights into the concerns and perceptions of the community about development in general and industrialisation in particular, and their dependency on coastal resources. Based on this a long term project for addressing the sustainability concerns in a more participatory way is being planned.

16

Training, Capacity Building and Networking

16.1 Capacity Building: Science Education in Afghanistan

CEE conducted a training programme in Science Education which was attended by 50 science educators and trainers from different provinces of Afghanistan. The 20 day two-phased training programme was financed by the Swedish Committee for Afghanistan. The participants were trainers of science education faculty members from schools, staff members of the Swedish Committee for Afghanistan as well as Science Centres national and provincial ones of the Ministry of Education.

As the participants attending the programme were engaged largely in training teachers and in providing expertise and consultancy in improving quality of education in schools, the programme was designed for teacher trainers rather than teachers.

The first 10 days of the programme, conducted during August 24 to September 2, 2014, focused on teaching-learning methodologies that would enable children in primary grades learn science effectively. The second and final phase was conducted during November 24 to December 3, 2014. This phase of the programme focused on laboratory-based experiments in science, thus the focus was mainly on the secondary grades.

16.2 CEE Ka Bioscope

CEE *ka* Bioscope (CKB) Programme is an ICT enabled programme designed to provide interactive and fun-filled learning for school children. The activities of the programme help students in integrating their learning in Environmental Studies, Science, as well as Social Sciences. In its sixth year, the CKB Programme has reached out to 460 students from Grades 5 to 11 of three schools. This year,

CKB was also introduced in a district (Rajkot) other than Ahmedabad for the first time.

Four different modules i.e. Population and Development, Biodiversity Conservation, Sustainable Agriculture and Waste Management were dealt with in the programme.

Various teaching-learning methods and tools were used. These included power point presentations, lab-based sessions using internet connected machines, global positioning system, google earth (software); MS Office, group discussions, nature camp and field visits among others. Students also had an opportunity to interact with experts and government officials of the Agricultural Produce Market Committee (APMC), the Waste Water Treatment Plant, and Census Department, Gandhinagar. A two day camp to CEE's camp site in Bakore, visits to Indroda Nature Park, Gandhinagar, and Sundarvan - Nature Discovery Centre were also organised as part of the programme.

16.3 Capacity Building Teachers to Facilitate Change Processes in Eco Schools of the UAE

CEE India, in association with Emirates Wildlife Society (EWS) and 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. 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 mode, two contact sessions were held in UAE

last year, where the teachers were oriented on using different teaching-learning methodologies to transact EE effectively; develop a basic understanding of project management; and discuss their Eco School micro-projects.

This pilot phase came to an end with teachers appearing for their Diploma Certificate in Environmental Education in October 2014. Each of the five teachers secured a Gold Leaf. The learnings of this experiment of capacity building participants in UAE, who are already executing a project, would help further ESD initiatives in the Middle East.

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.

A complete set of two modules Understanding Sustainability Education and Working with Children - was developed under this initiative.

16.4 Showcasing Sida sponsored International Training Programme (ITP) in ESD in Formal Education at ITP Higher Education Results Seminar

ITP in ESD in Formal Education was a programme specially designed for persons qualified to participate in reform processes of strategic importance at different levels. Financed by Sida, the programme was globally coordinated by Niras Natura for about a decade - 2002-2011. CEE India has been the Asia Coordination Partner in this initiative.

Ms. Carol D souza, Programme Officer, Networking and Capacity Building (NCB), CEE, represented the Centre at the ITP in

Higher Education Results Seminar funded by Sida. This seminar was seen as an opportunity to review and present achievements of the Sida sponsored ITP in ESD in Formal Education as well. Through the decade, the programme was implemented in around 13 countries across Asia and was able to train over 250 professionals, generating over 140 innovative change projects that helped strengthen sustainability education in the formal education sector.

16.5 Training-cum-Exposure Tour in Education for Sustainable Development for College Students

A one-week training-cum-exposure tour in Education for Sustainable Development for a group of 30 first year students of Bachelors in Social Work from the College of Social Work, Mumbai was organised in November 2014 at the Centre. This five day programme focused on helping students understand the need and role of education in ESD and Communication and Development, taking CEE as a case study.

16.6 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 e-learning for intermediate level in-service teachers of Abu Dhabi. The project is proposed and supported by Environment Agency Abu Dhabi (EAD). The module development is underway.

16.7 EAD training on Youth Book

CMU oriented a group of university students in February 2015 to help them conceptualise

and implement a Sustainability Action Project (SAP) in the community as part of the Sustainable Campus Initiative of Environment Agency Abu Dhabi. The workshop focused on tools and techniques of project management, along with a deeper understanding of sustainability issues of Abu Dhabi.

16.8 Workshop on Climate Change

CEE's Sustainable Business and Climate Change (SBCC) group works towards climate change awareness, education, training and skill building across various target groups ranging from youth to industries and grass root workers. As part of this, SBCC has been conducting workshops for youth, NGOs and industries on various aspects related to climate change.

16.8.1 For Youth

Indian Youth Climate Network (IYCN), along with CEE, organised a two day Climate Catalyst workshop for youth across Ahmedabad in the month of September 2014 at CEE campus. This workshop was part of the IYCN Agents of Change programme which takes the climate movement of the Indian Youth from the grassroots to the international arena. The Agents of Change programme includes training of both young students and

professionals who are involved in massive lobbying, campaigning and direct action, at regional and national levels, to influence the political decisions and negotiations leading up to COP 20. The workshop covered various aspect of climate change right from the science to solution. During the workshop, youth were involved in various group activities like current climate and environmental issues of Ahmedabad, how social media can help to communicate climate change and understanding the stand of Indian youth in current climate negotiations.

16.8.2 Gender

A one day workshop with Mahila Housing Sewa Trust (MHT) was organised on November 14, 2014 at SEWA Office. Since *karyakartas* and *vikasinis* (different categories of workers) are directly or indirectly involved in sectors affecting / effected by climate change, SBCC designed the workshop in line with their work focus and through discussion with representatives from MHT. The workshop provided the participants an understanding of the science of climate change, its causes and impacts. It also consisted of practical hands-on activities to enable them to link between their work and climate change. The objectives of the workshop were as follows.

As the Decade of Education for Sustainable Development (DESD) came to an end in 2014, the period 2014-15 was the time when globally activities were focusing on planning and initiating work on the post DESD programmes. CEE engaged with a number of ESD institutions worldwide and with UNESCO to find synergies and areas for cooperation. CEE also developed proposals and ideas for furthering work on Education for Sustainable Development through the proposed Global Action Programme that would follow the end of the decade. Mr. Kartikeya V. Sarabhai, Director CEE, was a part of the International Steering Group for the end of the decade Global Conference on ESD in Nagoya, Japan, held in November 2014.

Mr. Sarabhai participated in meetings and conferences during this year to promote ESD and engage with ESD practitioners and academicians. He also offered lectures to students in universities on ESD. Some of his key interactions are listed below.

17.1 Planning Resilient Cities – Amsterdam, Netherlands - May 2014

Mr. Kartikeya Sarabhai interacted with students of the course Planning Resilient Cities, at the Netherlands in May 2014. The course is offered under the UNESCO Chair on Education for Sustainable Development and the Human Habitat, established by CEE and CEPT University, India, in cooperation with UNESCO and in partnership with SWEDESD and ICLEI. Mr. Sarabhai spoke about climate change issues and discussed the resilience strategies of cities in India.

17.2 CoDeS Conference: Handprint Schools and ESD Challenges in the Emerging Economics: Designing a Sustainable Future through School Community Collaboration - Barcelona, Spain – May 2014

Mr. Kartikeya Sarabhai was invited as the keynote speaker at the CoDeS Barcelona Conference in Spain, in May 2014. He spoke on the Challenges of involving schools in communities striving for SD from an Asian situated perspective. The Conference was an attempt to build on the activities and themes of the three year Comenius Lifelong Learning Network (CoDeS), and facilitate the exchange of experiences on how to promote successful collaboration between schools and communities when working for Sustainable Development.

