



Annual Report

2016 - 2017

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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From the Director's Desk

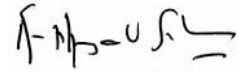
The year 2015-16 was a very significant year for Global decisions regarding the environment. In September 2015 the Sustainable Development Goals were agreed upon at the UN. The Climate Change agreement was reached in November 2015 at Paris. Responding to the challenge of implementing the SDGs and Intended Nationally Determined Contributions (INDC), CEE organised an international conference on ESD from January 11-13, 2016. In cooperation with MoEF&CC, Government of India, UNESCO and UNEP, it highlighted the role of education in achieving the Sustainable Development Goals.

CEE as a Centre of Excellence in Environmental Education (EE) implements over 100 projects at any given point of time on various EE and Education for Sustainable Development (ESD) related issues. With this, the role of education in its broadest sense, including training and capacity building, communication and creating public awareness, becomes a key strategy for achieving the SDGs. The January conference developed education strategies for each of the SDGs.

Over the last 32 years, CEE has implemented projects in partnerships at national and international level. CEE's partnership at grass root level has witnessed remarkable achievements in various initiatives, be it school education, higher education, rural development initiatives, climate change initiatives, biodiversity, water and sanitation and many more. CEE designed and developed the flagship mobile exhibition; Science Express Climate Action Special mounted on a train travelled to 62 destinations could spread climate change education and awareness among 24 lakh visitors in the country. Parampara - India's Culture of Climate Friendly Sustainable Practices brought together several Indian traditions that represent sustainable practices. The book was launched by the Hon'ble Prime Minister of India Shri Narendra Modi at twenty first session of the Conference of Parties (COP 21) to the UNFCCC in Paris, France, 30 November to 11 December 2015. The Parampara catalogue is a collection of a range of climate friendly traditions and practices from across the country which promotes more sustainable life styles, sustainable production and consumption.

CEE implemented programmes on Water Sanitation and Hygiene (WASH) in more than 700 schools in more than 7 states in India to complement the Swachh Bharat Mission (SBM). Through these initiatives CEE aimed to develop an Operation and Maintenance mechanism along with monitoring of WASH infrastructure and practices among children by involving different stakeholders in it. CEE's model WASH initiative "Daily Handwashing for an Ailment free Life (DHaaAL), which was implemented in Assam was replicated in many other states like Bihar, Rajasthan, Madhya Pradesh, Karnataka etc. CEE's initiatives are also highlighted in the Swachh Bharat Swachh Vidyalaya hand book prepared by the Ministry of Human Resource Development (MHRD).

CEE's primary objective of strengthening environmental education and awareness was also through its initiatives taken for National Green Corps (NGC), Paryavaran Mitra, Earthian, Mari Shaala, Swapnil Shala, Gyan Setu, CEE ka Bioscope and many other initiatives taken up nationally or at regional and state level. These initiatives have remarkably helped in achieving the SDG goal 4.7 which envisaged "By 2030 ensure all learners acquire skill needed to promote sustainable development, including among others through education for sustainable development and sustainable life styles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.



Kartikeya V. Sarabhai
Director

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Introduction

EDUCATION FOR CHILDREN

CEE, as the resource agency for National Green Corps (NGC) programme, provided technical support, guidance and relevant resource materials, and facilitated events in schools throughout the year. CEE team in Assam, Bihar, Chhattisgarh, Gujarat, Rajasthan and Uttar Pradesh organised series of environment related events and activities for NGC schools during the year 2016-17 on various occasions. Save Sparrow Campaign, Green Wave Campaign, summer vacation workshops, Run for Environment, Water, Sanitation and Hygiene (WASH) education programme, orientation programme on low carbon lifestyles and others were conducted by CEE for school students. Various campaigns like Safai Ke Sitare, Swachhagraha ke Reporters and Gandagi Se Azadi were organised in schools to promote Swachh Bharat Mission.

Paryavaran Mitra Puraskar (Paryavaran Mitra Awards), the annual award process, was a major activity carried out in 2016-17 and saw entries in the school, teacher and student categories from all over India. This year, five exemplars were recognised at the national level through a jury process. Paryavaran Mitra website was revamped in 2016-17 to a lighter version and is now the gateway to several ESD initiatives. A soft copy of the Paryavaran Mitra Teacher's Handbook is now available in English, Hindi, Urdu, Gujarati and Telugu on the website.

As part of the Children Forest Programme (CFP) 2016-17, CEE North team conducted 25 nature tours where over 2000 students along with 40-50 teachers from schools in Bareilly District of Uttar Pradesh attended. The year 2016-17 saw the Eco Schools programme gaining momentum in different states with newer schools expressing interest in being a part of

the programme. Under the Eco School Programme, schools in Lucknow and Pune were awarded the Green Flag in 2017 for exemplary work done.

The flagship activity for 2016-17 under the Environment Service Scheme (ESS) was 'preparation of nursery' at school level. Fifty three schools prepared nurseries with more than 14000 saplings of local plants. ESS schools partnered with Wipro for the Earthian Award. Marishala project, which is in its third year of implementation, is working with 60 primary schools in Halvad Block of Morbi District in Gujarat. In the academic year of 2016-17, 339 children were enrolled in schools through the efforts of the project team.

Project E-Guruji has been started by CEE Ahmedabad and Essar Foundation. The programme will facilitate 'Smart Class' in selected schools to provide quality education through advanced technology. At present, 350 students of classes 6-8 in the selected schools are facilitated to perform Maths and Science activities. The theme for Indradhanush 2017 was 'Connecting Science with Everyday Life'. This year, a wide range of activities, models, experiments, demonstrations and exhibitions were brought in for students to explore the science behind objects, activities and phenomena we experience as part of our daily lives.

The new features of 'Student corner and Question paper' in the Gyansetu application was shared with the teachers. Under the Gyansetu project, 50" LED TVs were provided so that the ICT material in the tablet could be projected. This year, the system has been installed in six schools which would be updated with feedback from the teachers who use it. CEE West with support from Tata Consultancy, Gandhinagar, introduced the

'Anadshala Gandhinagar' programme in four government schools of Gandhinagar.

CEE ka Bioscope programme reached out to 300 students of grades 7-9 during the year. A CKB Programme Manual, consisting of a set of two books, was finalised. As part of the Swapnilshala programme, capacity building of teachers as facilitators of education was conducted and the revamped school was handed over to the school authorities and community on August 19, 2016.

The Urja Chetana project won the Global CSR Excellence and Leadership Awards 2016 under the Developing Sustainable Strategies category for Calcutta Electric Supply Corporation Limited in the year 2016. The project directly benefited 175 teachers, 10,881 students and 27,071 community members during the year. Akshaya Patra and CEE for WASH developed communication material and portable hand washing units to showcase the ideal method of hand washing in schools. Over 3114 students, 166 teachers and 93 cooks were addressed during the year.

CEE facilitated the International Educational Exchange Programme in India organised by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) of Japan and the Ministry of Human Resource Development (MHRD), Government of India. Fourteen teacher participants from elementary and secondary education and non-formal education centres from India participated in this exchange programme held in Tokyo, Japan from November 6-13, 2016.

As part of the ESD Expert Net, CEE is developing educational material for middle school teachers on the 17 SDGs, and is part of the small group that is conceptualising a

mentoring programme which will be offered in 2017 in a virtual mode.

CEE Central Regional Cell is providing knowledge support and managing the Srushti Mitra Awards (SMA) programme for the Environment Department, Government of Maharashtra. The Award aims to recognise and acknowledge the efforts and actions for raising awareness about the conservation of the environment.

HIGHER EDUCATION

Two issues of Journal of Education for Sustainable Development (JESD) was brought out during the year.

Regional Centre of Expertise (RCE) Srinagar received the United Nations University – Institute of Advanced Studies (UNU-IAS) 2016 RCE Award for Innovative Projects in ESD in the 'Outstanding Flagship Project' category. The award was for its 'Climate Smart and Disaster Resilient Communities in the Indian Himalayan Region' programme that has contributed towards community engagement in Climate Change Adaptation and Disaster Risk Reduction across the Indian Himalayan Region.

RCE Kodagu was awarded for its innovative project titled "Nature Education Programme on Sacred Groves" as one of the flagship projects by the UNU-IAS.

In 2016-17, CEE offered Modules on Waste Management and Renewable Energy at Development Management Institute, Patna; Environmental Studies to the first year students of Chemical Engineering and ICT at Ahmedabad University; and Introduction to Environment at CEPT University for 100 first year undergraduate students of the Faculty of Architecture.

EDUCATION FOR YOUTH

South Asia Youth Environment Network (SAYEN) Secretariat supported the youth events organised at the Indian Institute of Technology (IIT) Kharagpur, IIT Mumbai, IIT Roorkee and Birla Institute of Technology (BITS) Goa, where guidelines for organising events sustainably were shared with the institutes. CEE continues to receive interns and in 2016-17, the SAYEN Secretariat facilitated the placement of 120 interns and volunteers in various offices of CEE, in different thematic areas and with the ongoing projects. SAYEN and CEE celebrated International Youth Day, August 2016 by conducting simultaneous on-ground events in major cities across the country on the occasion.

CEE was the Knowledge Partner for CMC Vatavaran 7th travelling edition. CEE and SAYEN organised a hands-on workshop on cashless transactions as part of Digital Payment Campaigns held on National Youth Day, January 2017. CEE participated in Young Reporters for Environment National Operators Meet, February 2017 at Portugal. As part of YRE Litter Less Campaign, orientation and training of teachers were conducted.

For the first edition of the India Environment Festival, CEE co-organised a panel discussion on “Pirana – Whose Responsibility?” A programme titled “Nature Conservation Education Programme (NCEP) for Rural Tribal Youth” was organised by CEE Karnataka, in collaboration with NMNH (National Museum of Natural History) and the state Forest Department March 16-17, 2017.

EXPERIENCING NATURE

Sundarvan received the Rufford Small Grant from Rufford Foundation, UK, to carry out snake awareness programmes for government

schools in Ahmedabad. Sundarvan received two African Slender-snouted crocodiles from Madras Crocodile Bank Trust (MCBT), Chennai. In addition to various activities conducted by the nature park, this year, Sundarvan introduced an annual membership programme for schools – ‘Naturalists of Sundarvan’. Sundarvan had 82,514 visitors during the year.

Nature camps ranging from the forest camps at Sambalpani and Bakore to the cold desert in Ladakh and the hot sandy desert of Rajasthan, from marine camps at Beyt Dwarka to mountain trekking and adventure camps at Mt. Abu and the Himalaya were organised during the year. In all, more than 4000 people participated in these nature camps, which helped to ignite in them an appreciation and love for nature.

CEE Delhi, CEE North and CEE North East organised five batches each of Nature Camps during 2016-17 under the National Nature Camping Programme (NNCP) of the Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India.

CEE Karnataka, in collaboration with the Forest Department of the state, conducted nature camps for rural school children. CEE Central implemented the educational project ‘Awareness and Education about Birds in Pune City’, a project taken up by the Pune Municipal Corporation and Indradhanushya Centre for Citizenship and Environment Education.

COMMUNICATING ENVIRONMENT THROUGH MEDIA

CEE-ENVIS Centre on Environmental Education and Sustainable Development website has been restructured according to the ENVIS website template provided by the Ministry with a number of informative

databases on EE & ESD. The Secretariat received more than 1600 queries pertaining to various topics and themes like environmental courses, climate change, biodiversity, natural phenomena and others. The Centre reached out to about 50 schools in Ahmedabad to generate awareness about ESD in general and ENVIS activities in particular. The publication, *Ideas for a Swachh School* was brought out by the ENVIS Centre as an initiative to promote the national campaign, 'Swachh Bharat: Swachh Vidyalaya (SBSV)' of the Government of India.

EE THROUGH INTERPRETATION

During the year, CEE has undertaken a number of interpretation projects which include the Interpretation Centre at Bir Talab Zoo, Bathinda, Punjab; Museum-cum-Interpretation Centre at Jabalpur; Bhagyanagar Nandanavanam Park; Interpretation Centre at Narpally; Signages at Pushpagiri Wildlife Sanctuary; Interpretation Centres at Amrithi Zoological Park, Vellore District and Zero Point, Kanyakumari District. Some of the above have been completed while others are in progress.

KNOWLEDGE MANAGEMENT FOR SUSTAINABILITY

CEE, with the support of and in partnership with the National Centre for Sustainable Coastal Management (NCSCM), facilitated field studies in the coastal areas of Karnataka, Gujarat and Andhra Pradesh as part of the research study on "Assessment of social dependency and governance aspects in Critically Vulnerable Coastal Areas (CVCAs)".

CEE partnered with the Soka Gakkai International to bring to India the famous exhibition 'Seeds of Hope – the Power of One'. CEE associated with SGI to measure the impact

of the exhibition among school going children. The exhibition was showcased in three Indian cities – Hyderabad, New Delhi and Kolkata.

CMU team compiled information from 186 publications brought out by CEE as part of the Environmental Orientation to School Education project for the Bharatavani Project being facilitated by the Central Institute of Indian Languages, Mysuru. The project theme for this year was Environmental Sciences.

INDUSTRY INITIATIVES

CEE Climate Change group conducted a two months in-depth Certificate Course in Climate Change for 22 Science Communicators of the Science Express Climate Action Special. CEE trained the new batch of Science Communicators for Vikram A. Sarabhai Community Science Centre. CEE participated in the fourth Dialogues on Action for Climate Empowerment held in Bonn, Germany in 2016. At COP 22 in Morocco, CEE organised and participated in side events at the Indian Pavilion on low carbon development, climate change education and sustainable lifestyles and equity. CEE and the Indian Youth Climate Network, with support from Heinrich Boell Stiftung, organised a three day event for the local COY 12 in November 2016 in Ahmedabad for the South Asian participants.

CEE conducted three workshops on the perceptions of different communication narratives on the topic of climate change with university students in Ahmedabad. It was the first of its kind seminar and study in India. CEE prepared a background paper for the 2016 Global Education Monitoring report, 'Education for People and Planet: Creating Sustainable Futures for All'.

IPP group at CEE was Technical Advisory to the National Green Tribunal (NGT), CETP of

Pandesara, South Gujarat Textile Producers Association (SGTPA), Green Environment Services Co-operative Society Limited (GESCSL) and Policy Advisory to enforcing agencies like GPCB, GCPC, LDCE (BREF Document for textile sector) and NGT. Research and Development (R&D) services were provided to waste utilisation centres with GESCSL and SGTPA; and for pre-processing facility, caustic recovery, and product recovery from waste with LDCE.

IPP group conducted capacity building programmes based on Industrial Waste Water Treatment, Air Pollution Control, Hazardous Waste Management and Cleaner Production for more than 600 industries, during April 2016 to March 2017.

SUSTAINABLE RURAL DEVELOPMENT

CEE's Jasdan Field Office works closely with 55 active self-help groups (SHGs) who have been strengthened and capacity built through a variety of programmes. The women SHG members developed around 52 different products worth Rs. 40 lakh and participated in eight fairs during the year. About 130 farmers joined the certification agency, who purchased the farm produce from them during this period. Gramshilpi Jaldip Thakar, has been awarded with "Mahadev Desai Gramseva Award" by Gujarat Vidyapith, Amedabad, for his commitment to the people of his village. During the year, Gramshilpis supported more than 200 children from migratory families by running residential facilities and providing better education.

As part of Jalsetu - Empowering Women Elected Representatives for Water Governance and Climate Change programme, a range of programmes were conducted with women SHG leaders, PRI members and Elected

Women Representatives. Between January and March 2017, 10 more project villages were added to the project area. The project Prakruti Shala – Schools for Sustainability was initiated in September 2016 in five schools in Sanand taluka of Ahmedabad District. As part of the project, a 'Prakruti Shala Resource Corner' is being developed in each school.

The Humanitarian Engineering Design Summit India 2016 was planned and implemented in partnership with CEE where CEE facilitated the learning experience for 47 students and 11 facilitators from Engineers Without Borders (EWB), Australia at Halvad and Jasdan field offices of CEE. CEE Tamil Nadu has facilitated the capacity building programme on EMF for the 182 Project Officials and 1294 Field Functionaries of TNEPRP during 2017. The mode of training included classroom sessions, group work and field visits.

SUSTAINABLE URBAN DEVELOPMENT

In 2016, under the UNESCO Chair, the 'Streets for People' course was offered to undergraduate and postgraduate students studying architecture, planning, management and design. CEE is involved in guiding the development of communication approaches, assisting in the preparation of training manuals and developing training modules for conducting community based resilience plans. CEE is actively involved in the junction design and traffic control for HL Commerce Six Roads and Dilli Darwaja in Ahmedabad. Currently the trial runs for these two junctions are being planned to be conducted by CEE in collaboration with Traffic Cell and other stakeholders.

CEE brought out the Indian Edition of the State of the World (SOW) Report, 2016: "Can a City

be Sustainable?" Shri Kartikeya V. Sarabhai, Director, CEE; Ms. Madhavi Joshi and Ms. Sanskriti Menon, Programme Directors, CEE, have contributed a case on Ahmedabad and Pune in the SOW 2016. As part of introducing the book to various audiences, a series of four panel discussions was conducted in Ahmedabad, Bhopal, Patna and Chennai.

CEE, in partnership with Mahila Housing Sewa Trust (MHT), has designed and conducted a cultural trail at Dhal ni Pol, emphasising the cultural heritage of the old city of Ahmedabad. CEE designed and organised a three day National Conference on the theme 'Smart and Sustainable Cities' for the Bal Bhavan students. About 118 students and 29 teachers from 26 Bal Bhavan centres from different states participated in the conference.

Pune Municipal Corporation (PMC) BRTS Promotion and Outreach Programme, Public consultations for the preparation of the draft Pune Cycle Plan, Workshop for Street Vendors at Yashada, Pune; Baseline survey of Kolkata, Durgapur and Siliguri to help map key facts about the transport sector and governance at the city level as part of Study on Transport Governance Initiative in West Bengal and walkability study of two roads of Guwahati as part of Guwahati Urban Transport Project (GUTPro) were the Sustainable Urban Development Activities carried out by CEE during the year.

WATER AND SANITATION

CEE was designated as the nodal agency by National Mission for Clean Ganga (NMCG) to conduct Ganga Swachhata Pakhwada campaign along the Ganga river, covering prime cities and towns. The awareness activities of the Pakhwada were conducted in

17 cities and towns along the river, in five Ganga basin states - Uttarakhand, UP, Bihar, Jharkhand and West Bengal. Also, CEE has been invited to take up activities at the Ghat level along with the formation Clean Ganga Clubs in schools and colleges as part of Clean Ganga Programme at Varanasi

CEE Northeast, CEE Jaipur and CEE Karnataka carried out various activities during the year as part of WATSAN Programme. CEE team in Jaipur was invited to share its experience of whole school approach and Water, Sanitation and Hygiene (WASH) education programmes at a state level workshop in Jaipur, organised by UNICEF and Education department, Government of Rajasthan.

Swacha Shale Programme initiated in 2015 by CEE Karnataka, has been extended to 7000 schools during 2016-17, and is linked to the Mid-day Meal scheme of the Karnataka government. Global Hand Washing Day conducted by CEE Karnataka, in collaboration with the Department of Public Instruction and UNICEF, covered 36,25,379 students.

CEE Himalaya took part in a civil society consultation organised by WaterAid, in collaboration with the UP WASH Forum, to comment on the 'Draft National Water Framework Bill' and 'Draft Ground Water Model Bill'. These draft bills have been put up in the public domain by the Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India, for receiving feedback and comments before finalisation.

WASTE MANAGEMENT

CEE CHAMP (Common Healthcare waste Appropriate Management Plant) covers 200 bedded healthcare establishments (HCEs) of

Kalaburagi District and a total of 570 non-bedded HCEs. During the year, CEE has conducted around 250 on-site orientation programmes for medical and paramedical personnel from HCEs and medical colleges in the city and talukas to whom CHAMP provides services.

Initiated in June 2016, Swachhagraha programme was implemented in 650 schools in six cities of Gujarat. Swachhagraha has involved over 12000 children as active Swachhagraha Dal members who reached out to their 3,20,000 peers, their parents and the community through a variety of planned action projects and campaigns during the year. The programme is being scaled up to schools in 14 states in 2017, and will add a youth component for the cities in Gujarat.

A module on Waste Management and Towards Circular Economy was developed by CEE on the request of Development Management Institute, Patna. CEE Central developed the module, organised the resource materials and conducted the course.

BIODIVERSITY CONSERVATION

This year, as part of Phase 3 of the Virasat project, CEE's Jasdan Field Office worked with 15 more villages and 15 People's Biodiversity Registers (PBRs) have been submitted to the Gujarat Biodiversity Board during the year. The project titled "Educating schools and community for sustainable actions for conserving habitat of the Ganges River Dolphin along the Ganga River Basin" is currently in its Phase II. 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 the states.

Funded by the Rajiv Gandhi Science and Technology Commission (RGSTC) of the Government of Maharashtra, the Gene Bank project brings together 20 local, regional, national level NGOs and scientific research institutions. The focus in 2016-17 - the third year of the project - was on the development of resource material and statewide capacity building. With the support of GIZ Marine and Coastal Programme and Goa Forest Department, CEE Goa State Office organised a three day training on 'Understanding Mangroves and their Ecological Role' for the teachers of secondary and higher secondary schools of Tiswadi, Bardez and Bicholim taluka.