17.3 CBD Meeting - Montreal, Canada – June 2014

At the Convention on Biological Diversity (CBD) meeting in Montreal, in June 2014, Mr. Kartikeya Sarabhai discussed the educational strategy initiated at COP 11. The deliberations further focused on varied aspects including the COP 12 in South Korea, programmes like the Green Wave and Green Handprint, the Biodiversity Barometer in Global Biodiversity Outlook, and the multi stakeholder biodiversity conservation case study. Dr. Shailaja Ravindranath, Regional Director, CEE, attended the fifth meeting of the Ad Hoc Open-ended Working Group on Review of Implementation of the Convention on Biological Diversity (WGRI 5), held in Montreal, in June 2014.

17.4 Foundation for Environmental Education General Assembly 2014 – Denmark, Europe – June 2014

In June 2014, Mr. Kartikeya Sarabhai attended the General Assembly organised by the Foundation for Environmental Education (FEE), in Copenhagen, Europe. The meeting revolved around discussions on the implementation of the environmental education principles into the FEE programmes and national initiatives and potential of the new FEE. The meeting also highlighted the annual activities of FEE during 2012-13 and FEE's strategic plan for 2014-16.

17.5 4th Meeting of the International Steering Group (ISG) for the 2014 World Conference on ESD – Paris, France – June 2014

Mr. Kartikeya Sarabhai attended the 4th Meeting of the International Steering Group (ISG) for the 2014 World Conference on ESD in Paris, in June 2014. Organised by the UNESCO, the meeting attempted to seek expert advice on the various ongoing elements of the preparations for the World Conference on Education for Sustainable Development. Twelve experts on ESD, representing different world regions and diverse sectors, were members of the ISG. Mr. Sarabhai also attended the Preparatory Meeting for Workshop Coordinators of the UNESCO World Conference on ESD, held back-to-back with the ISG meeting.

17.6 First in-person Global Citizenship Education Working Group meeting of the Learning Metrics Task Force 2.0 – Bogota, Columbia - July 2014

Mr. Kartikeya Sarabhai was the working group member for the First in-person meeting of the Learning Metrics Task Force 2.0 ~ Global Citizenship Education Working Group, conducted in July 2014, at Bogota in Columbia. Organised by the UNESCO Institute for Statistics (UIS), the Youth Advocacy Group (YAG) and the Centre for Universal Education (CUE), the meeting attempted to build consensus on the key components of Global Citizenship Education (GCE) that can be taught and measured in formal and non-formal education settings; discuss traditional and new methods of assessing GCE at the classroom, and also at the national and international levels and assess their feasibility in different contexts; review and discuss the UNESCO proposed global indicators to measure progress in learning GCE competencies; and decide on a strategy to expand consultation to multiple stakeholders as well as to increase awareness of GCE worldwide.

17.7 UNESCO World Conference on ESD 2014 – November 2014 – Aichi-Nagoya, Japan

CEE was the Nodal Agency for the UN Decade of ESD in India, and was part of the delegation representing India at the UNESCO World Conference on Education for Sustainable Development. Mr. Kartikeya Sarabhai was a member of the International Steering Group

(ISG) of twelve ESD experts, which provided advice to the UNESCO and the Government of Japan on the Conference preparations. He attended the World Conference, which was co-organised by UNESCO and the Government of Japan, at Aichi-Nagoya in Japan, in November, 2014. The CEE team, along with UNDESA, conducted a workshop on ESD and Achieving Sustainable Development Goals, wherein Mr. Sarabhai introduced the concept of the Ecological footprint and spoke about the need for developing nations to leapfrog ahead through carefully choosing sustainable development approaches. He highlighted the Pick Right campaign which India adopted from the World Environment Day theme of 2008, and also spoke about CEE's Handprint concept which represents positive action for sustainability. The Handprint was also among the 25 ESD Project Exhibitions at the World Conference. CEE showcased India's efforts in ESD as part of the country exhibitions on behalf of the Indian National Commission for Cooperation with UNESCO, and the Ministry of Human Resource Development, Government of India. CEE team was also a part of organising workshops on ESD and Biodiversity and one that looked at Future Directions for ESD.

17.8 Second UNESCO Forum on Global Citizenship Education (GCED) – Paris - January 2015

Mr. Kartikeya Sarabhai participated at the Second UNESCO Forum on Global Citizenship Education - Building peaceful and sustainable societies: Preparing for post-2015*f*, held in Paris, in January 2015. Organised by the Division of Education for Teaching, Learning and Content, Education Sector, UNESCO, with the support of Member

States, the meet marked the 70th anniversary of UNESCO, and was organised in support of the UN Secretary-General's Global Education First Initiative (GEFI). The discussion focused on measuring the learning outcomes of Global Citizenship Education and Education for Sustainable Development, along with operationalising GCED through mainstreaming and delivery. The Meet also discussed the outcomes of the World Conference on Education for Sustainable Development, held in Nagoya.

17.9 Meetings with the Brookings Institution, Worldwatch Institute, and World Learning-SIT Graduate Institute – Washington DC – March 2015

Various meetings were held in Washington DC in March 2015, towards planning and finalising the execution of the International Program Reimagining Main Roads as Catalysts for Sustainable Development. As the holder of the UNESCO Chair at CEPT University ~ Programme Leader and Faculty for Ahmedabad, India Module, Mr. Kartikeya Sarabhai attended these meetings. Offered through the UNESCO Chair Programme for Education for Sustainable Development and the Human Habitat established at CEE and the CEPT University, the Summer School Programme focused on equipping future planners with the capacity for visualising and designing smart sustainable cities and inclusive communities. The course, offered in partnership with Worldwatch Institute and World Learning-SIT Graduate Institute, is a three week, five credits course, focused on revitalising streets for multiple uses including integration of historical sites.

**17.10 Seminar: SPURS/ Humphrey
Fellows and the
Comprehensive Initiative on
Technology Evaluation lab
(CITE) – Boston – March 2015**

Mr. Kartikeya Sarabhai was invited to give a talk to the students of the Special Program for Urban and Regional Studies at the Massachusetts Institute of Technology (MIT). Organised in March 2015 by the Department of Urban Studies and Planning, MIT, the seminar addressed mid-career professionals (SPURS) and students of Comprehensive Initiative on Technology Evaluation lab (CITE). Mr. Sarabhai spoke on India's growth, environmental sustainability, smart cities and opportunities for collaboration with MIT.

Material Development and Publications

18

Children's Media Unit (CMU) is involved in developing learner support material in various formats and media, to support EE and ESD programmes nationally and internationally. CMU conducts training and capacity building of teachers and ESD professionals. CEE is the Video Resource Centre for Television Trust for the Environment (TVE) and CMU facilitates the VRC function of CEE whereby it ensures a wider reach of the video programmes.

18.1 Exhibition ESD: Innovating, Partnering, Demonstrating, Mainstreaming and Impacting

Rajeswari N. Gorana coordinated the design of an exhibition to showcase CEE at the UNESCO World Conference on ESD held during November 10-12, 2014 at Aichi-Nagoya. The exhibition, titled ESD: Innovating, Partnering, Demonstrating, Mainstreaming and Impacting, gave a glimpse of the milestones in CEE's work in EE and ESD since its inception 30 years ago.

18.2 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 practiced 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). Efforts by individuals, NGOs, UN

organizations; educational policies, government initiatives, programmes and projects that are facilitating ESD work would be captured. The Book is now in the manuscript phase.

18.3 Publications for EAD

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 (SCI). This collaboration includes development of resource material and conducting trainings.

During this period, CMU worked on two publications – one for youth and the other for teachers of Secondary level.

18.3.1 Shabab Al Estidama: A Resource for Youth on Sustainability

This Resource is meant to support youth in Higher Education Institutions as part of the Sustainable Campus Initiative (SCI) of EAD in choosing and implementing Sustainability Action Projects (SAP) in the community.

The development process involved taking feedback from youth on the draft through a workshop and such inputs were incorporated in the book.

18.3.2 Towards a Sustainable World: A Resource Book for Secondary Teachers

This book meant for secondary teachers, (classes 9-12), is in the layout stage.

18.4 Climate Caravan Campaign Material

The Madhya Pradesh Clean Development Mechanism Agency (MP CDMA) proposed a

campaign on Climate Change to reach out to school children, college students, homemakers and working professionals, to impart education and create awareness among the general public. The need for public awareness efforts in the context of climate change mitigation is an important element of India's National Action Plan for Climate Change and the Madhya Pradesh State Action Plan for Climate Change.