CEE Goa State Office conducted a biodiversity assessment on 10 sq km of mining area as part of 'Assessment and Documentation of Biodiversity and Development of Biodiversity Management Plan for Vedanta Mines' in Goa. CEE Goa team also provided assistance in the development of Beach Carrying Capacity in relation to tourism in Goa for the Department of Science, Technology and Environment, Government of Goa.

CEE has been appointed as the Resource Agency to support Biodiversity Management Committees (BMCs) in the preparation of People's Biodiversity Registers (PBRs) by Andhra Pradesh State Biodiversity Board (APBB) and Telengana State Biodiversity Board (TSBB). The documentation has been completed and the PBRs have been submitted to the five respective GPs. CEE Karnataka facilitated the "Koti Vruksha Andolana" (One Crore Tree Campaign) initiated by the state forest department by developing a set of 10 posters for the forest department to motivate people to take up the plantation drive in their neighbourhood. These posters were

distributed to all the government offices and 40,000 government schools.

DISASTER PREPAREDNESS AND REHABILITATION

During the Uttarakhand forest fire in February 2017, CEE Himalaya joined the local forest department in organising collective efforts to douse the spreading fire flames, and make 'fire lines'. A door-to-door programme to raise awareness on the causes of forest fires, fire safety and demonstration of 'fire-line' construction methods to prevent wildfires in the region, was also conducted.

FACILITATING NGOs and COMMUNITY INITIATIVES

The GEF-UNDP SGP (Small Grants Project) Operational Phase 5 (OP-5) programme of 5-year duration, entered its fifth year of operation. A total of 102 projects have been approved on the ground with a synergistic and integrated approach for Biodiversity Conservation, Climate Change - mitigation and adaptation, Land Degradation and Chemical Management, with livelihoods as the cross-cutting area. Out of these 102 approved projects, 53 have been completed and 49 are at different stages of completion.

All the seven NGO-managed projects that were approved in Uttarakhand as part of COMDEKS Programme were completed with the three types of landscapes - spanning from lower, middle to higher mountainous terrains - achieving the expected outcomes.

TRAINING, CAPACITY BUILDING AND NETWORKING

On the occasion of National Youth Day, January 12, 2017, as a part of larger initiative of Digital India initiated by the Prime Minister, CEE offices across India conducted campaigns

on Digital Payment to youth, villagers and general public.

As part of "Gunotsav" programme, CEE and Gujarat Council of Educational Research and Training (GCERT) collaborated to provide in-service teacher training in Social Science. This year CEE trained a total of 120 teachers and DIET lecturers as master trainers, who in turn trained 20,000 teachers in the state through the cascade model.

The Communication for Sustainable Development group at CEE Ahmedabad designed and hosted a Sustainability Exchange Programme (SEP) for 20 students of Central Queensland University (CQU) during January 5-18, 2017. This programme is designed to provide the participants with an exposure to the social, environmental and cultural diversity of India in their respective fields with a view to understand sustainability. The Wetskills India 2017 programme focused on finding creative solutions for water challenges by mixed teams of students and young professionals from Netherlands and India.

As part of the ESD ExpertNet, a mentoring programme is being developed for training and capacity building of in-service professionals interested in ESD and SDGs; this will be offered in a virtual and face to face format from the coming year.

CEE & the UN

CEE participated in the 22nd Conference of Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC), held in Marrakech, Morocco, during November 7-18, 2016. CEE organised the opening side event at the India Pavilion with the theme of the first session being 'Sustainable Lifestyles and Climate Justice'.

CEE participated in the 13th Conference of Parties (COP) of the United Nations Convention on Biological Diversity (UNCBD) held in December 2016 at Cancun, Mexico. At the conference, CEE organised a main side-event on Hand Print: Positive Action for Sustainability. CEE also participated in the Communication Education and Public Awareness (CEPA) fair at the COP where CEE showcased its work in the field of biodiversity education through a poster and publication display at the fair. CEE also organised two side events at the CEPA fair.

CEE organised the International Conference on Education for Sustainable Development for transforming education for Children and Youth, in partnership with Foundation for Environmental Education (FEE), during September 16-18, 2016, at the CEE campus. New initiatives, Action against Violence: A Gandhian Pedagogy, Partnerships for Global Citizenship for Sustainability (GCS) and Mainstreaming ESD in the formal education system were launched during the conference.

The 2016 Global Education Monitoring Report (GEM Report), *Education for people and planet*, was launched in Delhi on September 15, 2016. The India launch of the GEM Report was held at CEE Ahmedabad on September 16, 2016. At the national level, CEE provided inputs for NITI Aayog's (National Institution for Transforming India) 15 Year Vision Document, 7 Year Strategy and 3 Year Action Plan for the environment sector in the country. Inputs were also provided to the MoEF&CC for the Sustainable Sand Mining Management Guidelines. CEE supports the Ministry in developing the standards for the Eco mark - an Eco-labelling scheme - being developed by the Ministry for easy identification of environmental friendly products.

MATERIAL DEVELOPMENT AND PUBLICATIONS

Under the 'Rebuilding Faith' programme, several publications were brought out by CEE Himalaya during the year. CEE ENVIS Centre brought out a booklet '*Ideas for a Swachh School*' as an initiative to promote the national campaign, 'Swachh Bharat: Swachh Vidyalaya (SBSV)' of the Government of India. A set of two booklets in Hindi on 'Sustainability and Water' and 'Sustainability and Biodiversity' was developed and distributed to 300 schools by CEE Rajasthan as part of the NGC programme in the state.

INSTITUTIONAL DEVELOPMENT AND SUPPORT

Two meetings of CEE Management Committee (CMC) and several meetings of the Programme Directors' Forum (PDF) were held during the reporting period to discuss institutional matters. A national recruitment process was carried out for recruiting programme and administrative staff advertised for various levels. Twelve issues of the monthly newsletter *Ceenario* were published and circulated. These featured the programmes and initiatives undertaken by various CEE offices across the country.

A film on CEE covering the Centre's journey over 30 years was made and showcased at the International Union for Conservation of Nature (IUCN) World Conservation Congress 2016 in Honolulu, Hawaii. During the event, the Director of CEE received the 2016 International Brandwein Medal for services rendered for conservation. The newly developed CEE-South campus located in Yelahanka was inaugurated in November 2016.

EVENTS

CEE Himalaya, with support from Give2Asia and JSW Foundation, RCE Srinagar, Mountain Partnership, and Indian Himalaya Climate Adaptation Programme, conducted various events across the Indian Himalayan Region February 2, 2017 to celebrate World Wetlands Day and National Science Day on February 28, 2017. CEE North observed World Heritage Day on April 18, 2016 as an opportunity to relate this to the environmental issues that plague us. The theme for the event was 'Environment as Legacy: Protecting our Green Heritage'.

CEE offices across India celebrated World Environment Day on June 5 by hosting various events, competitions, awareness programmes workshops and camps. Activities were conducted aligning with the theme for 2016, "Go Wild for Life - Zero Tolerance for Illegal Wildlife Trade".

On the occasion of the International Day for the Preservation of the Ozone Layer, series of events was organised by CEE North in NGC schools of Lucknow, Bareilly, Pilibhit, Allahabad and Bahraich. The theme for this year's Ozone Day, 'Ozone and Climate - Restored by a world united', was discussed at the events. CEE Jaipur, along with the Eco-club members of Sirohi, commemorated the Wildlife Week, with activities including a nature trail, drawing competition, origami and environmental games, organised around the theme of biodiversity.

FACILITATION, NETWORKING AND PARTICIPATION

The Information and Facilitation Centre (IFC) offered orientation programmes to a varied group of visitors to CEE. A total of 3200 students from 25 schools, 10 University/

Architecture students and trainees, four groups supported by NGOs, visited CEE. Safe Festival Campaigns were organised during Diwali, Holi, Makar Sankranti festivals as also Save our Birds and Go Green Ganesh Campaigns. Summer vacation programme for children was conducted by the IFC and CEE Jaipur.

Several staffs from the Centre attended national and international conferences, and were resource persons at various workshops and seminars. Mr. Sujeetkumar Dongre, Programme Co-ordinator has been nominated as Member, Wildlife Board, Government of Goa. All India Radio, Guwahati, broadcasted an interview of Dr. Simanta Kalita, senior Programme Co-ordinator on March 16, 2017 on 'Environmental Studies and Employment Opportunities' under the 'Yuva Vani' programme. Ms. Preeti R. Kanaujia, Programme Director has been nominated as a member of the executive and steering committee under the State Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Uttar Pradesh. Ms. Reema Banerjee, Programme Coordinator, Waste Management, was invited for the Co-lab workshop conducted by the Department of Biochemical Engineering of University College London (UCL) for sharing her experience on the gap between the technology and implementation of bioremediation projects in various sites in India.

Education for Children



1.1 National Green Corps (NGC)

National Green Corps (NGC) is a programme launched by the Ministry of Environment, Forest and Climate Change in 2001-2002, to create awareness among school children across the country on issues related to sustainable development, keeping environment as the focus. Working through a network on eco-clubs, NGC motivates students to be environmentally literate and responsible citizens.

CEE's activities under the NGC programme include:

- Coordination with respective State Nodal Agency (SNA)
- Training of Master Trainers
- Monitoring of NGC schools
- Development of resource materials
- Conducting outreach activities

1.1.1 CEE North

Uttar Pradesh

Under the NGC programme in Uttar Pradesh, CEE North worked in close coordination with State Nodal Agency (SNA) - Directorate of Environment (DoE), Government of Uttar Pradesh. Regular meetings and discussions were held with the nodal agency regarding documentation, follow up with schools and reporting. CEE North provided technical support and inputs for the implementation of the programme. With the revival of the NGC programme in the state, over 6000 schools are being covered under the eco-club programme.

Coordination and Outreach Events: CEE team had regular meetings with the Nodal Officer and other officials of SNA to review the progress and plan the activities. The status of

the programme and follow up strategy was discussed with the SNA and month wise school eco-club activities report were compiled by CEE North.

CEE organised a series of environment related events with NGC schools in the state during the year 2016-17. Some of the activities are given below:

In April, CEE, in association with the Directorate of Environment, Government of UP, and the Regional Science Centre (RSC), Lucknow, observed World Heritage Day on the 18th with the eco-club schools of Lucknow. The theme for the event was 'Environment as Legacy: Protecting our Green Heritage'. Over 200 students and teachers from 28 schools participated in the event. Inter-school competitions on environment reporting (Feel it, Click it, Report it) and teachers' workshop with an interactive theatre workshop for both, facilitated by the CEE team, on the said theme was also conducted.

During February and March 2016, CEE North, in collaboration with UP Forest Department, UP State Biodiversity Board as RCE (Regional Centres of Expertise of the UN University) Lucknow network partner and University of Lucknow, joined hands to run a state level Save Sparrow Campaign in the districts of Uttar Pradesh. This campaign was an attempt not only to conserve the *Guraiya* (sparrow) which is fast disappearing from the urban areas but also to motivate students to participate and contribute in the protection of the sparrows and in be a "Paryavaran Mitra" in the true sense. The campaign was initiated at the state level with NGC master trainers of different districts who worked closely with Forest and Education departments to run the campaign. The CEE team directly worked with schools involved in NGC and other

programmes of CEE, such as Children's Forest Programme, Ganges River Dolphin Conservation and Paryavaran Mitra. Looking at the efforts put in by CEE North, Shri Akhilesh Yadav, Hon'ble Chief Minister of the state, felicitated CEE on the occasion of World Sparrow Day for its work on sparrow conservation.

In May, CEE North conducted the Green Wave campaign in various districts of Uttar Pradesh on the occasion of International Day for Biodiversity – May 22, 2016, with the support of NGC Master Trainers. Over 25 NGC schools participated in the campaign. A biodiversity week was also celebrated with eco club school students.

In June, on the occasion of World Environment Day, CEE North, in association with Regional Science City, organised an event for students and other visitors. During the event, CEE team along with volunteers, organised green games and creative corners which included clay modelling, puppet making, snakes and ladder game and green tattoo making. Students registered for quiz and creative expression competitions. Senior officers from SNA addressed children on the occasion. The event, which ended with prize distribution, had more than 300 students, teachers and parents participating.

School level events were organised for NGC schools of Lucknow, Bareilly, Pilibhit, Allahabad and Bahraich on September 16 as part of Ozone Day celebrations, with support from the Environment and Forest Department, UP Government.

In October, the eco club schools observed the National Dolphin Day held during the Wildlife Week in different districts.

In November and December, CEE North organised five nature camps for the eco-club schools of Bareilly, Bahraich, Pilibhit, Lakhimpur Kheri and Gonda districts. With the association of the Uttar Pradesh Forest Corporation (UPFC), the State Ecotourism Nodal agency and National Nature Camping Programme of MoEFCC, a three-day and two-night nature camp was organised at the Suhelwa Wildlife Sanctuary. Over 250 students along with teachers attended these camps from six schools.

In March 2016, schools took part in the Ganga Swachhata Pakhwada campaign for clean Ganga in eight districts with events such as rally, competitions, shram daan, pledge campaign and others being conducted.

Training: CEE North organised teacher training workshops at various locations covering six districts for NGC school teachers, with the support from the local NGO partner and active schools. Workshops were conducted at Lucknow, Jalaun, Gorakhpur, Bahraich, Gonda and Bareilly where over 300 teachers participated. These workshops were supported under the Earthian-Paryavaran Mitra programme, and focused on the themes of water and sustainability, and biodiversity conservation. As part of Dolphin Conservation Education programme, review workshops were organised in Uttar Pradesh by CEE in association with education and forest departments. Workshops were also held for rural schools located near rivers Ganga and Ghaghara, in Varanasi, Faizabad, Bahraich, Meerut, Bijnore, Allahabad, Gonda and Kanpur, covering over 300 teachers.

Educational Material: A set of biodiversity and tree posters were disseminated among NGC schools. Apart from this Earthian-Paryavaran Mitra material was also disseminated. These

materials were developed with support from local agencies.

Monitoring: CEE team provided support to the SNA in finding out the status of funds with eco-club schools. A whatsapp group of master trainers and a facebook page were used to help eco-club schools and master trainers in reporting their activities. The school database for the NGC schools in the State was documented by CEE. The overall activity reports of eco-clubs were also developed by CEE team in association with the SNA.

Bihar

Coordination and Outreach Events: A total of 8600 NGC 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 for NGC Programme is providing its full support to this endeavor.

CEE North, as a Resource Agency for the NGC programme in the state, is closely working with Master Trainers, teachers in-charge and schools in different districts. The following programmes were organised in the state during the year:

In October 2016, NGC schools from various locations, under the Ganges River Dolphin initiative, celebrated Wildlife Week with Dolphin Day being observed on October 5. School level awareness activities were organised at Supaul, Begusarai, Bhagalpur, West Champaran, Gopalganj, Patna, East Champaran and Muzafarpur in Bihar. Activities included painting and essay competitions. In some of the clusters, awareness activities and competitions including essay writing, painting and quiz, were also conducted.

In March 2017, schools at Patna and Bhagalpur took part in the Ganga Swachhata Pakhwada campaign for clean Ganga in which events such as rally, competitions, shram daan and pledge campaign were conducted.

Trainings: During August 2015, two teacher training programmes were organised at Sasaram and Hajipur under the Earthian-Paryavaran Mitra programme for the eco-club teachers in-charge from NGC schools. Around 140 teachers from 120 schools attended these programmes, which focused on water and sustainability, and the initiatives which schools and eco-club students can take up for conservation efforts. Paryavaran Mitra Teachers Handbook was disseminated among the NGC schools along with the Earthian booklet on water and sustainability in Hindi. Biodiversity campaign posters were also sent to the schools. Apart from this, a teacher review workshop was conducted with support from the Dolphin initiative, in eight locations - Muzzafarpur, Begusarai, Bhagalpur, Supaul, West Champaran, East Champaran, Gopalganj and Bagaha.

1.1.2 CEE Central

Chhattisgarh

CEE is the resource agency and Chhattisgarh Environment Conservation Board (CECB) is the nodal agency for the National Green Corps programme running in 27 districts of Chhattisgarh state. Each of the 27 districts have 250 eco-clubs, four master trainers and one district coordinator to coordinate the NGC activities in their respective districts.

CEE as the resource agency has been providing technical support, guidance and relevant resource materials on different occasions to CECB and facilitating events throughout the year. These included one-day orientation

programmes in schools on Earth Day, coordinating a cycle rally on Earth Day, Wildlife Week, Low carbon lifestyle and National Youth Day on Digital India, World Water Day, training of teachers in-charge and others.

Trainings: CEE Chhattisgarh organised a one-day orientation programme on “low carbon lifestyle” at the Government Higher Secondary School, Ramnagar, Bhilai, as part of the NGC programme for students on December 21, 2016. About 48 enthusiastic students participated in this programme which included a brief introduction to low carbon lifestyles and focused on how to increase hand print towards sustainable development.

One-day teacher training workshops were organised in September 2016 by CEE Chhattisgarh in three blocks of two districts – Raipur and Durg. These workshops aimed at capacity building of eco-club teachers in-charge and to strengthen their eco club activities. A session on sustainable development and on opportunities to participate in projects like Wipro Earthian and Paryavaran Mitra Puruskar 2016 was also held during these trainings.



Students from Jaishree Dadaji High school, Dist Jalgaon do a rain water gauge measurement exercise as part of the school water audit

Outreach Activities: CEE Chhattisgarh celebrated Earth Day on April 21, 2016 at Government Minto Higher Secondary School, Doomertarai in Raipur. CECB, along with Sports & Youth Welfare Department of the state, held a cycle rally to celebrate the day. CEE team along with students from the Government Minto HSS also took part in the rally which was led by Chief Minister Dr. Raman Singh and had more than 10,000 people participating.

CEE Chhattisgarh organised a day long programme in Government Higher Secondary School Kumhari, Durg on October 7, as part of Wildlife Week celebrations.

A one-day orientation programme was organised on National Youth Day 2017, on this year's theme “Youth for Digital India”, at Government Higher Secondary School, Sarona, Raipur, for eco-club members and other students.

1.1.3 CEE West

Rajasthan

The National Green Corps programme is being implemented in 33 districts of the state, with 250 eco-clubs in each district. The State Nodal Agency (SNA) is the Rajasthan State Bharat Scouts and Guides (RSBSG) and CEE is the State Resource Agency providing technical guidance, training, monitoring visits, preparing resource materials and providing facilitation support for various events throughout the year.

Coordination with State Nodal Agency: CEE conducted several meetings with the SNA during the year for planning and strengthening the activities of the eco-clubs in the state.

Training: For capacity building of eco-club in-charges, CEE Jaipur organised ten district level workshops. The sessions focused on

facilitating teachers on education for sustainable development, project based learning and carrying out action projects. These workshops aimed to support teachers to link their eco-club activities with their classroom transactions, and were supported by CEE's Paryavaran Mitra-Earthian programme. National opportunities like 'Paryavaran Mitra Puraskar 2016' and 'Earthian 2016 Award' were also discussed during these training programmes. Workshops were organised at Barmer, Banswara, Churu, Nagaur, Jhalawar, Jhunjhunu, Sawai Madhopur, Sikar, Sirohi and Sri Ganganagar where 326 teachers participated.

Resource Material Development: A set of two booklets on 'Sustainability and Water' and 'Sustainability and Biodiversity' in Hindi, a brochure on Earthian 2016 and a poster on Paryavaran Mitra Puraskar 2016, and two sets of posters on personal hygiene and handwashing were developed and disseminated to schools during the year.

Outreach Activities: In May, CEE Jaipur organised a week long summer vacation workshop at Jaipur in which 40 eco-club members participated. The workshop was designed around the theme of waste management, water and sanitation, and learning science with fun. This summer workshop aimed to expose children to new activities and experiences and provide them a chance to explore and try new things, along with development of skills like sharing, team work and the desire to participate. Hands on activities such as making a color spinning wheel by using primary colors, separating colors by chromatography, preparing natural colors from flowers and leaves, preparing handmade paper by recycling used paper,

origami, thread painting, and making homemade soap were carried out while the importance of hand washing and personal hygiene was emphasised. Joy of Science activities like constructing a balloon powered car and balancing a pencil on its tip were carried out to make students understand abstract scientific principles. The workshop culminated with an exposure visit to the Regional Science Museum, Jaipur and Kagzi paper making factory, Sanganer, Jaipur.

Responding to the UNEP call on its theme 'Zero tolerance for illegal wildlife trade' for World Environment Day 2016, CEE Jaipur organised a two day event at Jaipur. The event began with a series of thematic competitions for children and youth on June 4 like origami, mask making, poster making, best out of waste and pot painting, where children were encouraged to depict their thoughts on wildlife and associated issues. They were made aware of the interconnection of forest and wildlife and the need for conserving and restoring the world's forests. A demonstration of paper recycling was carried out as an action which children can adopt to save forests and wildlife. These activities were undertaken in collaboration with Rajasthan State Bharat Scouts and Guides. The state Environment Department of Rajasthan and Pollution Control Board announced a 'Run for Environment' on June 5 to spread awareness among Jaipurites. The run was flagged off by Shri Ramcharan Bohra, Member of Parliament and Mr. Nirmal Nahata, Mayor, Jaipur Municipal Corporation. The participants of the competitions also took part in the 'Run for Environment' with great enthusiasm. CEE Team's face painting activity was a huge hit among the participants and even officials. A visit to Nahargarh Biological Park was also organised for the participants with the support

of the state's Forest Department,. The Park was inaugurated by Ms. Vasundhara Raje Scindia, Honourable Chief Minister, Rajasthan and Mr. Rajkumar Rinwa, Minister of Environment and Forests, Rajasthan. Children enjoyed the visit to the park and were excited to see animals like Himalayan bear, Sloth bear, Wild boar, Panther, Hyena, Hog Deer, Civet, Porcupine and others in the almost natural habitat. Around 600 students participated in the event.