CMU has developed Climate Caravan ~ *Hum Saath Chalein* as the campaign identity for the products and awareness activities. CMU developed and designed a flyer, a planner, a brochure and standees, and facilitated the design of posters (Climate Change, Handprint, Water, Energy, Waste, Transportation). The communication material will support the campaign events which will be taken up in the next year.

18.5 Save Wular Lake Poster

Wular Lake of Jammu & Kashmir, a Ramsar site, Asia's largest fresh water lake and the pride and treasure of Kashmir, has been facing several serious threats like: siltation and eutrophication, deforestation in its catchment area, industrial and agricultural chemicals,



untreated sewage flowing into the lake, domestic waste, washing and bathing near the lake, invasion of exotic species and extinction of native species. The lake greatly contributes to the economy of the state through tourism and fishing, which provides livelihood to over 8000 fishermen. CEE Himalaya, with INTACH J&K Chapter and J&K Tourism, has developed a poster for creating awareness to save Wular Lake. The multi colour poster has been disseminated through workshops and school programmes organised by CEE and INTACH.

18.6 Year Planner on Disaster Risk Reduction

With the aim of developing Disaster Risk Reduction (DRR) preparedness and promoting disaster reliance in schools and the community, CEE Himalaya, with support from JSW Foundation, brought out two year planners: one for schools and the other for the community. The year planner for schools focuses on school safety during earthquakes, floods, fire, landslides, and the common disasters that occur in the mountain areas. The community year planner focuses on DRR awareness, training and preparedness, especially developing Village Contingency Plans and School Disaster Management plans. Do's and don'ts, keeping important telephone numbers, emergency and first aid kits handy, and other relevant messages have been communicated through these knowledge products. The dissemination was achieved through the state Departments of Education.

18.7 Short Films on Medicinal and Aromatic Plants of Uttarakhand

CEE Himalaya, with financial support from the Centre for Forestry and Natural Resource

Management Development, and Uttarakhand Forestry Training Academy, Haldwani, made 40 short video films on the identification and description of 40 medicinal and aromatic plants of Uttarakhand, Central Himalaya. The films will be used during trainings to introduce to the participants the medicinal and aromatic plants of Uttarakhand. CEE was awarded this project after its successful implementation of the UNDP-GEF-SGP supported GoI-UNDP project Mainstreaming Conservation and Sustainable Use of Medicinal Plant Diversity in Three Indian States in which the focus was on developing a communication strategy and tools for the diverse stakeholders involved.

18.8 Green Stories: Stories from NGC-NEAC Programmes in Northeast Indian Schools

The aim of this project was to document and publish 100 stories/case studies from North East Indian schools on their hand print activities carried out under the National Green Corps (NGC) and National Environment Awareness Campaign (NEAC) programmes.

About 150 schools from the Northeastern states (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura) were selected in consultation with the respective state nodal agencies and on the basis of reported eco-club activities and monitoring visits. Information (data and photographs) was collected from these schools either directly or through nodal agencies. Out of these, 100 eco-club stories were converted into case studies, for the selection of which the criteria were innovativeness and uniqueness of the activities, and uniqueness of the geographical and cultural background. With the approval of the MoEFCC, the case studies were printed as a book titled *Green Stories*.

18.9 Samsung Ecogeneration Modules

CEE developed three modules for the Samsung Ecogeneration Modules project. These modules were developed to aid volunteers from Samsung to conduct sessions on specific topics in schools. Each module consists of a Powerpoint presentation and a Handbook which takes the volunteer through the steps they need to follow in order to deliver the session and includes detailed information on the concepts presented in the Powerpoint. Each one hour module includes an introduction, an ice breaking activity, explanation of concepts, an activity to reinforce the concepts and feedback forms.

The three modules developed and delivered during the reporting year were: Air, Ecosystem and Living Green. The presentations were made interesting with more visuals and less text. Activities to reinforce an important concept of the topic were developed which could be conducted in the classroom. Lots of related and interesting information were included in the Handbook so that the volunteer-teacher would have enough material to conduct the session and make it interesting.

CEE Kannur handled the content development for the modules while CEE Ahmedabad and the Studio were involved in the layout and design.

18.10 Booklet on Climate Change in Hindi

CEE North developed a booklet on Climate Change in Hindi on the occasion of World Environment Day, around the theme Small Islands Developing States. The booklet was developed on request from the Directorate of

Environment, UP Government for dissemination among students and communities at various locations in Uttar Pradesh. The theme for the book was drawn from the CO2: Pick Right package on climate change awareness experience and has focused on hand print actions. Over 1000 copies of the booklet were distributed among students, youth and the general public.

18.11 Booklet in Hindi on ESD Activities

CEE North being the Hindi back office, trans-adapted a booklet developed on the interactive speech of Prime Minister Shri Narendra Modi which was delivered on the occasion of Teachers day. Taking clues from his ideas on education for environment and sustainable development, educational activities were designed and a booklet was developed originally in Gujarati. To spread the word, this booklet was translated into/developed in several languages starting with English and Hindi.

Institutional Development and Support

19

19.1 Centre for Environment Education – Information Service Centre (CEE-ISC)

CEE - Information Service Centre (CEE-ISC) has been established with a view to provide 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.

ISC has a rich and diverse collection of books (20000), journals and periodicals (69) in a number of areas related to ESD such as environment, development, wildlife, biodiversity, community work, socio-economic issues, etc. CEE ISC also has a very good collection of reference books, a special collection of children's books, textbooks, Hindi and Gujarati books. ISC also has a collection of educational products published/produced by CEE.

The CEE ISC operates on all working days during 10 am to 5 pm and remains closed on Saturdays and Sundays.

During the year 2014-15, the ISC has started automating its collection through Koha, an international open source Library Management Software. The online public access catalogue (OPAC) can be accessed at Ahmedabad campus currently through the following link - <http://172.16.9.37/>

For the financial year 2014-2015, ISC has acquired 352 books, and continued to subscribe to the 69 journals and periodicals.

During the year, CEE ISC organised reading festivals, film screenings and book fairs. Three meetings of the CEE Library Committee were

held during the year. Key agenda addressed at these meetings included automation of the CEE library and innovative events that would help inculcate reading habit among the staff members while helping announce news/happenings at CEE Library to the staff members.

19.2 Corporate Communications

Corporate Communications was integrated as a functional responsibility at CEE in September 2014. The team has, in a span of seven months, ending March 2015, executed the following activities.

19.3 CEE India Website

The Corporate Communications team has initiated the work on revising the structure, and updating the content of CEE India website.

As the first step towards making the CEE website more users friendly internally and externally an exclusive section on the Centre's Programmes and Projects is being developed. This page will act as a ready reckoner to CEE's programmes, featuring details about their initiation, partners, impact and beneficiaries. All programmes, since the Centre's inception in 1984, will get documented in this manner, thus enabling quick and effortless access to information.

The team is in the process of collating relevant and accurate information on various programmes in a standard format, from the concerned groups/departments and will be uploaded on the webpage at the earliest.

Besides, during the aforementioned period, the team ensured regular updates of the Centre's activities on the website. This included updates and coverage during the

International Conference held in Nagoya (Japan) in November 2014, the Vibrant Gujarat Summit 2015, the CEE 30 - Annual Week celebrations held in February 2015, and the Handprint Awards ceremony organised in February 2015. The website also featured activities organised by other offices, like the workshop organised by CEE Goa for Range Forest Officers and the International Mountain Day 2014 celebrations organised by CEE Himalaya.

19.4 Ceenario

The Corporate Communications team ensured the publishing and circulation of Ceenario during the year 2014-15. Beginning from September 2014, all seven issues of Ceenario, till March - 2015, were successfully brought out. These featured the programmes undertaken and initiatives made by various offices across the country.

19.5 Diary 2015

The CEE Diary for 2015 incorporated a significant change in its presentation, as opposed to the previous years. The Diary, this year, carried a carefully crafted Handprint message on every page, thus encouraging Handprint actions among the users. Besides, the cover page, with its marine theme, connected to CEE's international programme 'Global Citizenship for Sustainability (GCS).

19.6 Brochures

Two brochures that present group-led initiatives and programmes were designed and developed.

- Water - The Source of Life was a specially designed brochure, which provides a quick

glimpse into some of the key water-specific programmes initiated at CEE.

- The brochure Working Together ~ Rebuilding Lives was developed for CEE's relief and rehabilitation work in the flood-affected regions of Jammu and Kashmir, in September 2014.