In July, CEE Jaipur organised a Water, Sanitation and Hygiene (WASH) education programme for the schools of Jaipur, with a focus on the importance and internalisation of personal hygiene and hand washing practices among students. The right process of hand washing was demonstrated and personal hygiene kits were distributed to the students. A portable hand wash unit was developed for this purpose and was utilised as part of the demonstration session followed by discussion with the school management on hand wash facilities. To strengthen the effort and for effective delivery of the message, a set of posters focusing on personal hygiene and the five steps of hand washing was developed and distributed to the schools.

Acknowledging the role of youth in the movement towards sustainability around the world, CEE Jaipur organised a programme on International Youth Day on August 12, 2016, with the eco-club of Neerja Modi School, Jaipur. Activities organised during the programme were in line with this year's theme: 'The Road to 2030: Eradicating Poverty and Achieving Sustainable Consumption and Production'. The event included (a) an essay writing competition on the topic; (b) a photography session to teach them the nuances of photography - both mobile phones and cameras, followed by photographic entries on

the theme of Swachh Bharat; and (c) a pledge by participants to adopt a sustainable lifestyle through their handprints. About 70 students from the school participated in the event.

As part of Swachhata Pakhwada from August 1-15, CEE team involved eco-club members in the several activities. Eco-clubs of Sikar district of Rajasthan organised a cleanliness drive at public places like Maru Park and Bada talab, debates and expert talk, awareness rally at different locations, street shows, poem and slogan writing, oath ceremony, and plantation drive. Eco-club members also organised awareness activities in the local fair 'Teejmela' to extend the message to the community. More than 4300 eco-club members participated in these activities.

In September, eco-club members from Rajasthan participated in the 'Safai Ke Sitare' campaign, an initiative to acknowledge the heroes - in the form of cleaning staff - who help keep our environment clean. As part of the campaign, students interacted with the cleaning staff of their school, prepared a creative write-up to highlight their role, and clicked a selfie with them. Around 20 students from four districts of Rajasthan participated in the campaign.

In October, CEE Jaipur, along with the eco-club members of Government Sr. Sec. School, Sirohi, commemorated Wildlife Week, with activities such as nature trail, drawing competition, origami and environmental games. Around 35 members participated in these activities, which were organised around the theme of biodiversity.

Responding to the national call of Swachh Bharat Mission, eco-clubs of Rajasthan participated in 'Gandagi Se Azadi' campaign in January 2017, where the schools carried out

action projects on issues related to cleanliness; the project of Barmer eco-club was shortlisted as one of the best entries at the national level.

In February, eco-club members from Rajasthan participated in 'Swachhagraha ke Reporters' campaign, an initiative to understand who is responsible for maintaining cleanliness. Under the campaign, students interacted with the many stakeholders of their school and community and analysed their findings as reporters. They also prepared a creative video as part of the campaign. Government Sec. School, Falwadi, Sirohi, was one of the 10 best entries shortlisted at the national level.

Monitoring: CEE Jaipur organised visits to the eco-clubs of Alwar, Barmer, Dausa, Dungarpur, Jaipur and Sirohi to facilitate them in implementing environment education activities. Ideas for documentation such as eco-club register, photos, media coverage and reports, for showcasing at various platforms like events, print and electronic media were shared. Interactive sessions with eco-club members were also held during the visit. A block level whatsapp group was also initiated to support the eco-club schools in their activities.

Gujarat

Coordination with SNA: Meetings were held with the SNA for conducting eco-club activities round the year.

Outreach Activities: World Environment Day celebration and Science Express painting competition were held for schools as part of NGC outreach activities.

1.1.4 CEE North East

Coordination with SNA: Assam Science Technology and Education Council (ASTEC), the state NGC nodal agency, with support

from CEE North East as the resource agency, selected nodal NGOs for districts in November 2016. These 27 NGOs will coordinate programmes and monitor activities in the respective districts. In Assam, 5407 school eco-clubs are part of the NGC network.

Training: A programme for orienting the district coordinators was held by ASTEC on December 14, 2016, in which CEE North East played an active role in training the 27 nodal NGOs from the districts in implementing the NGC programme activities.

Outreach Activities: In Assam, a series of five camps were held from February 4-14, 2017, at Orang National Park. Students from five NGC schools took part in these camps.

Monitoring: CEE North East monitored two schools in Nagaon District of Assam along with the MoEF&CC Regional Office. The team also provided support to the MoEF&CC office for monitoring in Nagaland, Mizoram and Tripura.

1.2 Paryavaran Mitra Programme

Paryavaran Mitra programme is an initiative of CEE, in partnership with the Ministry of Environment, Forest and Climate Change, Government of India. It is a nationwide initiative to create a network of *young leaders* from schools across the country, who have the awareness, knowledge, commitment, and potential *to meet the challenges of sustainable development in their own spheres of influence*. The Paryavaran Mitra programme primarily seeks to reach students from *class 6 – 8* (age group 11-15).

The programme, initiated in 2008-09 as a campaign on Climate Change Education, has developed as the flagship school programme that brings together CEE's experience of 33

years in Environmental Education (EE) and Education for Sustainable Development (ESD). Paryavaran Mitra programme involves students in problem solving by engaging them in action projects. The action projects taken up by students may or may not lead to immediate or significant improvement, but would definitely lay the foundation for sustained efforts through learning outcomes in the form of knowledge, disposition, competencies and behaviour. In Project Based Learning (PBL), action project/s is an extensive task undertaken by a group of students to apply or illustrate classroom learning. This extends the boundary of education from information to experience.

Resource materials for the programme are provided to the schools to carry out action projects focusing on local environmental issues in the five themes of the programme, viz; Water & Sanitation, Biodiversity and Greening, Energy, Waste Management and Culture & Heritage.

1.2.1 Paryavaran Mitra Puraskar 2016

Exemplary work done by schools is recognised through the Paryavaran Mitra Puraskar (Paryavaran Mitra Awards). The annual award process was the major activity carried out in 2016-17 and saw entries in the school, teacher and student categories from all over India. The process of evaluating the entries involved creating new criteria and benchmarks for the awards which enabled taking the programme objectives from awareness to Handprint action. This year, five exemplars were recognised at the national level through a jury process.

1.2.2 Resource Material:

The Paryavaran Mitra Teacher's Handbook is now available in English, Hindi, Urdu,

Gujarati and Telugu as a soft copy on the resources tab of the Paryavaran Mitra website.

1.2.3 Communication Media Website:

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

1.2.4 Newsletter:

The monthly newsletter covers several handprint actions from schools across the country and gives information on various new engagements as well as upcoming events. The newsletter is also a medium to provide teachers with ideas for Handprint actions to work with students in schools.

More information on the programme can be accessed at: www.paryavaranmitra.in

1.2.5 Paryavaran Mitra in the Northern Region

CEE North implemented the Paryavaran Mitra programme in Uttar Pradesh and Bihar where a series of workshops and events were organised.

Uttar Pradesh

Through a strategy of one to one meetings with schools in different locations, CEE North reached out to more schools. In collaboration with partner NGOs, educational institutions, and with the help of other school programmes networks, CEE North conducted sessions introducing the Paryavaran Mitra programme.

Around 300 schools from 10 new districts of Uttar Pradesh were covered through various programmes under Paryavaran Mitra.

The Paryavaran Mitra Puraskar announced at the end of every year saw tremendous response from the participants in all the three categories - best student, best teacher and best school. Over 200 reports were received, out of which 17 reports could further make it to the national level assessment.

A state level 'Paryavaran Mitra Schools Event and Meet' was organised on World Heritage Day, on April 18, 2016, at the Regional Science City (RSC), Lucknow, in which around 150 children participated. The objective was to celebrate local heritage all over the world, and to raise public awareness about the diversity of cultural and natural heritage and the efforts that are required to protect and conserve it. Inter school competitions and a theatre workshop on the theme of '*Our green legacy: Environment as heritage*' was organised. The event focused on the core message of encouraging schools to become a Paryavaran Mitra citizen. Inter school competitions helped students in exploring, discovering, thinking, acting and sharing environmental problems and concerns.

In collaboration with the State Biodiversity Board and Regional Science City, competitions were also organised from May 17-20, celebrating Biodiversity Week based on the theme of 'Mainstreaming Biodiversity: Sustaining people and their livelihoods' for our Paryavaran Mitra schools.

Bihar

Schools were encouraged to work on any of the three themes of the Paryavaran Mitra programme. Water and Biodiversity was covered under Earthian-Paryavaran Mitra and

Ganges River Dolphin initiative. Hence waste management and culture and heritage were taken by schools under guidance from CEE. The overall experience was documented by schools: 40 Paryavaran Mitra Puraskar reports were submitted by them. These reports were reviewed by a panel at the state level and two were shortlisted for the national level Puraskar process.

Green Wave Campaign

Green wave campaign was observed by schools in the region that are associated with various CEE programmes. From Bahraich, Gonda, Meerut, Varanasi cluster of UP and Bettiah, Begusarai and Supaul cluster of Bihar, dolphin schools took part in the campaign. Over 30 schools of the dolphin cluster and dolphin project villages participated in the Green Wave campaign by planting trees. An event was organised at the NGC school Madhya Vidyalaya of Bettiah, where the Divisional Forest Officer addressed students on the importance of biodiversity in our ecosystems and motivated them to take action for conserving it. Saplings of arjun, neem, guava, mango, banyan and sheesham were planted. In 20 schools of Bareilly District of UP who are working with the Children's Forest Programme, students planted their favourite trees as part of the campaign.

1.2.6 Paryavaran Mitra in Chhattisgarh

In Chhattisgarh, Paryavaran Mitra programme was launched in 2010 with the National Green Corps school network and through local NGO partners. Teacher trainings were held in Raipur, Bilaspur, Surguja, Bastar, Kondagaon, Durg, Rajnandgaon, Mahsamund, Balod and Bemetara districts. Paryavaran Mitra 2016 was launched with Earthian programme and clubbed with

Earthian activities and curriculum linkages. Schools have submitted their action project reports on their activities under the themes of water, waste management, biodiversity, energy and culture and heritage for Paryavaran Mitra Puruskar 2016.

1.2.7 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, 2014 and is available in four languages: English, Hindi, Marathi and Gujarati. About 705 queries from educators and students related to varied programmes were addressed during the year. The toll free number for this service is 1800 3000 0996.

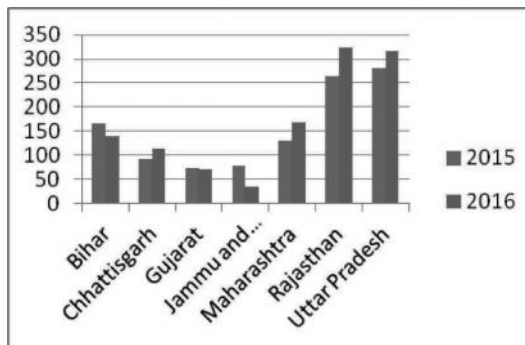
1.3 Earthian – Paryavaran Mitra Programme

‘Earthian’ by Wipro is a nationwide initiative to deepen sustainability education within schools and colleges across the country. Through a chosen theme, the programme aims to engage teams of students and faculties from schools in a set of activities to understand water and biodiversity in their local context and explore sustainability linkages.

Wipro and CEE joined hands in 2013-14 to work together through the Earthian initiative of Wipro and the 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 and biodiversity. This partnership programme was implemented in the states of Uttar Pradesh, Bihar, Rajasthan, Gujarat, Maharashtra, Chhattisgarh and Jammu & Kashmir.

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 schools in the Paryavaran Mitra network in the above mentioned states. It also included training of teachers from selected schools in these states to facilitate projects/activities on water and biodiversity in their schools and submission of entries from the schools.



No of teachers trained under Earthian

This year, the programme was initiated in July. Against a target of 1000 teachers to be trained under the programme, 1169 were covered through the training programmes. A total of 535 activity reports were received against a target of 350 from participating schools. Five school reports were selected for the final Earthian award.

1.3.1 Earthian – Paryavaran Mitra Programme in CEE North

Uttar Pradesh (UP)

The strategy adopted for this programme was to use the existing network of schools in the state which included the schools in UP working with National Green Corps, Children's Forest Programme, Ganges River Dolphin Conservation Education Programme, and involve CEE's partner organisations who have worked with schools in implementing the Paryavaran Mitra programme in various districts of the state. The schools that were part of our Yuva Paryavaran Leader programme agreed to take the lead in organising the Earthian-Paryavaran Mitra workshops this year and with their support, workshops were organised at various locations across UP. To reach out to a wider number of schools, the CEE team identified and directly approached schools to conduct a workshop for students and teachers.

As part of the implementation of the Earthian-Paryavaran Mitra Programme 2016, one-day teachers training workshops were organised by CEE across six districts of Uttar Pradesh during July-August. Around 300 teachers, partner institutions (District Science Clubs, NGOs) and people from government institutions participated in these workshops. The districts were selected with the objective of extending the reach of the programme in places which have not been approached previously.

The workshops were conducted at Lucknow, Jalaun, Gorakhpur, Bahraich, Gonda and Bareilly districts of Uttar Pradesh in collaboration with schools, educational institutions and District Science Clubs. The objective of the workshops was to develop an

understanding among teachers about environmental education and the concept of sustainable development, its curriculum linkage, components of 'Earthian' and Paryavaran Mitra Programme and the role of schools and teachers in participating and implementing these programmes in their respective schools and communities.

Subsequent to the teacher training workshops, follow up visits were undertaken to schools to guide them in implementing the action projects. Project activity related materials consisting of a brochure and flier were sent to around 2000 schools across Uttar Pradesh.

The schools participated in the programme with enthusiasm and their response was tremendous. A total of 230 reports were received from the state. The results were declared in the month of December and the felicitation ceremony was held in February 2017 at Bangalore, where two schools from the state made it to the top 10 schools at the national Level.

Bihar

For the Earthian-Paryavaran Mitra initiative in Bihar, the strategy adopted for the year 2016-17 was to work with CEE's existing network of schools which included Paryavaran Mitra schools, NGC schools and UNICEF's Child Friendly Schools and Systems 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.

During August 2017, two one-day Teacher Training Workshops (TTW) were organised at Sasaram and Hajipur. Around 140 teachers from 120 schools attended these workshops and were briefed about Water and Biodiversity

and what initiatives the schools can take for their conservation. The objective of the workshop was to develop an understanding among teachers about environmental education, its curriculum linkage, components of Earthian-Paryavaran Mitra programme and the role of schools in participating and implementing these programmes in their respective schools and communities.

During September and October 2017, CEE team visited schools in Vaishali to motivate and guide schools to carry out the project activities. Efforts were also taken to strengthen the clubs where these had become dormant. During the visit, the team interacted with the school Principal/Headmaster and eco-club teacher in-charge and they were motivated to take up conservation initiatives in their schools. In some schools they also interacted with club members. Around 30 such schools were visited during this period and these schools were encouraged to submit their activity reports at the earliest.

Project activity related materials consisting of a brochure and flier were sent to around 800 schools and over 140 teachers were trained. In Bihar, over 40 schools submitted their reports.

1.3.2 Earthian – Paryavaran Mitra Programme in CEE Central

Chhattisgarh

From the last few years, CEE Chhattisgarh implemented the programme across the state. In the reporting year, Earthian 2016 was implemented in the school network of the National Green Corps (NGC) programme with the help of the Education Department of Chhattisgarh.

One-day training programmes for teachers were conducted in three locations in the state,

for capacity building and enhancing their understanding of linkages between water, biodiversity and sustainable development and the school curriculum. About 114 teachers participated in this training. Classroom and outdoor activities were conducted and action projects were carried out by students with the help of teachers. Reports on the activities undertaken on the themes of Water and Biodiversity were received from 81 schools.

Maharashtra

The objectives of the Earthian-Paryavaran Mitra Water and Biodiversity programme is to help teachers undertake activities with children for exploring water and biodiversity through audit activities, and drawing linkages between the local and global perspectives through research projects. The 2016 programme in Maharashtra was implemented in the school network of the Environment Service Scheme (ESS) programme of the Maharashtra State Environment Department with CEE, Western Ghats Eco Club Programme and other networks.



Students from Jaishree Dadaji High school, Dist Jalgaon do a rain water gauge measurement exercise as part of the school water audit

Activities

- 160 teachers in eight districts (Pune, Chiplun, Rajapur, Solapur, Nashik, Jalgaon, Nagpur and Aurangabad) were capacity built to increase their understanding of linkages between water, biodiversity and sustainable development in various parts of Maharashtra and to carry out classroom activities and action projects with the students.
- Two schools were amongst the national level awardee schools who were felicitated by Mr. Azim Premji, Chairman, Wipro at Bengaluru. The schools are:
 1. Secondary School Yadavwadi, Hargude, Purandar, Pune, Maharashtra (Theme: Water)
 2. Zilha Parishad School Kondhar (Chincholi) Karmala, Solapur, Maharashtra (Theme: Water)

1.3.3 Earthian – Paryavaran Mitra Programme in Rajasthan

For the implementation of the programme, CEE Jaipur utilised the existing network and partnerships of the Paryavaran Mitra programme. Other potential schools, which were not a part of our existing network, were also identified and directly approached.

During August, one-day teacher training workshops were organised in 10 districts. The objective of workshops was to develop an understanding among teachers on the concept of sustainable development, its curriculum linkage, components of 'Earthian' and Paryavaran Mitra Programme and the role of schools and teachers in participating and implementing these programmes in their respective schools and communities. About 326 teachers participated in these workshops.

Follow-up visits were organised in September and October to schools, to support teachers and students in implementing the action projects. To extend the reach of the programme in the state, a programme brochure was sent to 1900 schools.

An enthusiastic participation was reported by 116 schools under the programme on the theme of 'Biodiversity and Sustainability' and 'Water and Sustainability'. One of the schools from the state was felicitated at the national level in an award ceremony held in Bangalore in February 2017.

1.4 Continuous Engagement Programme (CEP)

The CEP is a two year initiative driven by the objective of enhancing the teaching and learning process, making it more interactive, learner-centric, participatory (such as learning from peer and community) and empowering. The learning outcomes of the programme are expected to provide children with the local to global context related to the ecological and social dimensions of the environment. In order to bring about changes in their own contexts and environment, the programme would empower teachers and learners to take responsible actions.

Currently, 18 schools, which are the Earthian winners from Gujarat, Maharashtra, Uttar Pradesh, Bihar, Gujarat and Delhi, have been engaged with the programme, which is in its second year.

As planned, the programme was offered to classes 6 and 7 in the enrolled schools, which include the 2016 year winners too. For implementation and strengthening of CEP in schools, the following activities were conducted by the CEE team:

-
- School level teachers' orientation workshop
 - Interaction with school management
 - Activities with students
 - Assessment and follow-up

Learnings from 2016

- Teachers learnt about a new teaching and learning process.
- Teachers could understand easy teaching methods to teach complicated subjects.
- This proved to be an effective process in teaching environment education with joy and entertainment.
- This was effective to understand the role of observation in nature and also in subject related problems.
- This method helps in increasing the involvement, observation and thinking ability of the students towards environment.

1.4.1 Continuous Engagement Programme in CEE North

Uttar Pradesh and Bihar

During 2016-17, CEE North implemented the Continuous Engagement Programme (CEP) in collaboration with CEE and Avehi Abacus, a Mumbai based NGO. From over two hundred schools who had participated in the Earthian-Paryavaran Mitra programme 2015, six schools from Uttar Pradesh and two schools from Bihar had made it to the national level award. As part of the award, Wipro, through CEE, has been continuously working with these schools through CEP. This two year programme is aimed at enhancing social and environmental sensitivity among children.

CEE North team visited the CEP schools with the aim of assessing the implementation, effectiveness, understanding and feasibility of the module, both for students and teachers. The schools visited were ML Convent School of Jalaun; Purva Madhyamic Vidyalaya, Itaunja; Purva Madhyamik Vidyalaya, Bibipur; KGBV Mohanlalgunj of Lucknow; and City Montessori School, Lucknow. The team had an interactive discussion followed by a question-answer session with students. During the visit, the CEE team observed that the activities were conducted by the teachers very well, the major objectives of the activities were well understood by the facilitators and also communicated to the students.

The module is part of a series of six modules which are to be introduced in the schools over a period of three years. Module 1, titled 'My World', was designed with the objective of supporting a child in understanding that learning is a continuous process and that we learn from our surroundings – teachers, family, friends, pets, neighbours, nature and others. Module 2, which was recently introduced, conveys that we share a remarkable home, the Earth, with lakhs of other living things - plants and animals - all of which have developed over many crores of years as a result of a never ending process of change. The first year of the programme was conducted with children in grade 6, in sessions of three months each. In the second year of the programme, the second module is being carried out with the students of class 7. The students and schools have been actively participating and allocating time for this new approach of teaching-learning. The activities and home assignments are designed in such a way that the students find it very interesting and fun to learn. The module also provides space for the teachers to infuse the

topics with the syllabus they have to teach/cover.

The following activities were conducted during 2016-17:

To introduce Module 2, a one-day workshop was conducted in April 2016 by the CEE team at Purva Madhyamik Vidyalaya, Itaunja, with all the teachers of the school participating. Out of the 12 sessions of the module, the first three sessions were introduced in the schools that talk about the equal importance of all living beings, be they small or big, and how the Earth came into existence. The CEP team demonstrated to the teachers using flipcharts and conducting activities.

A one-day workshop was organised at M L Convent School, Jalaun on May 3, 2016, where over 25 teachers from classes 5-10 participated. The first six sessions were introduced during the workshop along with discussions on how these activities could be linked to the school curriculum.

The CEE team organised workshops at Purv Madhyamik Vidyalaya, Bibipur and KGBV Mohanlalgunj in May 2016 to introduce Module 2 which builds a student's understanding of Earth and its evolution. The teachers found the CEP package and methodology very interesting and effective in engaging children clarifying difficult concepts related to time and evolution. The students and teachers also discussed and shared their learning from the previous module with the CEE team. Module I was introduced in 2015.

A workshop for introducing Module 2 with the teachers of classes 6-8 was conducted on June 18, 2016, at City Montessori School, Kanpur Road, Lucknow, where 26 teachers from different subject areas participated.

During the workshop, after a brief discussion about the Continued Engagement Programme(CEP) and Module 1, the first six sessions of Module 2 were introduced to the teachers. A brief feedback session on Module 1 which the participating teachers had carried out with class 6 in the previous year was also conducted. The teachers planned to complete the six sessions by September end, after which the remaining sessions will be introduced.

Short follow-up visits were organised from September to November to obtain feedback from the teachers and students regarding the module and also to understand the impact the module has had on them.

1.4.2 Continuous Engagement Programme in Rajasthan

The Continuous Engagement Programme (CEP) is being implemented in three schools of Rajasthan.

In August, a workshop was organised at each school for capacity building of the teachers about the programme and the class specific modules. During the workshop, activities were carried out with the teachers along with discussion on curricular and extra-curricular linkages. All teachers of classes 6 and 7 participated in workshop and found the module as an effective tool to deliver value education and sustainability content in the classroom through active and participatory learning.

As part of the programme, two modules were introduced: Module 1 titled 'My World' in class 6 Module 2 class 7. The students have been actively participating in the activities and home assignments and find it very interesting and fun to learn.

During the school visit, a meeting was also held with the principal and other members of the school management about the programme, its objective, requirement of their support with regard to time and involvement of other teachers in it.

CEE team visited the schools every month and carried out some sessions with the students. An interaction was held with teachers and students to obtain their feedback and assessment of learning outcomes from the programme. The interaction also sought to analyse and assess the impact of the activities. The team also followed up over phone to discuss the status and progress of the programme.

Schools found that the programme supportive of the teaching learning process as it provides a new way of transacting with students and making the classroom an enriched learning environment. The programme helped to inculcate skills among students like



In the 'learning happens everywhere' unit of the CEP module students interact to get to know community members they meet almost everyday. Here a student interacts with the local shopkeeper.

participation, team work, documentation and self-belief. Teachers also reported that the programme led to improvement in students' confidence and expression in exams as it connects students with their daily life experience.

1.4.3 Continuous Engagement Programme in Maharashtra

The programme is being implemented in three schools of Maharashtra and will continue in these schools until the academic year 2018-19, progressing through the grades with the same students, which will help the implementers get insights into learning outcomes in ESD at the educator and student level.

The programme has been received well in the schools. Teacher orientation followed by classroom activities have been carried out by all the schools. Key insights from the teachers were that they found the activities and games (approach) new and interesting and felt they were beneficial to students as they helped them build on skills of observation and critical thinking. Teachers also felt that the module which is aligned to the curriculum is good for them to learn new ways of teaching EE in particular subjects.

1.5 Children's Forest Programme (CFP)

CEE North is implementing the Children's Forest Programme (CFP) in Bareilly District of Uttar Pradesh. CFP was initiated in six districts under the Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project (UP-PFMPAP) of the UP Forest Department, supported by JICA. CEE was given responsibility for Lucknow district in Phase I. With the overwhelming response in these six districts, Phase II of the programme has been introduced with seven more districts being selected for the CFP initiative. CEE North was

given the responsibility of one more district, i.e., Bareilly, for the implementation of the programme in the second phase.

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

Nature Tour for CFP Schools: CEE team conducted 25 nature tours during November and December 2016 where over 2000 students along with 40-50 teachers attended the day long tour. The tour was conducted at the Forest Research Centre, C. B. Ganj, Bareilly. The Centre is spread over an area of eight acres, and has a meditational garden, tissue culture laboratory, arboretum, lush green forest and bamboo forest space. About 70-80 students along with 3-4 teachers in charge from classes 5-8 participated in each nature tour. The main objective of the nature tours was to provide a unique experiential learning opportunity to the CFP action team with the students getting an exposure to the splendor of nature and its varied elements, through different activities, educational games and a nature trail. The schedule of the nature tour has been planned keeping in mind that students get a learning experience full of fun where they also develop their knowledge of the flora and fauna of the area.

Environment Awareness Events: In April 2016, CEE Bareilly observed Earth Day where a programme was organised for schools working under the CFP initiative. More than 150 students and teachers from 50 CFP schools of Bareilly District participated in the event. The aim of the programme was to sensitise the

students and teachers about the causes and negative impacts of climate change. Environmental movies were screened to create awareness in the students and teachers about environmental issues and how to protect our environment.

In June 2016, CEE team observed World Environment Day with children, youth and community. Residential schools were encouraged to observe the day in the school campus. In the event organised, over 125 children from six schools participated in competitions, pledge and plantation activities.

CEE team encouraged CFP schools to observe green Raksha Bandhan. Acknowledging the fact that plants provided us oxygen and all the basic necessities for our own survival, students prepared Rakhis from waste material and tied them to a sapling which they had planted.

In September 2016, an event to observe International Ozone Day was organised for CFP schools. More than 2050 students and 150 teachers from 35 CFP schools participated in the programme. Painting and slogan writing competitions were conducted for the students and prizes awarded to winners.

In October 2016, CEE celebrated Wildlife Week by observing National Dolphin Day in collaboration with the Forest Department, Bareilly. Around 1400 students participated in the painting competition organised in CFP schools. The prize distribution ceremony for winners was held in the presence of the DFO Bareilly.

In December 2016, a bird watching trip was conducted by Bareilly Forest Division in collaboration with CEE in which student groups from four CFP schools participated.

Teachers Refresher Meet: A one-day Teachers Review Meet under CFP was organised in August 2016 at Government Inter College, Bareilly. CEE team from Lucknow and Bareilly facilitated the workshop. The meet aimed at sharing experience, helping teachers to take up school level activities such as environmental review of school campus, preparing CFP action plan, adopting CFP code for the schools, displaying and explaining the use of Educational Aids in the school campus, and activities linking CFP to the curriculum. Around 85 teachers from 50 schools participated in the training workshop.

Mortality Replacement: In 2016, CEE team reviewed the survival of saplings/trees in each school and decided on the number of saplings to be planted for mortality replacement. The plantation as part of this was undertaken during July-August 2016, with over 1593 saplings being planted in 50 selected CFP schools: 841 saplings were planted in school campuses while 752 were distributed to students and local communities.

Adopting Seven Steps: Each project school was guided to adopt a seven step process to become a CFP school. CEE team guided teachers in charge to form a CFP Action Committee engaging students, teachers, non-teaching staff and community members. Most of the schools clubbed it with the Village Education Committee and, in some cases, with Meena Manch activities. Each school formed a students' CFP group which conducted an environment review of the campus and developed an action plan. Based on the action plan, an action code was developed and adopted by each school. A system to monitor and evaluate progress was devised by the teams where meetings were held and documentation was completed. The

community's engagement in activities was also ensured by schools in different forms.

Educational Aids: Under the project, each CFP school is provided with a set of educational material including reference books, activity booklets, posters, stickers, t-shirts, caps, environment calendar, flex banner, etc. CEE team developed stickers, a tree poster and other display material. A set of publications from CEE's school series and other publishers were identified for distribution. During the year, material was distributed to 35 CFP schools.

1.6 International Eco Schools Programme

Eco School Programme in Lucknow

A school from Lucknow had joined the International Eco Schools programme in September 2014. After the orientation workshop by CEE, the school formed their Eco School Committee which then conducted an environment review of the school campus covering five thematic areas, including water and sanitation, biodiversity, waste management, energy, health and hygiene. Based on the survey results, the CEE team facilitated the development of environment action plans in three thematic areas: waste management, water and biodiversity..

As part of the Eco Schools programme, the school worked extensively towards effective management of the waste produced in their campus. The change is evident from the fact that the school campus is now declared a polythene free zone and the school practices efficient segregation of waste at source. The school has started organising an annual eco-friendly fete where students prepare items out of waste and sell them to generate funds and encourage everyone to follow the 3 R's of waste management.

Their work on biodiversity and greening has resulted in further greening of the school campus and helped students in realising the importance of biodiversity; they have now adopted trees in the school campus and feed their pets themselves. To prevent wastage and to reduce consumption of water within the school campus, and develop this into a habit, the school conducts regular awareness activities.

The project work undertaken by the school was evaluated by CEE and external evaluators and the school was awarded the Green Flag in February 2017 for exemplary work done on the three thematic areas of water conservation, waste management and biodiversity conservation and awareness. The programme is gaining momentum in the state with newer schools expressing interest in being a part of the programme.

Eco School Programme in Pune



Grade 3 students of Universal High School, Malad, Mumbai do a presentation at the assembly of the nutritional information given on the packages of food like fizzy drinks and french fries and explain the negative health impacts of these foods.

In Maharashtra, the programme is presently being implemented in four schools of the Universal Group in Mumbai and Vidya Niketan School, Pimpri, Pune.

The association with the five schools continued this academic year with school visits and facilitation for curriculum linked activities and projects. One school from Pune has received the Green Flag Award which indicates that they have received the international eco schools certification for the 2015-18 cycle.

1.7 ESD Food

ESD Food is an international collaborative learning project implemented in four countries of the Asia Pacific Regions, viz., India, Japan, Thailand and Indonesia. In India the programme is implemented in seven schools with varied themes.

The components of the programme include:

- Orientation to Teachers : 11 teachers from seven schools were oriented on the concept of ESD
- Action based Projects: The schools have developed seven different projects under the ESD Food theme.
- Interaction with International Schools: Schools regularly interact with schools in other countries through Facebook, Skype and emails. Schools regularly share their activities on Facebook, while a Whatsapp group has been developed for Indian schools to share their ideas and activities with other participant teachers.

Outcomes of the project:

Name of the School	Theme
Bharatiya Vidya Bhavan's	<i>Organic Food</i> Growing vegetables organically and using Public School, Jubilee Hills them in the school canteen Preparation of bio extract for use in pest management
Bharatiya Vidya Bhavan's	<i>Millets Diversity in India and its Importance</i> School, Atmakuri Rama Rao Millets seed bank in the school Creating awareness on role of millets in food security and nutrition value
Little Flower High School, Abids	<i>Traditional Food of Telangana/Andhra Pradesh State</i> Documentation of traditional food with nutritional value - in Andhra Pradesh and Telangana School canteen shall sell only traditional food products and must decline ultra-processed food
Delhi Public School, Nacharam	<i>Any Time Food</i> Analysis of food wastage on a daily basis in the school canteen and setting up a system to reduce the food wastage Keeping the food available to needy people in the surrounding area of the school
Delhi Public School, Nadargul	<i>Farm to Table</i> Raising leafy vegetables in the school and distributing to nearby community Creating awareness on the importance of kitchen garden in urban areas
Delhi Public School, Mahindra Hills	<i>Micro Urban Food Production – Foodscaping</i> Concept of vertical vegetable garden development using waste water bottles, cans, tubs, etc. Establishing a compost pit in the school
Meridian School	<i>Food & Childhood Obesity</i> Survey statistics on food of the partner countries Master chef competition

1.8 Hand Print for Change

Hand Print is the symbol of positive actions of individuals or groups towards sustainability in a rapidly changing world.

CEE, in partnership with Novozymes South Asia Private Limited, implemented a programme on Hand Print for Change - A Sustainability Education Initiative in schools from April 2016 to March 2017. The programme aimed to reach out to 15,000 students studying in the classes 7-9 in the five southern states of India. Adopting the club model with a group of 60-100 students per club called the Hand Print Club, CEE engaged the State Education Departments, 250 schools and 260 teachers in the implementation of the programme.

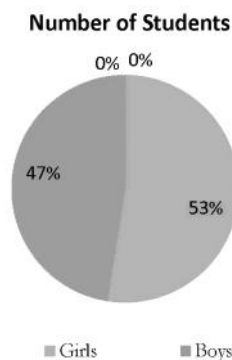
CEE developed and distributed an activity based teachers' manual, conducted 10 teacher orientation programmes - three in Karnataka, four in Telangana and one each in Andhra Pradesh, Tamil Nadu and Kerala - to capacity build schools.

On March 31, 2017, the programme had reached out to 15,349 students directly from 250 schools across the five southern states. The percentage of participation in Hand Print Clubs was 45% boys and 54% girls. The programmes led to the implementation of 693 action projects on the themes of Biodiversity, Food, Waste management, Water and Sanitation and Energy. The hand print club members further reached out to 84,343 students indirectly through various awareness campaigns, hands on activities and action projects.

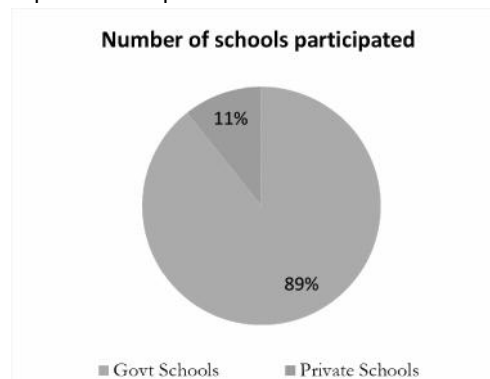
1.8.1 CEE Andhra Pradesh (AP)/ Telangana

CEE AP/Telangana states have implemented the 'Hand Print for Change' programme with

the support of the Education departments of the respective states and Novozymes. The programme was implemented in 150 schools in the two states – 120 in Telangana and 31 in AP. The goal of the programme is to prepare students to face the challenges of environmental sustainability in their own sphere of influence in a rapidly changing world. Components of the programme include orienting the teachers on the concepts of EE and ESD, sensitising students through them and taking up action based activities in schools. In each school, a student club called HPC Club is formed with 60 members drawn from classes 7-9, who are responsible for



Graph 1: Participation of the schools



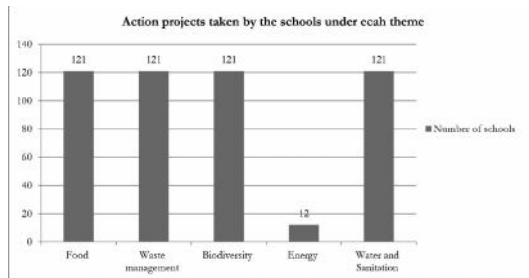
Graph 2: Participation of boys and girls in the HPC programme

creating positive actions towards environmental conservation and sustainability.

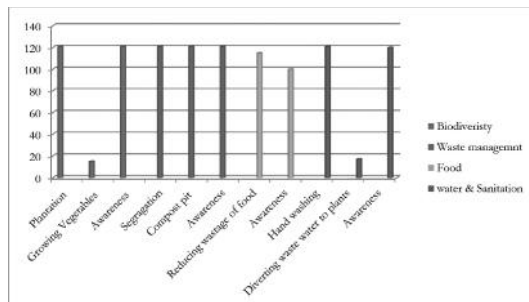
HPC clubs have to develop action projects in any three selected themes from Biodiversity, Food, Waste Management, Water and Sanitation, and Energy.

Outcomes of the programme

- 151 teachers oriented on the concepts of EE and ESD
- Around 7771 students involved in the project
- Behaviour Change : In 120 schools, students are practising hand washing before lunch



Graph 3: Action projects taken by the schools under each theme



Graph 4: Various Activities under each theme

Graph 3 & 4 represent the number of schools that have taken up action projects under each theme and the various activities conducted under each theme.

1.8.2 CEE Tamil Nadu

CEE Tamil Nadu has implemented the Handprint for Change programme, funded by Novozymes, in 25 schools across Chennai.

Action projects in Energy, Biodiversity, Food, Water and Sanitation and Waste Management were implemented in these schools.

1.9 Bio-cultural Camp in the Northern Western Ghats for Schools from Maharashtra and Goa

An educational camp was conducted by CEE with support from Wipro, in partnership with the Nature Club Akole, from October 14-16, 2016 in the environs of the Harishchandragadh and Kalasubai Wildlife Sanctuary area. The three-day camp for 12 students and five teachers of four schools from Maharashtra and Goa in the Northern Western Ghats aimed at orienting students to the unique biological and cultural aspects of the region and sustainability practices of the region.

The group was hosted by two villages, Uddavane which comprises of the Thakkarbaba community and Jagirdarwadi which has primarily the Mahadev Koli tribal community. The camp consisted of several interactions with the local community on their culture and sustainability practices and exploring the natural diversity of the area.

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1.10 Environment Service Scheme

The Environment Service Scheme (ESS) was initiated in 2011 by the Environment Department, Government of Maharashtra, to promote the importance of environment and conservation among school students through a hands-on activity concept. CEE is the



Students interact and try their hand at making 'bhakri' (the local bread) at the homestay in Jagirdarwadi village.

implementing agency for the scheme working with 62 schools from 14 districts of Maharashtra.

The participating schools are required to prepare an environment status report of their village and school, which helps them to understand and take up need based action projects. The flagship activity for 2016-17 was 'preparation of nursery' at school level. This activity included collection of seeds, its treatment, study of seed germination, preparing saplings and plantation. Fifty three schools prepared nurseries with more than 14000 saplings of local plants. These saplings were distributed to local organisations on demand, and to households which could easily take care of one or two saplings individually.

Highlights of various other school activities carried out under the scheme:

- Janardan Pawade Vidyalaya, Masod, Amravati, through the village survey, found that there is community interest in understanding 'sustainable agriculture'. The ESS unit conducted a workshop on 'concepts of sustainable agriculture' which was attended by 75 farmers from six villages. A demonstration plot has been developed in the school and students are being guided by farmers who are trying out the concept on their individual plots.
- For storing water in school, students of New English School Solagav, Rajapur, Ratanagiri, prepared a water storage tank using a locally available bamboo variety. A few other schools from the region have conducted water audits and replaced all the dripping taps in their school campuses.
- Vidyamandir High School, Kankavali chose to work on managing the solid waste

in their area by collaborating with the local municipal authorities and other schools in the area. As of 2016, they have got a complete ban on use of plastic in their area.

- 4-5 schools from Karmala Taluka, Solapur District, conducted a survey of mango varieties and documented about 60 varieties in a small semi-arid patch of the study area.
- Four ESS schools from Ratnagiri, Nasik and Solapur have installed rainwater harvesting systems in the school buildings. These schools are able to calculate the potential of harvesting rainwater from their school roof, and then measure the rainfall using locally prepared rain gauges.
- In 2016, ESS schools partnered with Wipro for the Earthian Award. Workshops were conducted in 62 ESS schools. Twenty six schools took up activities related to water. The Zilla Parishad School at Kondhar Chincholi, Karmala, won the Wipro Earthian Award 2016.
- A school from Karamala, Solapur has converted the school as an Interpretation Centre, with five spots of interest in the school campus: Rain Water Harvesting system; Butterfly Garden, Bird Restaurant, Nursery of 20 varieties, and Compost Pit for garden waste. Each student from the ESS group works as an educator on these subjects. People from other schools and even officials are visiting this school to understand different environmental activities.

ESS schools celebrate Environmental Festivals like cracker free Diwali, ecofriendly Dussehra, ecofriendly Ganesh festival, ecofriendly Holi at village and school levels, thereby also creating awareness in the community.

1.11 Mari Shala

In partnership with Reach to Teach, a charity based in the United Kingdom, CEE is piloting the implementation of a new intervention model, working collaboratively with communities and schools to support



From preparing the ground for plantation, choosing host/nectar plants to documenting entire process of their work, the students of Digambarrao Bayal Vidyalaya, Kumbhej are enthusiastically involved in every single step. With a successful garden and butterfly breeding the students are now acting as educators for visitors from far off areas visiting their garden.

enrolment, encourage attendance, improve teaching and learning quality and overall pupil outcomes. The project, which is in its third year of implementation, is working with 60 primary schools in Halvad Block of Morbi District in Gujarat.

The project promotes high quality teaching and learning in the Pragma Standards 1 to 5 classes of the government schools through a qualified teacher to 'co-teach'. In the first year, the implementation of the project was with classes 1 and 2; from this year, intensive focus is on classes 3 and 4 with continued support

and handholding of teachers to stabilise the best practices in the classroom. All the schools have deployed Pragya, an activity based teaching and learning model, and the classroom interventions are designed to enhance the impact of Pragya.

An important factor of the project is that it has interventions to ensure that children of school going age in the project area attend school regularly. The interventions include running activities to enrol and retain children with Highly Irregular attendance. In the academic year of 2016–17, 339 children were enrolled through the efforts of the project team with the help of the community, and meetings with parents and school management committees. The schools have also shown improvement in attendance. The project played an important role in the starting of a bus service in two schools for students living on farms through provision by the government.

The students have started showing improvement in learning achievements as measured by assessments. The community participation in school activities has increased in all the project villages and the evidence is seen in the form of increased attendance in meetings organised in schools, support in cash and kind for school improvement and parents coming to drop children to school and keeping track of their wards' learning.