19.7 Other Promotional Material: CEE and the UN (Booklet)

A 24-page booklet highlighting CEE's close association with the United Nations was designed and developed in January 2015. The Corporate Communications team worked closely with other groups, especially the HID FC, in developing the content for the booklet, which encapsulated CEE's programmes and pioneering initiatives in collaboration with the UN.

19.8 Media Coverage

Some of the prominent initiatives by CEE received positive coverage in the local media. These included the Centre's commendable feat of training 150 Afghanistan educators, the international conference intended to be organised in January 2015, and the Handprint Challenge awards organised in February, 2015.

19.9 Books, Publications and Magazines

Article in India Today: The news magazine *India Today* featured the Director in its October 2014 issue. The article presented Mr. Kartikeya Sarabhai's views on how Gujarat could become the Gateway to the World. Coinciding with the Chinese Premier Xi Jinping's visit to India, the article reminisced on the glorious

history of Gujarat and underscored the state's contemporary competence.

19.10 Events

Vibrant Gujarat Summit 2015: CEE participated at the 7th Vibrant Gujarat Summit (VGS), organised in Gandhinagar, in January 2015. Working closely with the Director's Office and other groups, the Corporate Communications team coordinated the presence of CEE at the Summit.

The Centre's stall at the Summit attracted many visitors and garnered positive feedback, even as the interactive discussion on Partnerships & Synergies ~ School Education

and College Education witnessed active participation from the visitors. CEE also signed some key MoUs at the Summit, including the one to scale up the existing Global Citizenship for Sustainability (GCS) school programme, and another for the Wetskills Water Challenges Programme.

Rotary Club Meet: The Corporate Communications team also coordinated the Intercity Zonal Fellowship Meet of the Rotary Club, organised in September 2014. The Meet was an extension of the Rotary-Sundarvan partnership, and witnessed eminent speakers from the field of education and social service sharing their thoughts.

20.1 Earth Day – April 22

CEE North: In association with Regional Science City (RSC), CEE North celebrated Earth Day at RSC Lucknow. With the highlighted theme being Green Cities, CEE and RSC organised a quiz and painting competition. More than 400 students and teachers from 29 schools of Lucknow participated in the event. The programme aimed to sensitise the students and teachers to the causes and negative impacts of climate change, and their own role in making their cities cleaner and greener.

20.2 International Day for Biological Diversity – May 22

CEE Himalaya: CEE Himalaya, along with the Forest, Environment and Wildlife Management Department, Sikkim, celebrated the International Day for Biological Diversity 2014 at Deorali Government Girls Senior Secondary School and Tashi Namgyal Academy. Saplings of 15 cherry and five rhododendron trees were planted by the students and teachers. The staff of the Forest Department guided the children during the time of plantation and then held a good interactive session with them. The technical



International Biodiversity Day celebration at the Government Inter College, Maneri, in Uttarakhand



Ongoing plantation activity at a school in Uttarakhand

staff also explained how our biodiversity gets affected when our forest and natural resources decrease. Both the schools used organic manure prepared in their respective school compounds by composting kitchen waste from their school mess. The students were also taught how to maintain the planted saplings as different species required different care and nourishment.

20.3 World Environment Day (WED) – June 5

CEE Himalaya: CEE Himalaya team spend whole day with mule owners and operators to celebrate WED 2014 near Kailash Ashram, Ujeli, Uttarkashi town, Uttarakhand, probably the first such celebration with mule operators in the history of Uttarkashi. The programme started early in the morning with the introduction of CEE Himalaya team and the mule operators. The team delivered a lecture on environment related topics which was followed by a discussion on the problems faced by mule operators. It emerged that the mule operators live in groups of 4-5 in rented houses in Uttarkashi town paying a rent of around Rs. 2000 per month. In normal days they get Rs. 260 as wages per mule per day. They do not get work in the rainy season,



Mule owners and operators near Kailash Ashram in Uttarkashi, join in for the celebrations for WED 2014.

when they have to engage in labour work if available.

CEE North: CEE North, in association with the Regional Science City (RSC), organised an event for students where several learning with fun competitions were held. The programme began with an *enviroword-jam* where students were given an environment topic related to the day's theme on which each participant had to present their thoughts without any pause. Two films were shown to the students next followed by a quiz based on them. Participants also listened to a presentation on the experiences of an Indian Scientific Expedition to Antarctica, which gave them an insight into how scientific research is helping in assessing level of climate change. More than 500 students, teachers and parents participated in the day's programme.

CEE Goa: CEE Goa State Office organised WED activities based on the UN theme. A poster competition for children was organised, as also presentations on best practices in waste management by Panchayats and Sustainable Development initiatives by the industries. Prizes in each category were given away at the multi-purpose hall of the Sanskruti Bhavan,

Panaji, by the Hon ble Minister for Forest and Environment, Government of Goa. CEE also collaborated with the Goa Science Centre, Miramar, to celebrate WED by conducting poster and quiz competitions for students on the UN theme *Raise your voice, not the sea level*. About 150 students from different schools participated in the events.

CEE Tamil Nadu: CEE Tamil Nadu organised an awareness talk /session on the theme *Raise your voice, not the sea level* for the state officials of Tamil Nadu Empowerment and Poverty Reduction Project (TNEPRP). The team also conducted an e-waste collection campaign with the staff and distributed saplings and seeds to them.

20.4 International Tiger Day – July 29

CEE North: CEE North hosted a children's painting competition on the occasion of the state level event on International Tiger Day organised on July 29, 2014, by UP Forest Department and UP Tiger Conservation Authority. The event began with a painting competition for children in which more than 250 students from 10 schools participated. The topic given was *Save Tiger- Save Forest*. The judges of the competition were very impressed with the ideas portrayed by the students. The State Minister of Forests and Wildlife viewed the students' paintings later and awarded the prizes to the winners. He said that students' understanding and love towards this species and its home is the only hope for its future.

20.5 Wildlife Week – October 2-8

CEE Goa: CEE Goa State office, in collaboration with the Goa Forest Department, celebrated Wildlife Week by organising various activities

such as drawing competition, essay writing, elocution and quiz. Around 100 students participated in these activities.

20.6 Global Hand Washing Day/ Week

CEE Himalaya: With the support of UNICEF, CEE Himalaya celebrated Global Hand Washing Day on October 15 and Global Hand Washing Week during October 13-18, 2014 in five Gram Panchayats (Khardauri, Baibheet, Sahdeiya, Vishambharpur and Chawai Bujurg) of Nyay Panchayat Khardauri, Balrampur District, UP. The week was celebrated with school and *anganwadi* children, their parents and villagers, with the objective of sensitising them about the importance of hand washing and its benefits. Participants, who numbered more than 1600, were school children, Principals, teachers, *anganwadi* children, workers and assistants, Gram Pradhan, parent other villagers.



Pledge taken towards handwashing activity in Nyay Panchayat, Khardauri

20.7 International Mountain Day (IMD) – December 11

CEE Himalaya: CEE Himalaya celebrated IMD 2014 across the Indian Himalayan Region: in

Western Himalaya at Baramulla, Jammu & Kashmir and Hamirpur in Himachal Pradesh; in Central Himalaya in Uttarkashi, Uttarakhand; and in Eastern Himalaya at Gangtok, Sikkim. The celebrations were supported by JSW Foundation and RCE Srinagar of the United Nations University, Institute of Advanced Studies. This year's theme was Mountain Farming but CEE Himalaya added Sustainable Mountain Development also to this. Over 350 students, 30 teachers and NGO representatives, police and citizens shared their views on mountain development.

IMD was celebrated in Jammu & Kashmir in collaboration with Quality Education Training Institute at Baramulla, and with Him Academy Public School (HAPS), Hiranagar and Vikasnagar in Hamirpur, in Himachal Pradesh. In Uttarakhand, IMD was celebrated in two schools under the banner of JSW Foundation. The Station House Officer (SHO) of Uttarkashi introduced the IMD, discussed the issue of drug addiction and supported the rally that followed with police protection, which was joined in as well as covered by the local media. Participants cleaned five Ganga Ghats - Tiloth Ghat, Mando Ghat, Kedar Ghat, Manikarmika Ghat and Indirawati Ghat. In



Rally by school students on the occasion of IMD

Sikkim, IMD was observed in Ranipool ward of Gangtok city with the residents participating. The participants took a pledge to conserve nature and natural resources and to contribute their best possible efforts towards sustainable mountain development, disaster risk reduction and food security.