1.12 E-Guruje

Project E-Guruji has been started by CEE Ahmedabad and Essar Foundation, Hazira, among 10 government primary schools in eight villages of Kantha Block, Choryashi Taluka, Surat. The project will be financially supported by Essar Foundation while the implementing body will be CEE. A field office of CEE has been established at Suvali for this project.

An orientation programme was organised to develop clarity and understanding about the project objectives, processes, and participation of schools and the education system. This was held on January 9, 2017, at Mora Primary School with 12 participants including 10 school principals, Taluka Primary Education Officer (TPEO) and a Cluster Resource Coordinator (CRC) attending. The following points were discussed.

- The need to understand and actively participate in the E-Guruji project by schools, society and the officers of the education department. The main objective of E-Guruji programme is to provide quality education to the students of government primary schools.
- Ways to complete the secondary/higher secondary examination by youngsters of the age group 15-25 years, who are willing but were unable to complete their education; and provide literacy to people of the age group 25-35 years in eight selected villages.

Ten government primary schools (eight schools with grade 1-8 and two schools with grade 1-5) in eight villages (viz. Hazira, Mora, Suvali, Junagam, Damaka, Rajgiri, Vasava, and Bhatalai) have been covered under the project.

To ensure quality education through advanced technology, every selected school will be given a facelift with 'Smart class', with CEE staff undertaking the smart class teaching along with teachers in the initial phase, so that the teachers are training in this. As a result of that students will have new tool for their learning process. During the project duration, necessary trainings and workshops will be organised for the teachers and active support from will be sought from the schools and the education department.

Feedbacks/Comments from teachers (participants) of the workshop:

- Every school teacher should participate in the education process through smart class.
- Planning of trainings, balmelas, etc. should be organised and managed through the project.
- Selected schools should develop a feeling of ownership of the programme which will also help them achieve higher grades in the Gunotsav programme.
- Necessary support will be ensured by TPEO.

Classroom Activity through Mobile Material:

Volunteers of B. R. S College Bilpudi, Dharampur, Valsad, who have been trained in Gujarati Grammar under 'Darshak Lokganga Yojana managed by Lokbharti, Sanosara, conducted classroom activities with around 350 students of Junagam, Mora and Suvali schools. This was a pioneering effort as activities had not been developed for teaching Gujarati grammar though such activities were available for science and other subjects. With the help of around 18 activities, the volunteers taught topics like noun, pronoun, adjective, verb and so on as a 'Learn with Fun' concept.

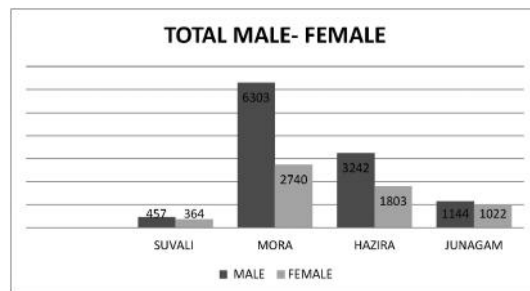
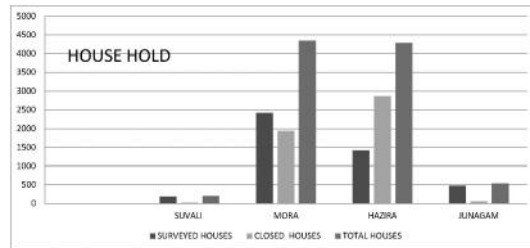
Education Facilitator Orientation Workshop:

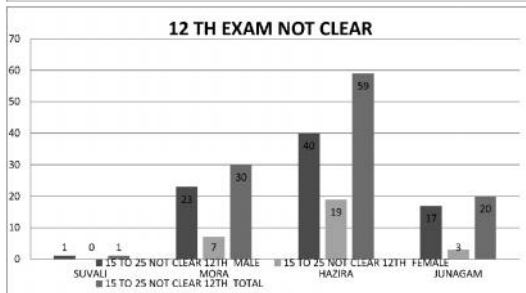
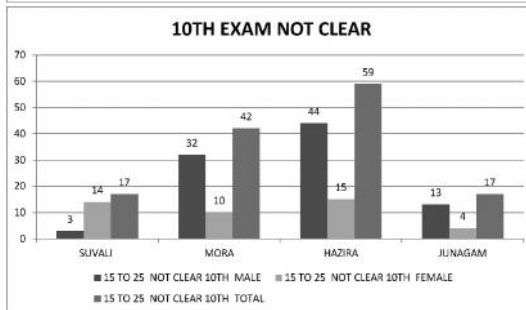
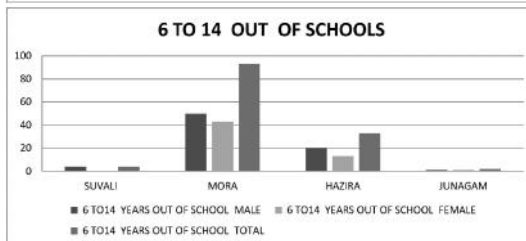
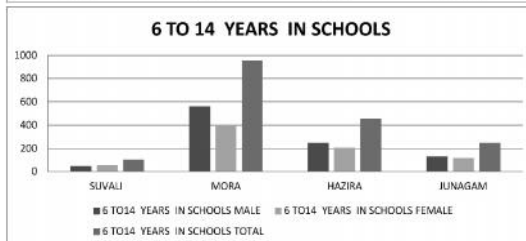
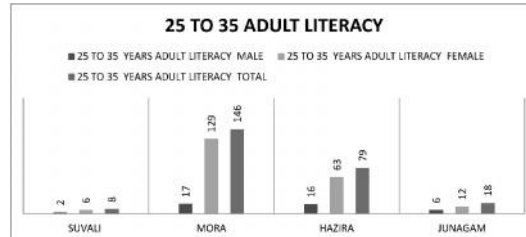
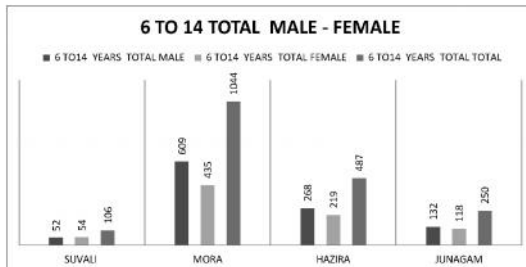
For engagement of local resource persons to conduct NIOS and adult literacy classes, an advertisement was put up in common places in four selected villages along with word of mouth publicity. As a result of this six female candidates were selected from 16 applications received for the education facilitator post.

A workshop for these volunteers for training them to help (i) the youngsters of selected villages who were unable to complete their secondary/higher secondary examination but

were willing and would like to look for better career opportunities after qualifying; and (ii) the persons who never went to school and so never gained literacy. After an orientation to the tasks under E-Guruji project, the six female volunteers started working with four villages on adult literacy and preparation for secondary examination through NIOS (National Institute of Open Schooling). They held meetings with aspirants of the NIOS examinations, and provided information on NIOS, the registration process, subject selection, examination fees and the classes initiated by CEE for their help. Three ladies from Suvali have shown interest in taking up the examination.

Door to door Survey in Four Villages: As the primary objectives of E-Guruji project are to provide quality education to the students of selected schools, make illiterate people literate in selected villages, and to prepare youngsters to take their secondary/higher secondary examinations, a door to door survey was





conducted in four villages (Suvali, Mora, Junagam, Hazira) by a team of 12 students of B. R. S College, to identify such target groups. In all, they visited 9362 houses out of which 4878 were closed. The survey showed that there were many migrants from other states working in companies in the area. The data obtained of the target groups in the four villages are depicted in the following graphs.

Classroom Activities by CEE Staff: Classroom activities were carried out by CEE staff along with teachers in four selected schools in the project area. Students responded enthusiastically and were even willing to stay back after school hours. Schools did not have Maths and Science teachers felt this as a great support. CEE staff facilitated students in carrying out experiments on their own, which sparked curiosity in them leading them to ask questions and seek answers. At present, 350 students of classes 6-8 in the selected schools are facilitated to perform Maths and Science activities.

1.13 Mobile Educational Materials Exhibition: Development and Training Programme

This project is being supported by Lokvigyan Kendra (Community Science Centre), Lokbharati, Sanosara, under the 'Darshak Lokganga Project' funded by Pidilite Industries Pvt. Ltd. As part of this project, CEE is developing theme based exhibition materials

and activity kits according to the syllabus of classes 6-8.

The training programme of the project focused on:

- Introducing participants to the exhibition, the activities of the current round, and how to carry them out
- Enabling participants to conduct a range of activities that are aimed to make children understand the concepts dealt with in the school subjects and relate them to real life
- Provide the material, obtaining feedback on the previous round and planning for the next round.

The training process included the following steps and activities:

- Feedback on the previous round – on the quantity and quality of the material provided - from students, teachers and educators through an experience sharing session, which will help plan subsequent rounds
- Discussion on the objectives of the training
- Session on connecting the materials of this round with the teaching-learning process
- Hands on activity – demonstration of activities were conducted to make the educators understand the appropriate utilisation of materials and clarification of queries. This also made the educators more confident to use the materials in the classroom.
- Material distribution – An adequate quantity of ready to use educational material was provided to the partner organisations, more of which they could buy from the local market as per their requirements. This also encouraged use of

local material for educational purposes and activities.

The partner organizations for this project include:

1. Ananddhara, Chaparda, Junagadh
2. Gram Nirman Samaj, Mahua, Bhavnagar
3. Gram Dakshina Murti, Manar, Bhavnagar
4. Lokbharti Vigyan Kendra, Sanosara, Bhavnagar
5. Lokbharti Adhyapan Mandir, Sanosara, Bhavnagar
6. Ravi Krupa Trust, Maydhar, Bhavnagar
7. Vigyan Nagari, Bhavnagar
8. Shree Hiralal Trust, Dholaka, Ahmedabad
9. Bhaibandh Project, Khadir, Kutch
10. Mari Shala Rajpur, Gandhinagar
11. Gyansetu Project, Mundra, Kutch

The subjects for which material was developed in each round is as follows.

Round No.	Subject
1	Language and Grammar
2	Competitive Exam Quiz through Tablet
3	Health and Hygiene
4	Traditional Games

1.14 Indradhanush Mela: 'Shiksha Ke Saat Rang'- 2017

About Indradhanush: Indradhanush celebrates approaches to learning that draw on real life experiences, promotes the idea that learning can be fun and can take place beyond textbooks. It is Essar Foundation's flagship educational initiative, now in its 6th year,

promoting various approaches to education that are not usually accessible to government schools. Participating in this project are a range of organisations working to make knowledge accessible to students. It also discourages rote learning which is common in our education system. The project caters to all, though student of classes 5-8 and their teachers and parents are especially benefited.

Through the many interactive sessions at the festival conducted by educational organisations, Indradhanush draws students to the idea of learning as a creative activity. The informal workshops promote hands-on activity, experimentation, learning by doing and demonstration of working models and exhibits. The idea is to encourage students and teachers to discover learning in non-structured environments the basis of which is the child's own desire to ask questions. Such an approach expands the scope of learning beyond the curriculum, infusing the process of learning with a sense of joy for both the child and the teacher.

Indradhanush 2017: Connecting Science with Everyday Life: Each year the programme is meticulously designed around specific themes on science, mathematics and environment science. From a bicycle to a toy car, a bullock cart to a tractor, the momentum of the wheel, the function of levers and the principles of physics around them is best understood with real life observation and application. Science is all around us; even the kitchen is a chemistry laboratory! The kitchen garden is can be used to learn botany. This year, a wide range of activities, models and experiments were brought in for students to explore the science behind objects, activities and phenomena we experience as part of our daily lives.

Pre-Indradhanush Activities: Every year Indradhanush schedule of activity is meticulously planned with a view to making it more participatory and educational. The school principals of the local areas are involved in the planning of the mela. For better management of the festival and better engagement of students and teachers, feedback on the event held in the previous year was obtained. The feedback included suggestions like ensuring adequate safety measures and sanitation facilities, providing local and seasonal food, ensuring enough time for students to carry out activities and inviting agencies and resource persons who are not easily accessible to schools, students and teachers in the area.

Teachers Workshop for Model Making: While Indradhanush is a students' event, teachers are provided technical and educational support in model making, especially to provide help in difficult concepts in the curriculum through connecting them with daily life. The CEE resource person for this was Ms. Khushbu Shah. The teachers in turn would help the students to prepare models in different subject areas.

Key Programme and Resource Organisations

(i) **Model making:** Keeping this year's theme in mind, and peer group learning as a strategy, award winning teachers from the state were invited to work with children to develop models that explain science concepts. The Lokmitra Trust and Rajpur Prathmik Shala were the organisations invited to work with students on model making. Students could take away the models they made and explore further. Balancing toys that use the lever principle and sound producing toys that use the principle of sound and friction, were major

attractions for the students. The organisation uses local material like thread, cardboard, paper dish, galvanised wire, etc. to make these toys.

Shri O.V. Sheth Regional Community Science Centre, Rajkot, brought nine different working models based on principles of physics. Models like aerofoil, balancing nail, clap in the air, climbing cloth clip, flying bat, straw flute, tumbler and others were a great attraction for the students.

Green the Blue Charitable Trust, Vadodara, demonstrated to as well as made models with students. Making of flexagon and 3D models of geometry helped the students understand geometry with fun. Chromatography was made simpler through an activity called 'mystery marker'.

(ii) Experiments: Jivantirth, Gandhinagar, in their interactive workshops, enabled students to perform several interesting experiments in physics, chemistry and biology, especially in the kitchen which brought to them the idea that they encounter science daily in their routine life.

Nisarg Community Science Centre, Gandhinagar, presented experiments that dispelled superstitions found in rural areas. They demonstrate experiments in basic chemical and physical chemistry of science. The activities were highly enjoyed by the students like a magic show, especially the tricks in chemistry like colour changing chemicals, invisible writing, changing the colour of flowers and fire on coconut. They conducted 15 experiments with the students during the event.

(iii) Exhibition

Agastya International Foundation, a charitable education trust that runs the

world's largest mobile hands-on science education programme for economically disadvantaged students and teachers, presented 10 different models covering Newton's law, electrical joints, human skeleton and refraction of light. These exhibits were very useful for the students to understand basic science concepts and for teachers to get ideas for classroom teaching models.

STEM Learning Pvt. Ltd. from Mumbai and Agastya International Foundation, Bangalore is in continuous pursuit of making learning a stimulating and exploratory process. With rich resource of subject experts and experienced teaching faculties, STEM has pioneered and promoted the demonstration-based learning approach; it has designed over 1000 working demos, models, visual aids and experiments to be used in science and math labs. These interactive, entertaining and informative centres give the students a first-hand exposure to popular scientific theories and principles, and ignite the young minds with the right scientific temper. During Indradhanush, they exhibited a Mini Science Centre consisting of 60 interactive math and science working models which related theories to applications.

(iv) Demonstration and Audio-visual

The demonstration activity section, which included plays, puppet shows and clay modeling, engaged a large number of students and provided ideas for educational engagement to the teachers as well.

The Lokbharti Gramvidyapith, inaugurated by Shri Kaka Saheb Kalelkar, the great Gandhian, based on the

Sarvodaya principles of truth and non-violence, showed how basic and higher education can contribute towards solving rural problems practically. The puppet show with science in them was the key activity performed by the students of the elementary education course.

Shri M.D. Mehta Regional Community Science Centre, Jamnagar; Jaybharati District Community Science Centre, Surat; and Adhyayan Sansthan, Mumbai demonstrated several activities like magic with balloon, fun with chemistry, and the working of simple machines. CEE Ahmedabad's demonstration of energy efficient models like solar lantern, bicycle with pump and environment games were also a big attraction.

(v) Science Models from Students:

Indradhanush also invites students and teachers to present their work during the event. About 100 teachers and 20 students participated in the model making and presentation programme and presented innovative working models. Some of these include:

- Treasure hunt - a game based activity for children to explore the scientific concepts behind science models and experiments based on common scientific principles. Children had to identify six concepts of science like Newton's Law and centre of gravity to complete the Treasure Hunt Card which are then used to in a draw for prizes. Two students won the full house prize in this game.
- Adventure activity - provided children a first-hand experience of the science behind adventure, besides giving them a chance to challenge their fears. Thrilling activities

like Zip Line and River Crossing were conducted under the guidance of experts.

- Science Maze - a fun learning activity that helps develop cognitive skills like understanding maps and scientific principles, especially environment science and biology. It was designed in a way that giving the right answer to a question opened up the right path to the participating students.
- Magic show – brought out the science of magic, especially that which happens around us. The famous magician S. Kumar was invited for this activity. Students realised that that magic is ultimately a science and scientific tricks.
- Virtual video game and Selfie corner - acquainted the students with the new technology and the ushering in of a new era of science.

The overall feedback from the participants in the Indradhanush event was very positive and the activities were highly appreciated.

Participant Data

Sr No.	Activity	Number of participants
1	Total number of students	2697
2	Total number of teachers	127
3	Principal meeting participants	23
4	Model making workshop participants	20
5	Treasure Hunt	1000

6	Virtual video game	2000
7	Selfie corner	1000
8	Adventure activity	1500
9	Magic show	All students and teachers
10	Invited NGOs	12
11	Science Centres	4

1.15 Gyansetu

Gyansetu is a concept developed by CEE for providing accessibility of digital education materials to teachers to improve classroom teaching. Improving their capacity to use digital technologies, updating their knowledge and using efficient teaching learning methods in the classroom, will improve the overall quality of education manifold. Gyansetu project interventions strive to enhance the capacities of teachers as facilitators which will have a lasting impact on their classroom interactions.

Initiated in 2012 with the support of Education Innovation Fund for India (EIFI) 2012 as an award, Gyansetu has developed an Android based application and portal to connect teachers through a server. It is an online as well offline educational Android application. As a pilot project, 10 school teachers of the tribal area of Valsad District provided tablets to enable access to the application and the portal (a website). The tablet was preloaded with educational audio- visual/digital materials procured and developed by CEE. With the success of the pilot, the project has been extended to 183 school five districts of Gujarat. It has also been extended to grades 1-8 for all the major subjects.

In Mundra, the Gyansetu project is implemented as part of the CSR activities of MICT, Mundra.

Gyansetu Advance is a version of the project that enables school teachers and students to interact using a technology platform. The objective of this portal is to facilitate existing education methodologies in various ways including imparting of new skills to teachers as well as students, providing useful content apart from regular school curriculum, enabling teachers to continuously evaluate student skills and enabling self-paced learning for students.

Key Activities of the Project

Teacher feedback and review meeting: As the Gyansetu application and supportive hardware need an orientation before before being used, and many teachers were keen to be part of the project, an orientation workshop was conducted with 19 teachers, three CRCs and one BRC participating. They were briefed on the project and on the use of the device by the technical team of CEE. The first review and feedback meeting was organise with teachers at the Block Resource Centre, Mundra. The experience of Gyansetu material and issues related to operating the application through the tablet were discussed. The new features of 'Student corner and Question paper in the Gyansetu application was shared with them. A common issue identified was low mobile network coverage which made it difficult for them to use the tablet. Daily routine and technical errors were also problems and solutions for these were suggested during the meeting. Since the system works offline too, they were asked to update the application at home or an area with good coverage. In some areas, lack of electricity posed a challenge. Under the Gyansetu project, 50" LED TVs were

provided so that the ICT material in the tablet could be projected.

Gyansetu Advance: Gyansetu is used by teachers for accessing information through internet ultimately benefiting the students. The idea behind the Advanced version is to develop the application so as to be accessible to students. The student version of Gyansetu provides space for children to learn according to their own pace and learning styles. The basic idea is to develop the web-portal and browser based application which can be accessed from any device like laptop, tablet or even mobile phone. The teacher facilitates the student log in. With the individual login, they can understand the subject, do the activities (for which material is provided), and ask for teachers' help. They can give the exam by their own schedule. All this can be monitored and facilitated by the teacher who controls the software. All the data from students to teacher and teacher to principal at school level will be automatically synced to a central server which can extract the data and progress of students.

As this requires considerable research and development, a workshop was organised with resource persons such as education consultant of UNICEF, textbook writer, software developer team, designer and education expert from CEE and Education Department, Government of Gujarat for brainstorming the draft level of Gyansetu Advance software. The workshop threw up a lot of inputs, learnings and suggestions, based on which the Software Requirement Specification (SRS) for The Gyansetu Advance has been developed. This year, the system has been installed in six schools which would be updated with feedback from the teachers who use it.

1.16 Bhaibandh: Mobile Education Vehicle at Khadir, Kutch, Gujarat

This project is supported by Nanhi Bala Cheritable Trust, Mumbai, who provided a bus which can be used as a mobile educational vehicle. Khadir is an island situated in the little Rann of Kutch containing 17 villages which are located in interior areas with little access to facilities. Education is also a challenge for the students with not enough staff in the schools – against a requirement of around 140 teachers for the government primary schools, only 40 teachers are available to handle around 2000 children in the area.

The focus of the Bhaiband project focus is to provide additional support to these teachers to conduct activities in the schools which would also help to maintain the enrolment in the school. The content is procured from the mobile education material development project supported by Ravikrupa Trust, Sanosara.

Under this project, last year, four rounds of activities under different subjects have been conducted and 1656 students benefited from them.

1.17 Anandshala

Enhancing Students' Participation in School Proceedings through Students' Cabinet: A CEE-TCS collaborative

Right of Children to Free and Compulsory Education (RTE) Act envisages all children between 6 and 14 years to get free quality education. RTE assures that every child has a right to quality elementary education and the state, teachers, families and communities have to fulfil this obligation together.

Anandshala, a whole school approach for the holistic development of the child, has emerged

as a solution to deal with this issue. The Anandshala approach, developed by CEE in 2003, has been used since then as a model and methodology for education by various stakeholders in different states. Literally meaning 'school of joy', it is a model for the holistic development of a child, established 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 developing a child friendly school environment. The model correlates formal education with life skill activities, thus also reorienting education for sustainable development.

The 'Anandshala Gandhinagar' approach is being implemented by CEE West with support from Tata Consultancy, Gandhinagar, in four government schools of Gandhinagar. The project aims to increase students' participation in the decision making process in their school and to bring in systemic intervention within the existing school system to ensure that students' voices get represented/acknowledged in decision-making, to enhance/revive the school's link with the local community/village, and to actively engage the School Management Committee (SMC) in school processes.

Activities conducted under the 'Anandshala Gandhinagar' project in 2016-17 are:

Orientation Workshop: As a first step to implementing the Anandshala approach in Gandhinagar, an orientation workshop was organised for various partners, principals and teachers involved in the project. Besides introducing the approach, school water and sanitation issues and possible solutions were also discussed.

Real-life based Activities: A variety of interactive and real-life based teaching-learning activities were conducted for students of classes 6-8 in each project school using the Mobile Education Van, with the focus on Water, Sanitation and Hygiene (WASH), and Nutrition. The approach aimed to institute inclusive and joyful learning, to support the teacher to deal with multi-grade multi-level classroom situations, and to enhance the quality of education through a child centric intervention. Nutrition related activities included checking the nutritional value of the food, checking hemoglobin levels, calculating the BMI index and making soap.

Student Council for School Level Planning and Involvement: One of the objectives of 'Anandshala Gandhinagar' was to increase student participation in the decision-making process in their schools. The Student Council, which was formed for this, actively represented all the students of the school and was involved in daily routine, decision making on all issues, democracy education and ownership generation. In all four schools an election was conducted, and six students were elected for the Cabinet, with 12 portfolios being identified for them.

School Management Committees (SMC) for School Development Plan: Developing a 'Child Centred and Child Friendly School' was a major objective of the project, emphasis was laid on involving the communities for school and child development. A one-day workshop was organised in December 2016 for all the SMC members of the project schools, where the educational activities were linked with hardware improvements in schools, and an understanding of quality education and participatory approaches was sought to be developed. Some of the activities and ideas

shared with the SMC members include hand washing facility enhancement plan, kitchen garden, energy conservation and repair of sanitation unit.

Exposure Visit for Student Council Members and Teachers: was organised to the 'Mari shala' School, Rajpur, Gujarat to share the experiences of how students, teachers and the community were involved in hardware and software tasks, and in the processes of school development plans. Each Council then prepared their school development plan, with the participants envisioning their 'dream school', focusing on the changes that need to be brought about to make the school a joyful place where they would love to come. Some activities they could introduce to improve the quality of teaching-learning along with infrastructure improvements were also discussed with the respective school authorities and SMCs.

Visit to Grambharti Amrapur & KGBV Gandhinagar, Gujarat: An exposure visit was organised for the teachers of the project schools and SMC members in April 2017, to observe and understand different school options for the Anadshala students, enrollment in class 9, government schemes for schools, and enhancing awareness on action projects. They get to know about Government scheme schools. Noticeable characteristics in both the schools visited were low cost options for activities, and environment and child friendliness. Both the schools are residential and so dropout rate is low.

Vacation Workshop at Summer Camp: A vacation workshop was organised in May 2017, with different sections like origami, traditional games and art and craft, with the objective of exposing children to new activities and experiences and providing them a chance

to explore and try new things along with skill development like sharing, team work and participation. Emphasis was given to activity based joyful learning that generated interest in various subjects other than the curriculum. About 240 students of classes 6-8 from the four schools attended the two-day workshop.

Subsequent to the orientation and capacity building workshops, school development plans were prepared in a participatory manner involving the student council members, teachers, principals and community members, and designs, locations and budgets arrived at. The work envisaged included creation of hand washing unit for children after mid-day meal, kitchen garden, bio-fencing, creation of Ram Dukan, India map on the ground, all of which were also directly linked with the curriculum.

At the beginning of the project, the condition of the schools appeared difficult to work with, but with the tremendous efforts put in by the team along with the support and enthusiasm of the SMC, principals, teachers and students, the mission was achieved.

In all the schools, their school development plans have been developed and is currently functional, with their sustainability lying with the student council, who have been allocated special time in the daily schedule of the school. To cite an example, the primary school of Dholakuva has been able to install a functioning hand washing unit in the school premises as part of the project.

1.18 CEE Ka Bioscope (CKB)

CEE ka Bioscope 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 learning in Environmental Studies, Science as

well as Social Sciences. In its eight year, CKB programme has reached out to 300 students of grades 7-9 of Rachana School in Ahmedabad. Two different modules, viz., Population and Development, and Sustainable Agriculture were dealt with during the year.

Various teaching-learning methods and tools were used as part of the programme, including power point presentations, lab-based sessions using internet connected machines, global positioning system (GPS), Google Earth, 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 the Census Department, Gandhinagar. A visit to Sundarvan, CEE's Nature Discovery Centre, was also organised. One-day and one-night educational tours to CEE's campsite at Bakore and Lokbharti for senior grades were held this year. The education tours were organised as part of the Sustainable Agriculture and Population and Development modules respectively. The tours were followed by a one-hour internet-enabled computer session.

Camps of three days and two nights at CEE's camp site at Beyt Dwarka on the coast of Gujarat were also organised, followed by a one-hour internet-enabled computer session.

A CKB Programme Manual, consisting of a set of two books, was finalised. One of the books elaborates on the programme and the standard operating procedures while the other consists of annexures in the form of ready-to-use resources like forms, formats, presentations, link diagrams and others.

1.19 Swapnilshala

To address the issue of migration, and to ensure the provisions of RTE Act, the Anandshala approach developed by CEE in 2003, has been adapted as 'Swapnilshala' and is being implemented with the support of Ashiana Housing Limited at the Government UPS, in Ghatal, Bhiwadi, which is an industrial hub of Rajasthan where migration is prevalent. With a child centric intervention to mainstream him/her, Swapnilshala project could be a model that can be replicated by the education department and the government for achieving the goal of education for all. The model pulls together a comprehensive range of quality interventions in education from the national and international levels. In accordance with the National Curriculum Framework (NCF) 2005, and RTE, Swapnilshala emphasises a holistic approach to enable construction of knowledge among students. The model correlates formal education with life skill activities and thus reorients education for sustainable development.

Activities conducted under the Swapnilshala project in 2016-17 are:

Capacity building of teachers as facilitators of education: Workshops for teachers on teaching learning methodologies, communication and management, and ways to teach specific subject areas, were organised to make teachers understand the importance of creating learning environments that are more interactive. These programme helped teachers to identify the different learning needs among children, to understand the learning styles of children, the importance of teaching learning materials (TLM's) and how to make them, so as to improve academics as well as the overall performance of the children

Promoting child to child approach of learning:

When children play, they use all their senses – hearing, seeing, tasting, touching, smelling and moving – to gather information about their world. Play comes naturally to children and hence is filled with opportunities for children to learn and develop new skills. Later they gather information through language. Many such activities were conducted at the project school in Ghatal to facilitate inclusive education via peer learning. These included celebration of major environmental and other important days as per the academic calendar of the education department. Activity workshops and competitions for students were organised along with fun games like face painting, art and crafts. These activities helped to inculcate skills among the students like planning, participation, expression, team work, creative thinking and presentation of their work.

School newsletter by students: Two issues of a student led school newsletter were developed as a platform to express the students' voices and views. The articles in the newsletters covered issues like their likes and dislikes, their problems, observations and experiences inside and outside the school, activities and learnings.

Special Training Programme (STP): STP was conducted with non school going children of 6-14 years along with other children who were graded as below age appropriate attainment level and were facing difficulty in learning language and maths. While it helped such children attain a better level of learning, it also supported the teacher to deal with multi-grade multi-level classroom situations via a child specific intervention. STP involved approaches of joyful learning using a variety of teaching learning approaches like games, performing

arts, art and crafts. Community members were also involved in a few of these activities.

Community stewardship for school development and management: Since one of the objectives of Swapnilshala was to develop a 'Child Centred and Child Friendly School, involving communities for school and child development was given special attention. With the SMC as the focal point, various activities like visualisation workshop, formal SMC orientation, involving community in special training programme for students, informal interaction during mid-day meal and celebration of important days at school were organised, with a view to identifying roles and shared responsibilities for the school. Community participation played a key role at each juncture of the project, including bringing non-school going children into the special training programme, Bal mela, and other developmental work like making swings from tyres, building a periscope, painting, gardening, etc. Involving community in such activities also developed a sense of responsibility ownership in them.

Learning for the environment, by the environment, of the environment: Using the school building as a learning tool is about developing and using the physical space and infrastructure around the child as a learning resource in a child friendly manner. Swapnilshala laid emphasis on using the physical settings as learning elements across various subjects and concepts as well as grades which also established an interface between pedagogy and physical space. Swapnilshala managed the dynamics between flexibility to accommodate change/development and incorporate sustainability within the design of building and ground. While developing the teaching learning

material (TLM), children's views on difficult topics were also taken into consideration, leading to preparation of class wise, interactive materials. A space was also provided for making the TLMs interactive and situational.

Classrooms were designed for whole-class, group and individualised teaching and learning, with special attention being given to the interior areas, colour scheme of the walls, flooring and lighting. The verandah and pillars outside were also used for designing the TLMs while the waste generated became a resource for making TLMs too with a workshop designated for it. Hand washing, drinking water facility and mid-day meal areas also received attention in terms of suitability and ease of use for children. A dumping ground for chemicals and other wastes by nearby industries within the school premises was transformed into a rain water recharge area, while green corners served as biology labs. Curved seats were constructed surrounding the trees at various location where children could interact comfortably. The seats also became TLMs games and puzzles painted on them.

Community handover of Swapnilshala: After working on the school for a year and a half, the school was handed over to the school authorities and community via an event on August 19, 2016. The event witnessed the presence of Mr. Hem Singh Bhadana, Minister, Food and Civil Supply & Consumer Affairs, Government of Rajasthan as chief guest, along with local government representatives; Ms. Shivani Jain, Programme Director, CEE Ahmedabad; BPS Architect team along with CEE Rajasthan team. School children, community members and teachers participated in this event and shared the excitement of their revamped school.

1.20 Urja Chetana

The Urja Chetana project won the Global CSR Excellence and Leadership Awards 2016 (Award Category: Developing Sustainable Strategies) for CESC Ltd. in the year 2016.

The Waste Management group at CEE Kolkata is implementing the Urja Chetana programme, which is supported by Calcutta Electric Supply Corporation Limited (CESC Ltd.) as part of their CSR activities, since 2012. It is an environment sustainability education programme aiming to generate awareness and action related to the environment and sustainable development, amongst students, teachers and community members. The programme is implemented in 30 schools in and around Kolkata through existing/to be formed eco-clubs/energy clubs. It provides a platform to the schools to undertake action projects through community outreach, thereby helping children to share and expand their understanding, and bringing about change that has significantly reduced wastage of energy and rainwater, as well as managed waste and nurtured plants.

During the year, various capacity building workshops on composting, waste paper recycling, product development, rain water harvesting and medicinal plant garden were conducted for students and teachers to enable them to implement and sustain these best practices in their respective schools. During the trainings, teachers were oriented to different facets of environmental conservation and sustainability. Exposure trips to solar a power plant, a thermal power station, organic farming and botanical garden were organised for the students to augment their classroom learning. The schools participated in the Energy Week celebrations where eco-club

members shared their knowledge and experience with the entire school during assembly, by practical demonstrations and conducting various competitions that boosted the creative skills of the students. The schools celebrate special environment days with community members. The school wall art by the students has helped to communicate key environmental messages not only to the students themselves but also to the nearby community at large, while also promoting a healthy school environment and protecting the premises from nuisance. The students also disseminate the knowledge gained under the programme to nearby communities by conducting a series of community outreach and awareness campaigns, rallies and cleanup drives.

The capacity building of the students and teachers has helped schools to implement the best practices (e.g. composting, waste paper recycling, rainwater harvesting and nurturing medicinal plants) to sustain their school environment. Around 512.55 kg of organic waste was composted, 97.7 kg of waste paper recycled into handmade paper and then made into useful products by students, and around 2,29,365 litres of rain water was harvested by the schools during this year. The project has directly been able to benefit 175 teachers, 10,881 students and 27,071 community members during the year.

1.21 School Eco-Club Action Project

CEE Kolkata, in collaboration with the US Consulate General of Kolkata, is implementing the School Eco Club Action (SECA) project, focusing on developing and strengthening the capacity of the eco-clubs of 20 schools of Kolkata and Patna. The project also aims to develop a cadre of Young Leaders of Change (YLC), who would be trained and provided

support to implement innovative and action oriented environment and development projects in their school or neighbourhood.

SECA was formally launched by Mr. Craig Hall, Consular General of the American Consulate in January 2017. The CEE team was involved in the formation and restructuring of eco-clubs of the participating schools along with capacity building students through classroom sessions and beyond-school activities. An exposure visit to the butterfly garden of Eco Park in Kolkata was conducted for the students under the project. A massive community outreach was conducted for Clean Ganga campaign by one of the participating schools from Kolkata as part of the beyond-school initiative. The two-day YLC Summit was organised for schools of Kolkata and Patna at the American Centre, Kolkata in March 2017, with the objective of training the shortlisted project teams on different facets of leadership, sustainability, environment and development. The idea was to help them streamline their envisaged environmental action projects to be implemented in their schools/immediate neighbourhood over the next few months.

School Eco-Club Action (SECA) Project in Patna

The SECA Project is being implemented in six schools of Patna along with the schools in Kolkata. The project focuses on action oriented activities in the field of waste management, recycling, greening and biodiversity, natural resource conservation, renewable energy and traditional knowledge towards environmental conservation and protection. The activities will be undertaken with the help of environment champions/youth with the aim of reduction in their ecological footprints. The students and schools are being oriented and

facilitated for their contribution to reduce carbon footprints through inculcating the habit of recycling, greenery development and rainwater harvesting. The project also builds capacity of the teachers to impart environment and sustainability education and also build bridges between school and community through campaigns taken up by the schools.

For developing Young Leaders for Change Action Project and planning the activities, individual visits to schools were undertaken with the aim of reorganising the Eco-clubs and orienting the club members and developing YLC action plans.

1.22 Green School Rating, Assam

The aim of the project was to verify and evaluate the rating of schools applied under the state level Swachh Puraskar Award of the SSA (Sarva Shiksha Abhiyan), Assam. The activities included field visits to schools, verification of the award format and school responses, evaluation and rating against criteria, consultation with key stakeholders (such as mothers' group, SMC and student council) and resolution of problems and issues identified at school level.

CEE team conducted the inspection and field verification of 21 Green rated schools under MHRD's Swachh Vidyalaya Puraskar, for the state level Swachh Vidyalaya Puraskar. They verified the evidences presented and consulted with the key stakeholders. Based on these, three best schools were selected in the category of 'Best Maintained Green Schools' and 10 best schools from among 21 Green rated schools. The evaluation reports on the schools were submitted to the education department.

1.23 Swachhagraha Campaigns: 'Safai ke sitare ke sath selfie' Campaign

Swachhagraha is an initiative of the Adani Foundation with CEE as its Implementation and Knowledge Partner. The project takes inspiration from the Swachh Bharat Abhiyan announced by the Honourable Prime Minister of India, Shri Narendra Modi. To acknowledge and appreciate the silent efforts put in by the cleaning staff of schools in keeping our environment clean, a campaign called 'Safai Ke Sitare' has been launched by CEE with the support of Adani Foundation. The students had to click a selfie with the staff at their school/home/neighborhood with a short write-up which describes the person with his/her name, background and how important their role is for the society.

This campaign saw tremendous response from schools in Varanasi, Pilibhit, Bareilly, Allahabad and Lucknow, where students enthusiastically clicked selfies with their cleaning staff and shared their thoughts. The results of the campaign were announced on October 1, 2016 and a student from City Montessori School, Kanpur Road Lucknow, was acknowledged as one of the best entries at the national level.

1.24 Child Friendly Schools and Systems Project in Vaishali Bihar

Provision of quality education along with safe drinking water and sanitation facilities has been broadly envisaged in our Constitution under Article 21-A – 'free and compulsory education of all children in the age group of six to fourteen years as a Fundamental Right' and specifically notified in the RTE Act, 2009.

In Bihar, CEE has partnered with UNICEF and Bihar Education Project Council (BEPC) to promote Child Friendly Schools and Systems (CFSS) in 100 schools of Vaishali District, Bihar. This initiative focuses on demonstration of 'Swachh Vidyalaya - Swasth Vidyalaya' education, ensuring a set of functional and well maintained water, sanitation and hygiene facilities along with improvisation in the overall school's teaching-learning environment, thereby making the school environment a 'child friendly learning' space.

CFSS covers child friendly quality education system, activity based learning, proper function of SMC, MTA, Child Cabinet and Meena Manch, along with a clean and green environment in the school, proper sanitation and hygiene (WASH) practices by students and safe and nutritious mid day meals. School sanitation and hygiene depend on the capacity enhancement of teachers, community members, SMCs, Non-Governmental Organisations (NGOs) and Community Based Organisations (CBOs), and education administrators. A key feature of this 20 month long campaign is to ensure that these 100 schools are developed into 'Swachh Vidyalaya Swasth Vidyalaya' campuses, with extension of a similar model in all the districts of Bihar subsequently.

Initiated in October 2015, the following activities were carried out till March 2017.

Sensitisation Meeting: for members of SMCs, Student Councils and Meena Manch, with a view to introduce the project to the stakeholder, delineating their roles and responsibilities for the success of the intervention, to build rapport and elicit participation. Meetings were held in 61 schools in consultation with the District Programme Officer, SSA, Vaishali.

Orientation Meetings: were conducted in 78 schools for an in depth interaction with the stakeholders, through interactive discussions and group work. The participants in groups discussed issues related to current status and action for implementation of CFSS and presented their views. This also helped improve involvement and build rapport among them.

SMC Trainings: Trainings were organised in schools for the members of SMC, Meena Manch, Children's Cabinet and teachers, where the Swachh Vidyalaya Swastha Vidyalaya initiative and the RTE Act 2009 provisions were discussed along with their roles and responsibilities. All 100 schools were covered under the SMC trainings. Along with these, a transect walk was also organised for the participants within the school campus to identify existing gaps followed by a problem analysis exercise and updating of school development plans.

Teacher Training Workshops: To create an enabling learning environment for children and to promote child focused teaching-learning activities and materials for making learning fun in the school and classroom, and to ensure teachers' active engagement through use of innovative methodologies, two-day trainings were conducted in September 2016 in two batches to cover all the 100 schools. Around 99 teachers in-charge from 100 schools in four blocks of Vaishali attended this training programme.

Installation of Handwashing (HW) Units: Hand washing units – either fixed or portable according to suitability - were constructed and installed in 70 schools as part of the project, to develop hand washing as a daily habit among students for hygiene and reducing incidence of diseases.

Creating Enabling Learning Environment: A menu has been developed by CEE team of possible elements (tools, methodologies, child focused teaching-learning activities and materials) which could be included in school learning environment.

Promoting Use of Library: CEE team observed that in most schools, the library facility is non-existent or non-functional, with the students either unable to access books. CEE team guided the Balsansad members on the use of the School Library with a separate room is designated for the purpose. In over 50 schools, CEE team was able to develop active libraries with a set of 100 books being provided to all.

MDM Serving and Cleanliness: CEE team discussed issues related to cleanliness and behavior during mid day meals and helped schools in setting up a system for the serving of food, related hygiene practices, posture of sitting, etc.

Kitchen Garden and Composting: Balsansad and Meena Manch members were involved in developing kitchen gardens, with CEE providing seeds and training for their growing. Schools were also guided for the composting of wet waste. Teachers were encouraged to link textbook chapters to these activities.

Learning Elements: Morning assembly which is also known as 'chetna satra' was used as space to introduce various elements related to learning. Using the physical space of the school to make learning joyful is being planned through wall painting. Art and craft is also being used as a tool to encourage children to showcase their creativity and use their imagination.

IEC Material for Schools: IEC material development is an integral part of the CFSS

initiative. A set of four posters was developed and disseminated in the schools. Wall paintings were also finalised and a menu developed for using the space in the classroom, corridor, stairs and boundary walls for various messages on hand washing and learning.

1.25 Akshay Patra and CEE for WASH

Akshay Patra Foundation partnered with CEE for promoting hand washing in schools across five cities in the country. CEE North implemented the programme in 43 schools of Sarojini Nagar Block including primary and upper primary schools in Lucknow. CEE team developed communication material and portable hand washing units to showcase the ideal method of hand washing in schools. A personal hygiene kit for students was also provided by Akshay Patra Foundation to help children learn the daily habit of personal cleanliness.

Over 3114 students, 166 teachers and 93 cooks were addressed during the visits to the schools in the first week of August 2016, wherein the CEE team conducted orientation sessions and demonstration of the five step hand washing process through the portable hand washing unit. Through action songs and education activities, CEE team emphasised the role of personal hygiene and cleanliness, specifically hand washing.

The kit provided to each student included a nail cutter, comb, tooth brush and tongue cleaner, soap, sachets of hair oil and shampoo, and a hand towel. A WASH council was set up and put in charge of the monitoring of the overall cleanliness of the campus, hand washing and personal hygiene.