20.8 World Wetlands Day – February 2

CEE North: CEE organised a painting competition in Lucknow and Bareilly districts in January 2015 as a pre-event to World Wetlands Day. Teams from over 25-30 schools participated in the painting competition in each district. CEE team conducted an orientation session through a photo story explaining the theme for the day Wetlands - Save Our Future . Eminent persons from the field of biodiversity were invited to judge the competition and encourage the creativity of the children. Winning students were given prizes and the best entries were sent to the state level competition.

20.9 International Women's Day – March 8

CEE Himalaya: With support from UNICEF Lucknow under its ODF project *Swachh, Swasth, Sunder Khardauri*, CEE celebrated International Women s Day 2015 on March 16, 2015 (as the 8th was a Sunday) at Shriduttganj Block Office, Balrampur District, UP. Though the theme of the IWD 2015 announced by the UN was Empowering Women-Empowering Humanity , the same was linked to WASH activities being implemented in the area by CEE in order to achieve ODF status. More than 18 women along with four resource persons from Balrampur participated in the celebration with great enthusiasm.

20.10 World Water Day – March 22

CEE Himalaya: CEE celebrated the day under their project '*Swacch, Swastha, Sundar Khardauri* supported by UNICEF UP by organising an exhibition cum orientation workshop at the Block Office of Shriduttganj, Balrampur District with four key resource persons including the Gram Pradhan and community leaders, along with around 89 villagers, teachers and *anganwadi* workers. Key resource persons addressed the participants on the features, role and current status of available water bodies in the local area. They were also apprised of the importance of keeping water sources clean; using Indian Mark 2 hand pump water for cooking and drinking; keeping water storage pots neat and clean; keeping drinking water covered; using boiled water for drinking purpose during floods and rainy season; keeping a distance of 15-20 feet between water sources and toilets; reasons and need for preventing open defecation near water bodies; and diseases caused due to polluted water.



Participants learning about the features and current status of available water bodies

20.11 Prakriti Sanrakshan Sankalp Diwas

The first anniversary of the Uttarakhand tragedy of June 2013 was observed on June 17,

2014 in several locations as *Prakriti Sanrakshan Sankalp Diwas* (PSSD). A series of events were conceived and conducted at the behest of the Union Minister for Water Resources, River Development and Ganga Rejuvenation, Ms. Uma Bharti. CEE was assigned by the National Mission for a Clean Ganga (NMCG) to conduct these events at seven locations ~ Gangotri, Haridwar (held by CEE Himalaya), Kanpur, Allahabad, Varanasi, Patna (CEE North), and Farakka (CEE Kolkata). At three more locations ~ Delhi, Nabadweep and Gangasagar ~ CEE teams assisted WAPCOS and Central Water Commission in organising similar events. The Hon ble Minister attended the event at Yamuna banks in New Delhi.

At all 10 locations, the events were conducted on river banks to focus public attention on the need for conservation of rivers alongside other environment protection measures, to minimise the risk of similar disasters in future. The programmes included observance of *maun* (silence) in memory of the victims, pledges for protecting mountain and river ecosystems, planting of saplings, symbolic clean up drives, *pooja* and *deep daan*. In some locations, painting competitions for children, distribution of pledge fliers, distribution of saplings, cloth bags and caps were also conducted.

Speeches by dignitaries focused on what we should learn from this disaster and how we need to work towards sustainable development while ensuring the protection of environment. It was emphasised by several speakers that protection of river habitats and biodiversity also needs to be part of our strategy and action plan to minimise disaster risk and ensure safe and sustainable development. Over 300-350 participants attended each of the events.

Role of CEE: CEE North developed the concept of the events and designed the conduct of

these events with inputs from NMCG. For the events in multi-locations, teams were identified and given responsibility for arranging the venue, travel and transportation, communication, refreshment, volunteers, and other local logistics at the different locations. CEE team developed a logo for the campaign and materials were developed around the overall theme of the programme.

The participants were also provided with take away material with information on the conservation of mountains, its biodiversity and its aesthetics. The noteworthy highlight of the iconic event was the huge response it got from the people, the environmental awareness campaign and related pledge signing, symbolic cleaning drive of ghats/riverbanks, painting competition for the children, and spiritual speech by many saints on disaster and its prevention.

20.11.1 Gangotri, Uttarakhand

In Gangotri, the programme was organised in the Gangotri temple for the remembrance of the Uttarakhand disaster as *Sankalp Diwas*. More than 300 people from adjoining villages and representatives from political parties, civil



Speakers and participants on the occasion of Sankalp Diwas

society groups, media representatives and youth volunteers participated in the event.

The programme started at 9.00 a.m. with a prayer at Ganga Ghat for the peace of the souls of people who lost their lives in the flood. The President of Gangotri Panch Mandir Samiti welcomed the guests and other resource persons and said that we should stop encroachment of River Ganga and should take care of nature; otherwise we should be ready for the same consequences as last year's disaster. Speakers pointed out that activities on/near the river like hydroelectric projects, deforestation, melting of glaciers (that feed rivers in India and China) for making bottled water, construction of roads and hotels, etc. were all contributing to such natural disasters. Thereafter many speakers and experts on disaster mitigation presented their thoughts and feelings on River Ganga. A representative of the Indian Army recalled the army's rescue efforts during last year's disaster. A member from the Central Water Commission briefed about CWC's work on conservation and utilisation of water resources for irrigation, navigation, drinking and flood control. Followed by this, plantation of the saplings of Devdar, Pine, Oak, Apple, Kail, etc., was carried out in the nearby forest. All the participants joined in cleaning of the river ghats. They also recited pledges and took oaths to save the river and preserve nature. A local band sang a song in memory of the flash flood victims. The programme ended with participants taking a pledge to protect and conserve River Ganga and its rich diversity.

20.11.2 Haridwar, Uttarakhand

The programme was organised at Divya Prem Seva Mission, Chandighat, Haridwar. The event was the joint initiative of CEE, NMCG, CWC and WAPCOS. Participants including



Programme being organised at Chandighat in Haridwar

government officials, representatives and office bearers of the political system, the mayor, youth, women, *sadhus*, NGO and media representatives attended the programme. The programme started with the City Mayor of Haridwar paying a tribute to the victims of the disaster. Following this, the city legislative members of Haridwar and Ranipur emphasised that it is the ignorance and disrespect of man towards the environment which has led to the flood events. Two minutes of remembrance or *maun* was observed by the participants, following by a pledge. Next day, the office bearers and inmates of Sewa Kunj gathered again and did *Deepdan* ~ an offering of 50 lamps in the river Ganga at Chandighat. Followed by this, a tree plantation ceremony was conducted by planting five saplings each of Aam, Baheda and Jamun. This was followed by the Ganga cleaning drive at Chandighat with active participation by the community members. About 200 students from a local school took part in drawing and painting activities.

20.11.3 Kanpur, Uttar Pradesh

The *Sankalp* Day programme organised in Kanpur started with a painting competition

in the morning on the theme Ganga Erosion, Ganga Pollution, and Natural Disaster, in which around 50 students participated. In the evening, children, youth, women, *sadhus*, and other members of the public gathered at the Sarsaiya Ghat where the programme began with a *hawan* to pray for the peace of the victims souls. All the participants took a pledge to conserve the environment and Ganga. This was followed by a plantation drive in which key people planted saplings of Ashoka in a nearby park.

A representative from CEE North welcomed all the participants and presented the theme of the day and said that we need to focus on the behavioural change of human beings towards nature and natural resources. A representative from Nagar Nigam, Kanpur, said that the Uttarakhand disaster was the result of our unconsciousness towards the nature. In his address, he compared River Ganga to his mother and averred that she deserves the same care as we give to our mother. Representatives from CWC, local organisations, media members, youth and students attended this programme. Towards the end of the programme, all guests and participants moved to Ganga river bank for taking part in *aarti*. Participants were also requested to give a written pledge to safeguard nature and its components.

20.11.4 Allahabad, Uttar Pradesh

The event was organised at Ramghat Harihar Arti Sthal, Allahabad. The Chief Guest of the programme was a retired judge, while many dignitaries such as the Member of Parliament of Phoolpur constituency, experts from universities, the Executive Engineer of the Central Water Commission, and representatives of 65 organisations attended this programme.

A series of events were conducted during the day, starting with the Ganga *Safai Abhiyan* at 6.30 am by 65 organisations of Allahabad and Kaushambhi districts. Enthusiastic people even started taking out waste from the river with their bare hands. About 45 students participated in the drawing competition organised after this. In the afternoon, a signature campaign was organised with the help of students from the District Institute of Education and Training (DIET) and around 677 People took a pledge during the campaign. In the evening, the event began with a plantation ceremony followed by talks by experts and distinguished guests. Towards the end of the programme, a one minute silence/*maun* was observed by the gathering in remembrance of those who died in the Uttarakhand tragedy. The programme ended with participants taking a pledge to conserve Ganga River.

20.11.5 Varanasi, Uttar Pradesh

At Varanasi, the event was organised at the Rajendra Pasad Ghat where the main agenda was to pay tribute to all those who had lost their lives on that fateful day, to reflect upon the environmental reasons behind it, and what could be done to avoid such disasters in the future. The day's activities started in the morning, with a painting competition organised for the students of District Institute of Education and Training, focusing on positive actions required from human beings to avoid such disasters in the future. Over 200 students participated in the event.

In the evening, the programme started with a representative from CEE welcoming all the guests and participants and briefly touching upon why this day was being observed as *Prakriti Sanrakshan Sankalp Day*. Thereafter, all the participants observed silence for one

minute in memory of those who lost their lives in the tragedy. To give the evening an auspicious start, girls from the Panini Mahavidyalaya performed *Mangalacharan*. Distinguished guests and experts from CWC and Banaras Hindu University, and a representative of a saints group presented their views on the Uttarakhand disaster and what actions and efforts are to be taken to ensure that prevent such incidents in the future. Towards the end of the programme, all the participants took a pledge to conserve nature and not to repeat our mistakes. All participants were handed *diyas* by the volunteers and they took the pledge with the *diyas* in hand, which were later placed in front of the pledge wall.

20.11.6 Patna, Bihar

In Bihar, the event was organised at Gandhi Ghat, Patna. The Head of Zoology Department, Patna University, was the chief guest for the programme and the Member Secretary, Pollution Control Board, Patna; Chief Engineer, Central Water Commission; and an ex-Minister of the Bihar State Government were present during the event. More than 350 participants attended the programme.

Prior to the main programme, on June 16, a painting competition was organised at the Resonance Centre, where more than 15 students participated and presented their views and perceptions on Ganga through colours and sketches. The day started with a slogan writing competition which was organised with a group of Kilkari students of Balbharti Group at Patna. The subject of the slogan writing competition was Conservation of nature and making River Ganges Pollution Free. These students came out with very well thought out messages which were later displayed at the venue of the *Sankalp Diwas*.

The evening programme started with ghat cleaning, after which a cultural group presented *Ganga Vandana* in Bhojpuri. A one minute *maun* was observed after which the guests planted saplings of *Ashok*, *Kachnar* and *Aonla* at the venue. Experts then shared their views and urged the audience to stop polluting Ganga and to put in individual efforts for this. The programme concluded with the crowd taking a common pledge to conserve and protect Ganga, Ganges Dolphin and Mother Earth.

20.11.7 Farakka, West Bengal

The *Sankalp Diwas* event was organised by CEE Kolkata at Gandhi Ghat, Farakka, West Bengal. Many eminent personalities from local administration, CWC, Farakka Barrage project, representatives from local NGOs and media were present during the event. The programme started in the morning with about 150 school students lighting candles at *Smriti Bedi* in memory of people who died in the disaster. This was followed by a drawing competition on Ganga Pollution and ways to Conserve Ganga in which around 180 students participated. The competition was followed by a plantation activity, where invited guests planted saplings of five local floral species (teak, jackfruit, shegun, shishoo, and raintree) on the banks of the Ganga and 75 saplings were distributed to the Heads of Schools for plantation and nurturing. This was followed by a welcome by the representative of CEE. The representative from CWC presented his views and stressed the need to safeguard the banks of the River Ganga for our own survival. Similarly many more experts shared their views and opinions and cautioned people to adopt a sustainable life-style to ensure the survival of all. The event concluded with participants taking a

pledge that describes five ways to save Ganga and make it pollution free. CEE Kolkata also facilitated the Nabadweep programme in West Bengal.

20.12 PlastIndia Exhibition 2015

CEE participated in the PlastIndia Exhibition 2015 held in Gandhinagar from February 5-10, 2015 by putting up an exhibition comprising 11 panels on the theme of Waste is a Resource . The theme was chosen so as to

bring awareness and encourage visitors and business firms to take up waste management as a business enterprise. Approximately 1.5 lakh visitors visited the exhibition which showcased the management of plastic waste and e-waste, and highlighted best practices and Handling Rules.

The Polyloom technology of recycling polyethene bags of size less than 40 microns was also showcased with a display of products made using it.

Facilitation, Networking and Participation

21

21.1 Facilitation

21.1.1 Information and Facilitation Centre, 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 (ESD), 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 information about latest publications. A database on participants to IFC's various programmes and visitors to the IFC is prepared and updated on a regular basis. It has over 3700 addresses listed to whom event information and updates on special programmes at CEE are sent.

21.1.1.1 Orientation to Environmental Education Packages

These were 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.

School groups: The IFC facilitated visits from many schools of Ahmedabad, varying from children of pre-primary classes to those from senior secondary. The IFC also had the opportunity to work with a group of visually challenged students from Blind People Association (BPA), a prominent organisation of Ahmedabad.

Table: No of Groups that Attended the Orientation Programme of IFC

| Group | Number | No. of participants |
|----------------------------------|--------|---------------------|
| Schools | 20 | 1500 |
| University students and trainees | 5 | 250 |
| Groups supported by NGOs | 2 | 150 |
| Summer Programme students | 1 | 110 |
| Walk in Visitors | | 500 |
| Total | | 2525 |

Besides offering the Orientation package, the IFC facilitated field visits to Nature Education sites developed by CEE, namely, the Manekbaug Lokvan and Sundarvan. 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, (Vikram Sarabhai Centre for Development Interaction (VIKSAT) and Vikram A Sarabhai Community Science Centre (VASCSC).

21.1.1.2 Birthday Package

IFC organised three 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 focusing on the environment. The birthday girl or boy plants a sapling and has her/his name tag on it. Friends were given educational products developed by CEE as return gifts.

21.1.1.3 Safe Festival Campaign

Diwali Safe Festival Campaign: As part of this, posters were put up at various places talking about safe festival celebration, and mailers sent to people making them aware about the health hazards and pollution created due to crackers

Holi: 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 made available to people from different outlets located at VASCSC, H.B Kapadia School, (Memnagar Branch), and the IFC. The colours were procured from AURA Herbal wear - organic products entrepreneurs in Ahmedabad. Posters were put up at different locations and pamphlets with tips on making homemade colours were distributed. The process of making natural colours at home was also demonstrated in 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.

Go Green Ganesha Campaign - CEE celebrated an eco-friendly Ganesh Chaturthi with Go Green Ganesha campaign on August 26-27, 2014. The two day campaign included workshops for primary and pre-primary school students. Traditionally Ganesh Chaturthi was a small and intimate family affair where people used the fertile soil from river banks to create their own Ganesha idols. With time however, the festival has become a large scale commercial and community-based event involving Ganesh idols which can be as tall as 70 feet and made of Plaster of Paris. These are later submerged in the river water and, since they are non-biodegradable, they cause extensive pollution. The Go Green Campaign at CEE was an attempt to make children realise the impact of celebrating Ganesh Chaturthi in this manner. Through presentations and stories, they were acquainted with the story of Lord Ganesha and taught the value of enjoying the festival without harming the environment. They were taught to make small Ganesha idols of clay.

21.1.1.4 Summer Programme for Children

A special vacation programme for 110 children of the age group 6-13 years was conducted by the IFC in May 2014. The month long programme was divided into four weeks, each coordinated by a subject specialist from CEE. Themes included Diving into the Oceans, Sea Shells on the Sea Shore, Blue Planet and Coastal Heritage. This was designed based on the World Environment Day theme Raise your voice, not the sea level announced by UNEP.