1.26 Invitation Programme for Teachers from India: Japan, November 6 – 13, 2016

The invitation programme for teachers from India to Japan was conducted within the framework of the 'International Educational Exchange Programme in close cooperation with the Ministry of Education, Culture, Sports, Science and Technology (MEXT) of Japan; Ministry of Human Resource Development (MHRD), Government of India; and CEE India. Fourteen teacher participants from elementary and secondary education and non-formal education centres from India participated in this exchange programme held in Tokyo, Japan from November 6-13, 2016.

The exchange programme was facilitated by the Asia-Pacific Cultural Centre for UNESCO (ACCU) with the overall objective of promoting mutual understanding and international friendship in the Asia-Pacific region. ACCU has previously conducted such programmes with Korea, China and Thailand . CEE facilitated the exchange programme in India.

Highlights of the programme

- Introduction to the Japanese educational system, its current situation, and characteristic approach (ethics education, club activities, and more) of the school education system to in-service teachers in elementary and secondary schools
- Exchange forum between the teachers from India and Japan to improve the quality of education, by providing opportunities to share their teaching experiences
- Experience of Japanese culture and society
- School visits and interaction with students by presenting Indian techniques and methodologies, especially for Mathematics.

1.27 Material Development for Schools

1.27.1 Learning Non-violence: Evolving a Gandhian Pedagogy

Children's Media Unit (CMU) has developed a Teacher's Manual for 'Learning Non-violence: Evolving a Gandhian Pedagogy', under the Learning Non-Violence project. It includes various activities based on Gandhian pedagogy. Concepts like: Understanding Violence, Understanding Diversity, Critical Thinking, Conflict Resolution, Empathy, Multiple Perspectives, Anger Management, Peaceful Demonstration, Socially Sanctioned Violence and Cultural Violence, have been introduced in the manual. The activities were tried out in three schools (Saint Kabir School, F. D High school, and C. N. Vidhyavihar) in Ahmedabad. CMU prepared a two panel exhibition on the programme to be presented at the UNESCO Week for Peace and Sustainable Development: The Role of Education conference held in Ottawa, Canada.

1.27.2 Glossary of Climate Change and EE terms

CMU coordinated and facilitated the preparation of a Glossary for the MoEF&CC. The glossary consists of two lists - List A of 25 key terminologies in Climate Change and List B of 291 words. The glossary was prepared to give the meanings of the words in simple language within the MoEF&CC context and included the background, the mandate and stand of MoEF&CC, the target or the vision on the issue, and/or the way forward with reference to the rest of the world.

The objective of compiling the glossary was to give a clear picture to the general user and media persons so that the word is not used out

of context or misinterpreted in any way. The glossary would be made available on the website of MoEF&CC as a glossary of environment related words for ready reference.

1.27.3 SDG Material for Teachers

As part of the ESD Expert Net, Ms. Rajeswari Gorana is developing educational material for middle school teachers on the 17SDGs, and is part of the small group that is conceptualising a mentoring programme which will be offered in 2017 in a virtual mode. She attended a conceptual planning meeting for both the material development and mentoring programme in Germany during July 7-12, 2016.

1.27.4 Climate Caravan Campaign Materials

CEE Central has been invited by Madhya Pradesh Clean Development Mechanism Agency for the 'development of resource material and knowledge products on Climate Change and GHG mitigation'. The knowledge products were to facilitate awareness raising on Climate Change for various groups in order to encourage them to make small efforts in their daily life for reduction of greenhouse gas emissions. The knowledge products supported the campaign titled - *Climate Caravan, Hum Sab Saath Chalen*.

1.27.5 Climate Change: Learn, Measure and Act is a workbook for middle school students and teachers, which contains information, activities and simple audits.

1.28 Seeds of Hope Exhibition

CEE partnered with the Soka Gakkai International to bring to India the famous

exhibition 'Seeds of Hope – the Power of One'. The exhibition was value-added by CEE by designing its impact assessment through a school outreach programme, a before and after survey, and interactive workshop sessions. As part of its multi-city outreach, the exhibition was taken to six schools in the National Capital Region where staff from the Delhi office conducted day-long workshops with school staff and children. Surveys were carried out in each school, data collected, and its analysis was done to feed into the main dataset of the project.

1.29 Srushti Mitra Awards for Promoting Citizens Action on Environment Conservation

4th Srushti Mitra Awards

CEE Central Regional Cell is providing knowledge support and managing the Srushti Mitra Awards (SMA) programme for the Environment Department, Government of Maharashtra. The Award aims at recognising and acknowledging the efforts and actions for raising awareness about the conservation of the environment. The Award is targeted to the people of Maharashtra including school and college students and teachers, youth, women, writers, poets, authors, photographers and the general public.

The activities undertaken during this period were:

- '*Abhivyakti Srushtimitranchi*' - a souvenir book for the SMA 2015 was developed and published. The book is a collection of winning entries of the 4th Srushti Mitra Awards.
- A set of exhibition panels was designed and developed to showcase the success stories from the award winning entries. A panel on the testimonials from the previous

award winners was also showcased to highlight the mark made by the Srushti Mitra Awards.

- The Srushti Mitra Awards were presented by the Environment Minister, Maharashtra and State Environment Minister, Maharashtra, at an event organised on the World Environment Day at Mumbai. The winners were felicitated with the Award citation and honorarium.
- The best inspiring and creative work of over 120 participants including students and adults, and four schools were felicitated and awarded by the 4th Srushti Mitra Awards 2015 from all over the state.

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

JESD is a peer reviewed international academic journal published by SAGE. It is being managed and edited by CEE Australia since 2012. It provides a platform for presenting research, debating ideas and showcasing success stories in the emergent field of ESD.

During the current year, two issues – 10.1 and 10.2 – were brought out as per schedule.

2.2 *Regional Centres of Expertise (RCEs)*

2.2.1 *RCE Lucknow*

RCE Lucknow, in partnership with eight organizations, established a network on 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.

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

- School events based on various environment related themes were organised where students and teachers from schools of Lucknow participated.
- A biodiversity focused ESD initiative – Prakriti bus – has been undertaken in Uttar Pradesh with the help of formal and non formal education institutions - University of Lucknow, UP State Biodiversity Board, Education and Forest Departments, schools, scientific institutions, Lucknow Zoo and others. This bus travels to various schools and community locations to create

awareness about the rich biodiversity of Uttar Pradesh.

- Students from the University of Lucknow joined CEE North during the year for internship and worked on various ongoing programmes.

2.2.1 *Biodiversity Festival*

RCE Lucknow observed a Biodiversity Week programme in May 2016 in Lucknow on the occasion of the International Biological Diversity Day. University of Lucknow, CEE North and UP State Biodiversity Board, along with the Regional Science City and local schools, joined hands to observe various activities during the week. A series of competitions and interactive sessions by experts were organized; more than 300 students from over 15 NGC schools took part in rangoli, tattoo making, slogan writing, quiz, essay and painting competitions. The themes for the competition covered topics ranging from butterflies, connection of biodiversity with mythology and traditional knowledge, animal trade, livelihood and others. Prizes were given to winners on the last day of the programme.

2.2.2 *Awards for RCEs*

Award for RCE Srinagar

RCE Srinagar received the United Nations University – Institute of Advanced Studies’ (UNU-IAS) 2016 RCE Award for Innovative Projects in Education for Sustainable Development (ESD) in the ‘Outstanding Flagship Project’ category. The award was for its ‘Climate Smart and Disaster Resilient Communities in the Indian Himalayan Region’ programme that has contributed towards community engagement in Climate Change Adaptation and Disaster Risk

Reduction across the Indian Himalayan Region.

The RCE Award for Innovative Projects in ESD was established in 2012 to celebrate good practices in ESD conducted by RCEs worldwide. The Award recognises projects, initiatives, and activities that have translated existing local knowledge into concrete sustainable practices, and empowered individuals and communities to make sustainable choices. The Award honours RCEs that have made outstanding contributions to sustainable practices and have influenced and strengthened various education and sustainability efforts.

CEE Himalaya and RCE Srinagar's programme 'Climate Smart and Disaster Resilient Communities in the Indian Himalayan Region' focuses on disaster risk reduction, climate change education, capacity building and sustainable livelihoods through its 'Rebuilding' programmes - Rebuilding Trust (post Kashmir Earthquake of October 8, 2005 and the J&K deluge during September 2014) and Rebuilding Faith (post Uttarakhand floods of June 16-17, 2013).

Award for RCE Kodagu

RCE Kodagu was awarded for its innovative project titled "Nature Education Programme on Sacred Groves" as one of the flagship projects by the UNU-IAS.

2.2.3 RCE Meets

2.2.3.1 RCEs Meet during the International Conference on ESD in Ahmedabad

During the International Conference on 'Education for Sustainable Development (ESD) for transforming education for children and youth', held during September 16-18, 2016 to discuss the best practices for engaging youth

and children in both formal and non formal settings and learning, a workshop session on RCEs was organised under Theme 10: 'ESD for Youth' on September 17, 2016. This session sought to facilitate the learning about how the RCEs are working to promote Education for Sustainable Development individually as well as collectively, sharing of experience, challenges faced and future strategy and partnerships. Representatives from the RCEs of CEE - Guwahati, Lucknow, Kashmir, Kodagu, Bangalore, Delhi, Mumbai and Goa - were present during the session. It was agreed that RCEs need to enhance their working together in order to empower and mobilise the youth for ESD, as active involvement of youth is vital in enhancing the ESD agenda.

2.2.3.2 The 8th Tongyeong ESD International Forum: "Sejahtera Forest for All"

The Tongyeong Education Foundation for Sustainable Development and RCE Tongyeong invited Dr. Abdhesh Kumar Gangwar, Programme Director, CEE, to attend the 8th Tongyeong ESD International Forum: "Sejahtera Forest for All" held on October 21-22, 2016 at Tongyeong, the Republic of Korea.

The event was a platform to share experiences at 'Sejahtera Forest', to review its role as an ESD platform after one and a half years' service, share thoughts on how to make better use of Sejahtera Forest and the new window of opportunities it creates for all as a platform for ESD in the Asia Pacific region. The possibilities of collaboration amongst the RCEs of India as well as the Asia Pacific were discussed in the forum.

'Sejahtera' means well-being and sustainability in Malaya. The Sejahtera Project is a joint initiative of the Asia Pacific RCE network to find an alternative path towards sustainability, acknowledged by the members

as existent within the unique traditional culture of the Asia Pacific region with its emphasis on coexistence.

As a part of the Sejahtera Project, RCE Tongyeong has established a Sejahtera Centre, a three-storey education centre with an eco-park, 'Sejahetra Forest', to serve as the hub of the RCEs network in the Asia Pacific. Being one of its kind, the 200,000 sq m eco-park was supported by the Ministry of Environment, Korea, with financial support from the Ministry and the Provincial Government of Gyeongnam, with the aim of achieving the goal of the UN Decade of Education for Sustainable Development (DESD - 2005-2014).

Sejahtera Forest consists of several amenities like Eco-dormitory, Aquatic Centre, Wetland, Rice Paddy, and Vegetable Garden. It emphasises coexistence between human beings and nature, and present and future generations, and promotes the learning of a self-sustaining lifestyle for a sustainable future.

Since the opening of Sejahtera Forest & Sejahtera Centre for RCEs in the Asia Pacific on May 23, 2015, over 70,000 people have visited facility, including those from the 23 RCEs. As a member of the Key Partner Network of the UNESCO Global Action Programme on Education for Sustainable Development, Sejahtera Centre aims to contribute to the strengthening of partnership among the RCEs in the Asia Pacific and to promote ESD in the region.

CEE and RCE Srinagar have been actively involved in creating awareness about environment and sustainable development through formal and informal learning including curriculum based activities. RCE Srinagar promotes the joyful method of

teaching and learning in 2500 schools of Baramulla District, Jammu and Kashmir, and 50 schools of Uttarkashi District, Uttarakhand, with the focus on the issues of disaster risk reduction, climate change and sustainable mountain development. CEE Himalaya and RCE Srinagar have also constructed eight sustainable model schools named 'Anandshalas' (meaning 'Joyful School') in Uri tehsil of Baramulla District, post Kashmir Earthquake of 2005. These schools enrich education by linking classroom teaching with the outside environment. Students are involved in different activities like gardening, bird watching, flora and fauna species identification, eco-camps and yoga, apart from the regular school curriculum. In addition to this, CEE India and RCE Srinagar have been contributing towards ESD by organising international and national workshops, ESD forums, and other programmes and activities.

2.2.3.3 First Asian Regional Planning and Training Meeting at Kuala Lumpur

Mr. Mubashir Sultan Zargar, Project Officer, CEE Baramulla and RCE Srinagar, represented CEE Himalaya at the 'First Asian Regional Planning and Training Meeting' on January 18-21, 2017 at University Sains Islam Malaysia (USIM) in Nilai, Kuala Lumpur, Republic of Malaysia, under the global project 'Reorienting Education and Training Systems to Improve Lives of Indigenous and Marginalised Youth'.

This was the first meeting under the project for the Asian Region organised jointly by Charles A. Hopkins, UNESCO Chair in Reorienting Teacher Education to Address Sustainability at York University and University Sains Islam Malaysia (USIM). Around 15 participants from New Zealand, Philippines, Kazakhstan, Tajikistan, Australia, India and Malaysia participated in the meeting.

'Reorienting Education and Training Systems to Improve Lives of Indigenous and Marginalised Youth' is a global project that intends to generate academic research into how schools and formal education systems could change to better meet local education needs of the indigenous and marginalised youth in traditional communities, and to develop recommendations to assist education leaders worldwide.

Mubashir Zargar presented the idea proposed by CEE Himalaya to address and promote the education system of Mobile Schools or Seasonal Schools running in the Kashmir Division of Jammu and Kashmir for the children of Gujjars and Bakarwals, the cattle rearing trans-humans (people practising seasonal migration) in the valleys of the state.

2.3 Courses Offered/Taught by CEE

2.3.1 Modules on Waste Management and Renewable Energy –

Development Management Institute: CEE entered into an MoU with the Development Management Institute, Patna, to teach two courses of 40 hours each to 20 students of the Post Graduate Development Management course. The condensed module conducted over a week included lecture-presentations, field visits, interactive discussions, assignments and projects. The courses were well received and will be offered in 2017 as well.

2.3.2 Environmental Studies - Ahmedabad University:

CEE offered the Environmental Studies course to the first year students of Chemical Engineering and ICT at Ahmedabad University. With 60 students in each batch, the sessions were held over a semester and the

final examinations and projects by the students were evaluated.

2.3.3 Introduction to Environment - CEPT University:

CEE conducted the Introduction to Environment course at CEPT University for 100 first year undergraduate students of the Faculty of Architecture, during 2016. The course was held over a semester with interactive sessions and projects as an intrinsic part of the course, with the focus on building linkages with their core discipline.

3.1 South Asia Youth Environment Network (SAYEN)

SAYEN initiatives during the year focused on engaging youth in sustainability action on their campuses and in the community, and fostering new and strengthening ongoing partnerships. SAYEN was recognised as the National Focal Point for the Young Reporters for the Environment (YRE) initiative of the Foundation for Environmental Education (FEE). SAYEN Secretariat supported the youth events organised at the Indian Institute of Technology (IIT) Kharagpur, IIT Mumbai, IIT Roorkee and Birla Institute of Technology (BITS) Goa, where guidelines for organising events sustainably were shared with the institutes. SAYEN also participated in the event organised at IIT Roorkee in March 2017. CEE continues to receive interns and the SAYEN Secretariat facilitates the process of placement of interns within CEE.

3.1.1 World Environment Day (WED), June 2016

Youth Programmes hosted a group of 12 interns from Ahmedabad University and Nirma University during the WED Week. In groups of four each, they were involved in various projects around the theme of sustainable lifestyle and wildlife conservation. These included “Study on Cities’ Green spaces”, exhibition walk-through on “Illegal Wildlife Trading” and a fun game on waste management titled “KUDO LUDO”.

3.1.2 SAYEN Internships

Throughout the year, around 120 interns and volunteers are placed in various offices of CEE, in different thematic areas and with the ongoing projects. They are involved in communication material development,

research, survey, field work, campaigning and fund raising activities. For example, Children’s Media Unit (CMU) of CEE supported two interns from Entrepreneurship Development Institute of India, Ahmedabad who worked on the topics of Climate Change and Health and Energy Access. They developed a questionnaire and conducted surveys in three slums in Ahmedabad: Ramapir ni Tekro, Ganesh Nagar and Juna Vadaj.

As a part of the ongoing partnership arrangement with KURVE Wustrow, a peace building organisation in Germany, CEE is hosting two of their volunteers during 2016-17.

3.1.3 Celebrating Sustainability: International Youth Day, August 2016

Acknowledging the role of youth as future leaders and an integral part of the sustainability movement around the world, SAYEN and CEE partnered with Rajiv Gandhi National Institute of Youth Development (RGNIYD), to organise simultaneous on-ground events in major cities across the country on the occasion of the International Youth Day - August 12, 2016.

In a one day workshop hosted at the MG Science Institute in Ahmedabad, MJK College in Bettiah, Parishkar College and Neerja Modi School in Jaipur on this occasion, over 300 youth from these institutions participated in an on-the-spot essay writing as well photography competitions. While they wrote about the need for practising a sustainable lifestyle, their cameras captured their perspectives on the national cleanliness movement, the Swachh Bharat Mission. Apart from the competitions, the youth also took a

pledge to lead a sustainable lifestyle and to consume with care.

The winners of this competition were awarded a free participation to the International Conference on 'ESD for Transforming Education for Children and Youth' held at CEE on September 16-17, 2016.

3.1.4 International Youth Day at Jaipur

Acknowledging the role of youth in the sustainability movement around the world, CEE Jaipur organised a programme on the International Youth Day on August 12 at Jaipur. Sensitisation of youth towards the cause of sustainable consumption and production, and enhancing their communication skills were the main objectives of the event. Activities organised in the programme were in line with this year's theme: "The Road to 2030: Eradicating Poverty and Achieving Sustainable Consumption and Production". The event was organised at two places in Jaipur - Neerja Modi School and Parishkar College.

The event at Neerja Modi School had an introductory session on the role of youth in sustainable development by the CEE team. An essay writing competition was organised on the theme of sustainable consumption and production. A session on photography was organised to acquaint students with the technicalities of photography with experts explaining the nuances of photography using both mobile phones and cameras. The 70 students who participated pledged to adopt a sustainable lifestyle.

At Parishkar College too, the programme included an introductory session, essay competition, photography session following which they submitted entries on the theme of Swachh Bharat, and the pledge. About 36

students from the college participated in the event.

Based on the entries, Akshat Pokharna, Kartikey Sharma Ms. Saloni Singh from Neerja Modi School and Devendra Sain from Parishkar College were selected to attend and share their views at the International Conference on Transforming Education for Children and Youth held in Ahmedabad during September 16-18, 2016.

3.1.5 International Conference on Transforming ESD for Youth & Children, September 2016

The International Conference on 'ESD for Transforming Education for Children and Youth' held at CEE Ahmedabad on September 16-17, 2016, discussed the outcomes of the Sustainable Development Goal (SDG) 4.7. The Conference specifically focused on examples of good practice highlighting innovative strategies and methodologies in pedagogy and curriculum, in both formal and non formal settings, to engage children and youth.

The session on Youth was divided into four major themes: Regional Centre of Expertise (RCE), Skill Development, Youth and Sustainable Campuses. Each session was chaired by a field expert supported by panelists. The speakers shared personal experiences and good practices, identifying what has worked particularly well and could be replicated by others, and what were some of the challenges. They then engaged in discussions on how to generate and scale up ESD action in their given thematic area and how youth can support these actions.

3.1.6 Water for Life – Sabarmati River Festival, October 2016

CMS VATAVARAN organised the Sabarmati River Festival 2016, from October 19-23, 2016 in Gandhinagar and Ahmedabad, as part of its 7th travelling edition. CEE, as the Knowledge Partner, along with VIKSAT as the Programme Partner for this festival, helped organise a media round table and panel discussions around the subject. Held at multiple venues (seven) across the two cities of Ahmedabad and Gandhinagar, this edition of the festival themed “Water for Life” had a special focus on “Conserving our Local Water Bodies”. In all, there were screenings of 45 award winning films of the CMS VATAVARAN 2015 competitive edition, which also included films of Gujarati filmmakers and films on Gujarat.

There were two thematic panel discussions in this festival:

1. Media Roundtable Discussion on River Sabarmati: Issues and Challenges
2. Panel Discussion on ‘Conservation and Sustainable Management of Existing and Potential Coastal and Marine Protected Areas’

3.1.7 Digital Payment Campaigns Held on National Youth Day, January 2017

In a transformative attempt to weed out black money and corruption from public life, the Government of India has constituted a Committee of Officers to enable 100 per cent conversion of Government–Citizen Transactions to the digital platform¹. To take a speedy leap towards a cashless society, Central Ministries, regulators, State governments, district administration, local bodies, trade and industry associations, and others are rapidly promoting adoption of

¹ Press Information Bureau , Government of India, NITI Aayog - 25-November-2016 13:52 IST

digital payment systems. This year, our Hon’ble Prime Minister has requested the youth to take the lead and run campaigns to create awareness on cashless transactions. CEE and SAYEN contributed to the call by the Ministry of Environment, Forest & Climate Change and organised hands-on presentation on cashless transactions on the newly launched UPI (Unified Payment Interface) and BHIM (Bharat Interface for Money) App in 18 cities of India. SAYEN took the initiative in spreading the message across colleges in India. About 2620 youth, students, teachers, staff, farmers and community group members were trained during this initiative. The team continues to get updates and feedback from youth volunteers who have taken charge to continue these drives in their community.