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 and conducted puppet shows on the World Environment Day of the products and materials they developed during the summer programme. Mailers and invites were sent to the general public so that they could view the exhibition and the children's work during the summer programme.

Products like paper bags, candle stands, lampshades and traditional *diyas* were exhibited at the IFC. These were procured from organisations like UTTHAN and Blind People Association (BPA) - products made by mentally challenged children and blind people respectively.

21.1.1.5 IFC Memberships

IFC offers membership to the citizens of Ahmedabad that will entitle them to participate in various activities, invitations to popular lectures and events, and access to CEE's facilities like the library.

21.1.1.6 Information Counter for MoEF&CC

The Ministry of Environment and Forests and Climate Change (MoEF&CC) 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 Ministry carry out this function at a national level, a lot of relevant information on the Ministry's programmes are being made available through CEE's IFC at MoEF&CC. This counter has been run by CEE since December 2005. The IFC has the following facilities for visitors.

- A Helpdesk where staff provide broad-based information to visitors (both general public and officials) about the Ministry and its Divisions; contact details of officers; directional guidance; the Ministry's structure and organization; and its schemes, programmes, etc. More than 50-60 visitors are serviced on an average working day; this number swells during certain intervals - e.g. during the vacations, large numbers of parents and students come seeking information and material for class projects and exercises.
- A display and reference area for publications of MoEF&CC and its ENVIS Centres
- A touch-screen computer where visitors can browse MoEF&CC information from its website
- Distribution of MoEF&CC Annual Reports, Funding Schemes and other publications, and sale of priced publications.
- Guidance regarding application procedures for import, handling and disposal of hazardous substances including batteries; EIA clearances of different projects; applications for research and funding schemes, etc.
- Assistance in retrieving information about the status of various applications (for environmental clearances, project proposals for funding, grant applications under different schemes). IFC staff also help link up the visiting applicants to the concerned officers in various Divisions so that clearance-related technical queries can be settled efficiently.
- Receiving and processing RTI applications from applicants (the in-person channel).

When required, IFC staff also coordinates with concerned Divisions to arrange physical inspection (under MoEF&CC custody) of records by applicants.

- Since January 1, 2014, IFC has also started receiving appeals and notices for this Ministry, under the National Green Tribunal Act. These are processed through the Legal Cell of the Ministry.

From July 2014, the Ministry shifted to its own new building at Jor Bagh, New Delhi. The IFC has been allotted space in Prithvi Block, Ground Floor, Indira Paryavaran Bhawan, where the CEE team shifted its equipment and materials, and operationalised the IFC. From July 2014 to March 2015, the IFC team also performed reception duties at MoEF&CC as the dedicated reception staff from the Ministry of Home Affairs was yet to be posted there.

In November 2014, the Ministry notified CEE that it would take over the functioning of the IFC, in keeping with the instructions of the Government that all internal services must be run by the respective Ministries through their establishment/ administration sections. Therefore, towards the end of FY 2014-15, efforts were underway for a smooth handover of operations and inventory.

21.2 Networking/Visits

21.2.1 Development of Sustainable Asian Rural Communities based on Conservation and Appropriate Use of Biological Diversity

The Japan Council on the UN Decade of Education for Sustainable Development (ESD-J), since its establishment in 2003, has been making efforts to develop a network of Asian NGOs on ESD. As a part of its efforts, Asia

Good ESD Practice Project (AGEPP) was initiated in order to document outreach efforts for local sustainability by NGOs, especially in remote and/or peripheral communities where the support provided by governments and international organisations often do not reach. Later on, the AGEPP member NGOs established the Asia NGO Network on ESD (ANNE). CEE is an active partner NGO in the AGEPP network and also plays an active role in the development of the ANNE network with ESD-J.

As a part of the ANNE commitment towards 2014, ESD-J is taking the lead in the project Development of Sustainable Asian Rural communities based on Conservation and Appropriate Use of Biological Diversity, funded by Toyota Environmental Activities Grant Programme 2014. CEE is the Indian partner of ESD-J and the project will build on CEE's *Gram Nidhi* project as a case study and develop a *Gram Nidhi* Training Module.

As part of the project, the ESD-J team members Mr. Yoshihira Natori and Ms. Fumiko Naguchi made a field visit to Jasdan to study *Gram Nidhi* in May 2015. They met the SHGs and eco-entrepreneurs who have received *Gram Nidhi* loans and tried to understand how the project not just provided them with finance but also gave all necessary entrepreneurial skills, which is at the base of the success of *Gram Nidhi* Project. They also explored the ESD component of *Gram Nidhi* for wider application of ESD for biodiversity education in the Asian community.

As part of finalising the draft module developed by CEE on *Gram Nidhi*, Mr. Ramesh Savalia and Mr. Suman Rathod from RPG, participated in the Asia NGO Network on ESD International Workshop at Okayama, Japan, organised by ESD-J. The partner NGOs

together held a formal ANNE launching ceremony and workshops on Development of Sustainable Asian Communities based on Conservation and Appropriate Use of Biological Diversity. Mr. Ramesh Savalia made a presentation of the case study of *Gram Nidhi* as CEE's community based ESD approach during this workshop.

The training module will be finalised based on the input-feedback received during the conference. It aims at training NGOs in five other Asia-Pacific countries - Indonesia, Japan, Philippines, Korea and China - to learn from the *Gram Nidhi* experience and replicate it with adaptation to local context, particularly ESD for biodiversity conservation.

21.3 Participation

Conferences/Seminars/Workshops Attended/ Conducted by CEE Members

Ms. Reema Banerjee

- Was invited as a speaker for a Youth Networking Meet organised at the American Centre, Kolkata, in collaboration with the Earth Day Network and ITC Hotel on August 26, 2015. The goal of the meet was to increase youth's awareness that, through the choices they make in their everyday lives, they contribute to the preservation or degradation of their natural surroundings. Ms. Banerjee spoke about the role youth can play in mitigating climate change through lifestyle changes. She also talked about the ongoing programme that CEE is handling on youth, waste management and climate change issues.

Ms. Himashree Bhattacharyya

- Made a presentation on Eco-club activities in Stella Higher Secondary School, Kohima.
- Was a resource person for the NGC teachers training programme in Sikkim.

Mr. Nabajit Das

- Participated in the National WASH in Schools Leadership Course organised by UNICEF and Administrative Staff College of India in New Delhi.
- Was a resource person in Training on WASH for teachers, members of SMC and Mothers Group of the Reading Enhancement Programme (REP) schools in Dibrugarh.
- Was a resource person in the Multi Grade Multi Level (MGML) teachers training on WASH organised in Jorhat, Titabor, Assam in 2014 and again in 2015.

Mr. Uttaran Dutta

- Was a Resource Person in Odisha NGC Master Trainers Training organised by CPREEC.
- Delivered a lecture in Seuj Prayas Teacher Training programme in Goalpara on Pedagogy of EE.
- Was a Resource Person for the Eco-club teachers orientation programme in Tripura.

Dr. Abdhesh Gangwar

- Attended the UNDP-GEF supported meet of Medicinal Plants Conservation Area (MPCA) and Medicinal Plants

Development Area (MPDA) at Bastiya, Uttarakhand on March 2-3, 2014, on establishing Village Eco Corner (Community Managed Interpretation Centre) to promote the MPCAs and MPDAs, and local communities acquiring benefits by strengthening the rural herbal health care system and earning a livelihood through conservation and cultivation of medicinal and aromatic plants.

- Participated in After Action Review (AAR) Meet of the UN Global Sanitation Fund-Promoting Sustainable Sanitation in Rural India programme on April 9-11, 2014 at Guwahati, organised by Natural Resource Management Consultants, New Delhi. CEE Northeast has been implementing this project on achieving ODF environment in Behali block, Assam and its progress was presented at the AAR.
- Participated in NEAC 2013-14 Uttarakhand - Partner NGOs orientation meet at Dolphin Institute, Dehradun on May 27, organised by the Regional Resource Agency, Punjab State Council for Science & Technology, Chandigarh, to orient partner agencies on effective implementation of NEAC projects, coordination with concerned government departments and amongst the NEAC other partners in the state.
- Visited Japan during November 3-12, to attend the 9th Global RCE Conference at Okayama (held during November 4-7, 2014), the International Conference on Higher Education for Sustainable Development (held on November 9, 2014) and the UNESCO World Conference on ESD (held on November 10, 2014) at Aichi, Nagoya. Abdhesh's participation and all the events were supported by the United

Nations University-Institute of Advanced Studies.

- Participated in the World Bank organised orientation on technical assessments of *Swachh Bharat* Mission (SBM) at the World Bank Office at KG Marg, New Delhi on January 8, 2015. The technical assessment was proposed in four states and CEE was shortlisted for conducting it in Rajasthan and Chhattisgarh.
- Was part of the team consisting of CEE and Ernst & Young (E&Y - a consultancy services group) to conduct the World Bank supported technical assessments of *Swachh Bharat* Mission in Rajasthan to assess the effectiveness of the programme and consider the feasibility of World Bank extending loan for the SBM programme to the state. The assessment was conducted during January 18-24, 2015, in four selected districts representing a profile of sanitation in the state.
- Participated in the CEE-International Centre for Integrated Mountain Development (ICIMOD)-Swiss Development Cooperation (SDC) supported C+C Indian Himalaya Meeting on developing an exhibition on climate change and development for the Indian Himalayas on January 27-28, at SDC, New Delhi.

Ms. Rajeswari N Gorana

- Is an alumni of the ESD Leadership Training II, a programme of ESD ExpertNet, and is a member of the ESD ExpertNet. ESD Leadership Training and ESD ExpertNet are part of a GIZ ESD Programme of which India, Mexico, South Africa and Germany are part.

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- Was invited to the first Alumni Workshop of the ESD Programme held in Pretoria, South Africa between December 7-11, 2014. It was hosted by UNISA (University of South Africa) on behalf of ESD ExpertNet members in South Africa.
 - Was invited to the 8th ESD ExpertNet meeting held in Bonn during June 17-20, 2014.
 - Participated in the one-and-half day European Conference on Global Citizenship Education and the Post 2015 Framework, which was organised in Brussels on June 24-25, 2014, with an objective to discuss and contribute to a solid proposal on Education for Global Citizenship within the broader education goal in the Post-2015 Framework. Together, the participants brought out the Brussels Proposal for Global Citizenship Education. CONCORD in partnership with UNESCO, Global Campaign for Education, Oxfam International, CIVICUS, Beyond 2015, Education International, Engagement Global and the North-South Centre, organised the Conference, in conjunction with the Replenishment Conference of the Global Partnership for Education and the High-Level meeting on Education and Post-2015 of UNESCO and UNICEF.
 - Participated in the one day international conference organised by Engagement Global, Germany, in association with GIZ, BMZ in Bonn, Germany on June 16, 2014. The conference themes were: Social Inequality; Sustainable Consumption, Production and Trade; and Climate Change, which were discussed in the context of Sustainable Development, and how education could drive the transformation by addressing these aspects. Ms. Sanskriti Menon, Programme Director of CEE
- was one of the panelists for the session on Sustainable Consumption, Production and Trade and ESD.
- Mr. Bijoy Shankar Goswami**
- Was resource person in the Multi Grade Multi Level (MGML) teachers training on WASH organised in Jorhat, Titabor, Assam in 2014 and again in 2015.
 - Was a resource person in Training on WASH for teachers, members of SMC and Mothers Group for the Reading Enhancement Programme (REP) schools in Dibrugarh.
 - Participated in the National WASH in Schools Leadership Course organised by UNICEF and Administrative Staff College of India in New Delhi.
 - Acted as quiz master in a quiz competition on Environment, Health and Hygiene, organised by *Sarathi*, a Guwahati Based NGO.
- Ms. Madhavi Joshi**
- Was invited by the Hans Seidel Foundation India between March 7-15, 2015, to be a part of the South Asian delegation of experts to visit Brussels and Munich, for an interaction with the European Commission and visit to projects on water management in Bavaria.
 - Was invited to be the External Examiner for a PhD (Minor) Thesis of CEPT University.
 - Was Advisory Committee Member, Green Warriors Campaign of *Ahmedabad Mirror*; she developed the Evaluation Matrix for the jury members.
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- Was member of the Ahmedabad Cultural Heritage Cluster
 - Participated in Wastech 2014, an international summit and Expo.
 - Participated in Cleantech 2014 seminar and exhibition.

Mr. Simanta Kalita

- Was Resource Person in Odissa Master Trainers Training organised by CPREEC in August 2014.
- Presented a paper on the Role of Teachers in WASH in Schools at the National Seminar on Teacher Education, organised by SCERT, Assam.
- Participated in the National WASH in Schools Leadership Course organised by UNICEF and Administrative Staff College of India in New Delhi.
- Was invited to deliver a lecture on Career in Environment Education in Tata Institute of Social Sciences, Guwahati.
- Delivered a lecture in Don Bosco University, Assam, on Free Market Economy and its Impact.
- Made a presentation on the DHaAL Project in WASH in Schools Task Force Meeting of *Sarba Siksha Abhijan*, Assam
- Was invited to deliver a lecture at the State Level Workshop on Total Sanitation organised by Water Supply and Sanitation Organisation (WSSO).
- Delivered lectures on Pedagogy of Environment Education in Seuj Prayas Training Programme in Dibrugarh and Goalpara.

- Delivered an invited lecture at the Hindustani Kendriya Vidyalaya, Guwahati, on World Environment Day, 2014.
- Delivered a lecture at the State Level Workshop on Climate Change and its Impact on Agriculture, at the programme organised by Lotus Progressive Centre.
- Conducted the students camp on Elephant Conservation organised by SSA, Environ and Aitijya in the Orang National Park.
- Participated in a radio discussion on *Swacch Bharat Mission* as a subject expert; the programme was broadcast by All India Radio, Guwahati.
- Participated in a radio discussion on Climate Change broadcast by All India Radio, Guwahati, as subject expert.
- Participated in television discussions on Plastic Waste Management and on Pollution at Guwahati Doordarshan Kendra as subject expert.

Ms. Preeti R. Kanaujia

- Represented CEE in the governing body meetings of Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project (UP-PFMPAP) which were held in Lucknow at periodic intervals. As a member, she provided inputs in forestry management, environmental awareness and for other activities of the project.
- Was invited for a community radio live show on the theme of environment education and CEE s work in the region in July 2014. This live show was meant for the City Montessori School which has 20

branches and a total strength of more than 45,000 students. As part of the school's social responsibility, this has been initiated as a community radio station. The one hour live show received very good response with more than 30 calls received during the show. Common questions raised were related to change in lifestyle, increasing level of noise pollution, quantity of waste, decrease in forest cover, wastage of food and others.

- Has been nominated a member in the City Montessori School's Environment Core Group Committee which takes stock of environment initiatives and what needs to be done to improve the situation.
- Is part of the committee formed by Uttar Pradesh Forest Corporation (UPFC) to

discuss the possibility of initiating community driven eco-tourism in Suhelwa Wildlife Sanctuary. She attended several rounds of meeting and presented CEE's viewpoint and experiences of similar community initiatives.

- Is a member of the State Action Plan on Climate Change committee in Uttar Pradesh. The committee is chaired by the Principal Secretary, Environment and the nodal agency is the Directorate of Environment, Government of Uttar Pradesh. She participated in the meeting in September 2014 and gave inputs for developing educational programmes and materials.

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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. To work with the initiatives of the United Nations (UNESCO, UNEP, UNDP, UNFCCC, IUCN)
19. Research in EE and ESD
20. Collaboration and partnership at the international level in EE & ESD

CEE Websites

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| About CEE | www.ceeindia.org |
| For Children | www.kidsrgreen.org |
| Hand Print: Action towards sustainability | www.handprint.in |
| For the UN DESD | www.desd.org |
| For Youth | www.sayen.org |
| A nature discovery centre | www.sundarvan.org |
| For educators and ENVIS Centre on EE | www.ceeenvvis.nic.in www.greenteacher.org (archival) |
| For EE Materials | www.edutechindia.org |
| UNDP GEF Small Grants Programmes | www.sgpindia.org |
| Biomedical Waste Management | www.bmwmindia.org |
| Education and Communication for Mountain Ecosystems | www.ceehimalaya.org |
| Video Resource Centre | www.ceeavrc.org |
| Programme and Activities of CEE Australia | www.ceeaustralia.org |
| Paryavaran Mitra Programme | www.paryavaranmitra.in |



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