3.1.8 Spot Fixing – Youth Addressing Cleanliness Issues in the City, February 2017

Youth from JP Shah Institute of Business Administration, Gujarat Law Society (GLS) University adopted public spaces like tea stalls, vegetable vendors and cobblers as well as residential areas, and implemented innovative ideas to keep these spaces clean. About 22 spots in the city were identified and fixed. The youth took ownership of the public spaces and got down to fix unclean streets as opposed to labeling and complaining. And the results are visible for everyone to see. Their efforts were posted on the SAYEN Facebook page and received much appreciation.

3.2 Young Reporters for Environment - India

3.2.1 Young Reporters for Environment National Operators Meet, February 2017

CEE, as a member country of the Foundation for Environmental Education, is implementing two programmes in the country: Eco-schools Programme for school children and YRE for youth in India. The National Operators Meet for YRE was held in Portugal in February 2017 and Sagar Suri, Programme Officer, Youth Programmes at CEE represented the Centre as the National Operator at the Meet. Part of the agenda was to extend the age limit from 21 to 25 to be able to include University students in the programme and CEE was able to successfully lobby and increase the age limit to 25.

3.2.2 YRE Litter Less Campaign: Teacher Training Workshop, April 2017

YRE Litter Less Campaign is an awareness campaign focusing on waste management issues, using the methodology of Environmental Journalism as a skill for youth to explore their surroundings, identify problems, find solutions and share them with the wider community through journalistic pieces such as written reports, photographs or videos. The programme is being implemented in 30 schools. The activities will include an orientation and training of teachers, students projects and will conclude with an Award Ceremony in November 2017.

3.3 India Environment Festival - Be Waste Positive

World Around You (WAY) put forward an idea for a one of a kind festival to instil the concept of 'being waste positive'. The first edition of the India Environment Festival was held in Ahmedabad during February 24-26, 2017. WAY is one of the few organisations that are exclusively working for sustainable

living through the medium of environment communication. The inaugural panel consisted of Shri Mukesh Kumar, IAS, Ahmedabad Municipal Corporation as the Chief Guest, along with Shri Kartikeya Sarabhai, Director, CEE; Shri Piyush Desai, Chairman, Wagh Bakri; and Shri Sunil Parekh, Global Shapers Community. The panel members talked about the need for and importance of citizens taking ownership of their neighbourhood and the city and being sensitive to the dignity of labour. They also shared the initiatives being taken to achieve the vision of making Ahmedabad a Zero Waste city by 2030.

CEE, being the supporting organisation for the festival, co-organised a panel discussion on "Pirana – Whose Responsibility?" Mr. Prashant Pandya, Deputy Director, Solid Waste Management, Ahmedabad Municipal Corporation; Mr. Suneet Dabke, Concept Biotech; Ms. Yamini Dave, SEWA; Prof. Mona Iyer, Centre for Environmental Planning and Technology (CEPT) University; and Mr. Shailendra Jaisawal, Geocycle, participated as panelists, bringing attention to the grave situation arising out of the Pirana landfill, the need for reduction of waste and for improving the management of waste, the need for people's participation and the importance of education.

3.4 EE through Youth

A programme titled "Nature Conservation Education Programme (NCEP) for Rural Tribal Youth" was organised by CEE Karnataka, in collaboration with NMNH (National Museum of Natural History) and the state Forest Department March 16-17, 2017. During this programme which was organised at Gopinatham Nature Camp, Chamarajnagar in Karnataka, over 33 tribal youths were

sensitised on issues related to nature in the forest areas, through hands-on activities and nature exploration.

3.5 Interns at CEE Offices

3.5.1 Interns at CEE Urban

Seventeen interns, coming from varied backgrounds, were taken in by CEE Urban where they worked on several of the urban projects for durations ranging from one to six months.

3.5.2 Interns at CEE Himalaya

Four interns from Tata Institute of Social Sciences, Guwahati Campus, worked on several projects of CEE Himalaya at Uttarkashi, for periods ranging from one to two months. They also participated in the celebrations of important environment days.

3.6 Visit to CEE South Campus

Sirsi College visit to the campus : The final year students of B.Sc Forestry of Sirsi College visited CEE south campus to understand the Centre's activities and projects.

Experiencing Nature

4

4.1 Sundarvan - A Nature Discovery Centre

Sundarvan, created in 1978, is popularly known 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 82,514 visitors, including 33,664 (40.8%) children and 48,850 adults during the period. In all, 11,797 students and 1,813 teachers from 118 schools visited during this year.

Reptile Awareness Programmes was conducted for park visitors on every Sunday. It was carried out for 32 schools on other days, where about 1,879 students and teachers participated. A seven day snake survey and awareness programme was conducted for UltraTech Cement, located in Chhattisgarh. Around 1000 people of different age groups attended the awareness programme.

4.1.1 Events and Activities at Sundarvan

A photo contest to mark the Earth Day was carried out in Sundarvan in collaboration with Geetha Photo Goods. The results were announced on April 22, 2016 and prizes were distributed to the winners. A photography workshop was also organised for interested people on the same day, with Mr. Subil Shah as the resource person.

The World Environment Day was celebrated in a big way in collaboration with Skyblue Institute of Design and Het Graphics. A three day art celebration named 'Wild Art of Ahmedabad' was held, where children of different age groups from three year olds were given an opportunity to express their thoughts

through art. This received a great response with over 250 children participating in the event. Prizes were distributed to the children who scored the first three places in each age category on June 5, 2016.

Young explorers of 8 to 12 year olds participated in three separate batches of four day summer activities, which included learning about nature through hands-on learning modules, art activities and a night-camp to learn about the nocturnal life that comes alive in the dark. Activities such as guided zoo visit and nature trail, night trail at the zoo, getting to know different animal groups in the zoo, T-shirt painting, paper mache and bird watching were carried out for the participants.

As part of the Wildlife Week celebration, Sundarvan conducted quiz programmes on wildlife: one for school students of Class 8 and 9, and another that was open to all. A field trip to Polo Forest was also conducted as part of the Wildlife Week programme with a group of 32 participants of various age groups, fields of interest and professional backgrounds. Located in Vijaynagar taluka of Sabarkantha district, supporting a rich biodiversity that includes more 200 species of birds, the site has mountains that form part of the Aravalli Range and streams that fill up after monsoons. A trek to the echo point, a short hike to the stream, bathing, discussing diversity, participating in craft activities, a visit to the ancient Jain temple ruins and Harnav dam, completed a day of connectedness to nature and spirituality.

Two bird watching trips to the wetland Pariej was made twice during this year. An orientation programme was organised for bird watchers in Ahmedabad as a preparation to take part in the Campus Bird Count (CBC),

which is a sub event of the global Great Backyard Bird Count. This initiative provided a tremendous response: out of 40 campuses registered for CBC this year from Gujarat, 31 were from Ahmedabad.

On January 18, 2017, Sundarvan conducted sessions on 'Reptile Management and Marking in Captivity' and 'How to make zoo visitors friends with your friends', for zoo keepers from zoos in Gujarat and Maharashtra. These sessions were a part of a week-long specialised theme-based training programme for zoo keepers organised by Central Zoo Authority of India at Ahmedabad.

4.1.2 Grants and Support for Education Programmes

Sundarvan received the Rufford Small Grant from Rufford Foundation, UK, to carry out snake awareness programmes for government schools in Ahmedabad. Sundarvan reached out to 9,043 students and 321 teachers from 82 government or government aided schools. A folder on snakes developed through this



The usage of natural markings in captive animal management was explained to the animal keepers different Indian zoos of West Zone.

Participants in to bird watching during one of our trips to Pariej wetland.

project in Gujarati was given to all the participants. A set of posters on snakes was given to all the schools that participated in the programme for display in a prominent spot.

Two one-day teachers' orientation programmes on reptiles were conducted at Sundarvan for 60 teachers. An activity manual was circulated to all the teachers along with other material such as the snake folder and posters. Using this project as an opportunity, articles covering vital information such as precautions to avoid snakebite and things to do in case of snakebite were published in local newspapers.

4.1.3 Procuring New Animals for the Zoo

As part of networking and partnership, Nishant Construction has completed the renovation work of the crocodile enclosure at Sundarvan during this period. The Central Zoo Authority has approved our proposal to receive two African Slender-snouted crocodiles from Madras Crocodile Bank Trust (MCBT), Chennai. The national carrier, Air India, had generously provided the complimentary cargo service to transport these crocodiles from Chennai to Ahmedabad, considering the educational and conservation value of this project. The crocodiles reached Sundarvan on August 4 and they were opened to the public from August 23. Various educational activities were carried out to generate interest on these fascinating animals among the general public.

4.1.4 Young Naturalists of Sundarvan

This year, Sundarvan introduced an annual membership programme for schools – 'Naturalists of Sundarvan', especially for students of class 6-8. With an aim to create a connect between the kids raised in an urban

environment with their natural surroundings, this initiative banks on nurturing the innate curiosity within every child. The programme helps to generate an interest and awaken the naturalist within the students through three unique sessions, each focussing on three different animal groups, namely – insects, reptiles and birds. Each programme is planned at a different location and is packed with hands-on learning modules, resource materials and expert inputs.

The first batch of 70 young naturalists, from St. Kabir School, Ahmedabad, was enrolled for the academic year 2016-17.

4.2 Nature Camping

4.2.1 Nature Camps of CEE

CEE's nature camping programmes provide an opportunity to people of all ages to reconnect with nature and experience its beauty and diversity, ranging from the cold desert in Ladakh to the hot sandy desert of Rajasthan, from marine camps at Beyt Dwarka to mountain trekking and adventure camps at Mt. Abu and the Himalaya. Similarly, forest camps at Sambalpani and Bakore provide a wonderful opportunity to not just explore the unique forest ecosystem, but also obtain a peek into the life of the forest dwelling community.

During 2016-17, the Bakore campsite has been partially renovated and is in the process of getting a complete camping infrastructure with various other facilities. Twenty six nature camps were organised at Bakore during the year, giving more than 1500 campers an experience of forest trails and tribal life.

Nature lovers eagerly look forward to a firsthand experience of marine ecosystem by the sea at the marine camps at Beyt Dwarka.

The camps were organised from December to mid-February. During this period of less than three months, 22 batches totaling 904 campers spent 66 days (each batch stayed for 2 and ½ days) on the campsite, observing different types of corals, crabs and other marine life as also plenty of algal growth. Most campers were also able to see the ever playful dolphins, which makes it a memorable camp for them.

One 6 night/7 day Himalaya camp and two 7 night/8 day Trans-Himalaya Explorations – Ladakh: A journey, was also a thrilling and enchanting experience, which was much appreciated by the 31 campers who participated during this year.

Camps were organised at Mt Abu during the summer, with 11 batches involving 580 campers from all age groups camping in the wilderness of Arbudachal. A special tribal children's camp and adventure camps were also organised at Mt. Abu like every year. Along with other trekking, nature watch and camping activities, sloth bear sighting remains the highlight of the camps at Abu.

Besides Abu, four camps was organised at Sembalpani-Ambaji within Balaram Sanctuary. Sembalpani is a remote tribal area with deciduous forests near the famous temple town Ambaji. These camps provided adventurous activities such as trekking, rock climbing, rappelling and bird watching, along with a glimpse of tribal culture and land cultivation pattern. More than 256 nature lovers participated in these camps.

To mark the celebration of World Environment Day at CEE, an overnight camp for children was organised at the CEE campus itself, with star watch, night trekking, nature trails, bird watching and adventure games as its major attractions. The participating children

subsequently joined the celebrations of World Environment Day in the campus.

After the demonetisation and introduction of new currency notes, two major financial literacy programmes were conducted in collaboration with the Reserve Bank of India (RBI), Ahmedabad, for the villagers of Bakore Taluka and for CRPF personnel at Gandhinagar.

Apart from these camping experiences, various watch programmes, desert camp, monsoon camp and others continued to be organised as per the season. In all, during the year, more than 4000 people participated in these nature camps, which helped to ignite in them an appreciation and love for nature.

4.2.2 National Nature Camping Programme (NNCP)

Five batches of Nature Camps were organised during 2016-17 by CEE's Delhi Regional Office, under the NNCP Programme of Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India. The camps were sanctioned for the State of Haryana, and CEE organised these in partnership with the Haryana Forest Development Corporation (HFDC). A total of 250 school children from Haryana schools participated in the camps, each batch being of 2 nights-3 days duration. Other CEE regional offices organised similar camps under the NNCP for Assam, Goa and Uttar Pradesh.

Activities in the camps covered nature observations, study of local ecology, flora and fauna, basic field-craft, hands-on waste management practices, visits to medicinal plant garden, a nearby bird sanctuary and captive breeding centres for endangered species of Haryana (peafowl and chinkara).

Interaction sessions with experts from the Forest Department and other resource persons were also organised.

4.2.3 CEE North: NNCP at Suhelwa Wildlife Sanctuary

CEE North conducted five nature camps at Suhelwa Wildlife Sanctuary, Balrampur, under the National Nature Camping Programme (NNCP) supported by the MoEF&CC. Eco club schools working under the National Green Corps (NGC) programme were selected for these 2 nights and 3 days camp. Around 260 students and 12 teachers from six schools of Bareilly, Pilibhit, Lakhimpur Kheri, Gonda and Bahraich districts participated in these camps. The camps gave the participants an opportunity to experience the joyful and enlightening insights of nature in the Bhabhar region of Uttar Pradesh. The camping included nature trails through the forests of Suhelwa, a trek through the hilly area of Sonpathri and exciting educational activities for instilling appreciation and concern for nature. Nature trails in the day time were followed by an evening of fun and frolic with bonfire and cultural activities. Interaction with local children was an exciting part of the camp which helped them to identify birds and their sounds.

4.2.4 NNCP in CEE Northeast

CEE Northeast organised a series of five camps during the period February 4-14, 2017, in Orang National Park, Darrang District in Assam, as part of the National Nature Camping Programme (NNCP). Students from Kopati Vallabh Bhai Patel HS School, Silbori ME School, Keramat Ali ME School, Sialmari ME Madrassa and Borjhar ME from Darrang

and Sonitpur district of Assam participated in these camps.

The Orang National Park of Assam covers an area of 78.81 sq. km and forms an integral part of the Indo-Burma Biodiversity Hotspot. The park has a rich vegetation with varied flora and fauna. The camp site saw a plethora of activities including mini dramas, night forest trail, field inspection, campus mapping, habitat fragmentation, Joy of Science activities, national park visit, night sky study, cultural activities and a variety of environmental games.

More than 250 students were sensitised about nature conservation through these camps at Orang National Park. Through games and activities, various environmental concepts were transacted which would create a lasting impact on the young minds and an awareness about the negative impacts of unplanned and injudicious human activities and habitat fragmentation.

4.2.5 Nature Camps in CEE Karnataka

CEE Karnataka, in collaboration with the Forest Department of the state, conducted nature camps for rural school children of class 8 and 9 of government schools at Honnavar Range, Kasargod Eco Beach, Hireguthi Range and Gerusoppa range, with the aim of sensitising them on nature, forests, wildlife and conservation. Nearly 350 students in seven batches participated in this programme. The approaches followed in this programme involved learning through interpretative games, discovery of the forest around and interactive sessions on topics related to forest and wildlife, followed by hands on activities and screening of wildlife related documentaries.

As part of the World Environment Day, a one day nature camp was organised for teachers and student representatives from 30 schools of Kushalnagara Taluk of Kodagu. The event was jointly organised by the Forest Department, Education Department and CEE Karnataka. From each school there were 2 representatives (1 teacher and 1 student). The participants (one teacher and one student representative from each school) were sensitised about forests, the need for their conservation, and their importance for the existence of the river Cauvery.

A one day educational programme on medicinal plant conservation was also organised for school students by Foundation Foundation for Revitalisation of Local Health Traditions (FLRHT), which was facilitated by CEE through activities and eco games.

4.2.6 CEE Pune: Pashan Nature Education Centre

Recognising the ecological importance and the ecosystem services provided by urban wilderness areas, an educational project 'Awareness and Education about Birds in Pune City', has been taken up by the Pune Municipal Corporation and Indradhanushya Centre for Citizenship and Environment Education, which is being implemented by CEE. The project site is Pashan Lake in Pune.

A visitor centre is being developed as part of the project. An educational programme that includes activities at the interpretation centre, nature trails, bird watching activities and expert talks is also being carried out.

The visitor centre would house a diorama, photo text panels and a photo collage of key bird species. Several wayside signages are being installed that would provide on-site

guidance to visitors on the local ecology and water systems, and key species of plants and animals. The visitor centre will also have a small library and bird watching equipment. The educational approach focuses on:

- Developing a love and concern for nature
- Understanding the ecosystem values of the site and ways of conserving it

The programme has been developed in partnership with local experts. The resource



Concept of wetland and watershed being simplified by nature educator on a trail for grade 4 students of PMC school.

material developed for the educational activities includes an educator's manual, self-guided nature trail brochure for the educators and general public, and a specially designed Nature Journal for children to start them on the journey of exploring the environment. CEE has conducted nine nature trails at Pashan, of which six were for PMC schools while three were open to the public.



Grade 6 students from PMC school taking tree autograph in their nature journal.

5.1 CEE-ENVIS Centre on Environmental Education and Sustainable Development

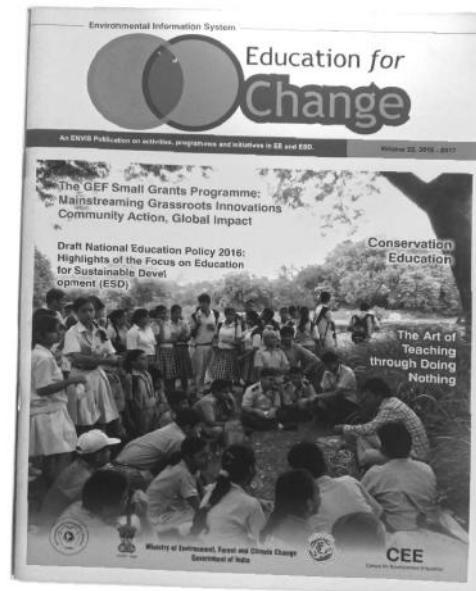
ENVIS, a programme of the Government of India, Ministry of Environment, Forest and Climate Change (MoEF&CC), is a decentralised network of distributed subject oriented centres integrating national efforts in environmental information collection, collation, storage, retrieval and dissemination. It comprises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

CEE has been hosting the ENVIS Centre on Environmental Education (EE) and Sustainable Development (SD) for the last 25 years. The following mechanisms have been set up at CEE for fulfilling the ENVIS responsibilities and objectives.

1. <http://ceeenvnis.nic.in> – the website for the ENVIS Centre on EE & SD
2. Query-Response Service - to respond to information requests on any aspect of EE
3. *Education for Change* - a quarterly newsletter to disseminate information on EE and ESD
4. E-Library

5.1.1 CEE ENVIS Website & E-Library:

The website has been restructured according to the ENVIS website template provided by the Ministry with a number of informative databases on EE & ESD such as: E-library with categorised articles, journals, books and e-books, glossary and bibliography; relevant online links for kids; list of prominent environmental leaders; internationally important environmental days; feature stories



and reports of different events celebrated with kids and students within the Centre; list of EE and ESD organisations; information on the national and international universities with EE and ESD as a subject for the students; information on environmental treaties, conventions and milestones. The website also has an updated section on upcoming events, recent news and major activities of the Centre on the thematic area. It has resources on EE and ESD for schools like curriculum activities for students of primary and secondary sections, school projects, audio-visuals and publications on EE and ESD by the Centre in various languages. The website is being updated regularly.

5.1.2 *Education for Change* – ENVIS Newsletter:

Three issues of this quarterly newsletter were published in an electronic format, while an

annual print of the newsletter focusing on selected articles from the three was brought out in the fourth quarter. The annual print newsletter also featured as the cover story the GEF-UNDP Small Grants Programme: Community Action, Global Impact, as the programme is completing 25 years of presence in India. This issue of the newsletter was launched during the GEF-SGP India Meet held during March 15-17, 2017 in Ahmedabad. All the four issues have been circulated widely and also uploaded on the website for easy and free access.

5.1.3 Query Response Management Service

This is a significant function of the ENVIS Centre and as part of this, the ENVIS Secretariat solicits enquires across regions and strives to answer them. The Secretariat received more than 1600 queries pertaining to various topics and themes like environmental courses, climate change, biodiversity, natural phenomena and others. These were received through email and phone calls. Besides, queries were also received during the ENVIS team's visits to various schools to promote EE and ESD as well as ENVIS activities.

5.1.4 Outreach to Schools

As part of ENVIS activities this year, the Centre reached out to about 50 schools in Ahmedabad to generate awareness about ESD in general and ENVIS activities in particular. During these sessions, teachers and students were also encouraged to ask/write any queries they had relating to the environment.

5.1.5 Ideas for a Swachh School

Ideas for a Swachh School is a publication brought out by the ENVIS Centre as an initiative to promote the national campaign, 'Swachh

Bharat: Swachh Vidyalaya (SBSV)' (Clean India: Clean Schools) of the Government of India. It explains *swachhta* or cleanliness in the context of a school and gives 55 steps towards a *swachh* school. A handy compilation of ideas written in simple language, the booklet can be used by school managements, teachers and students.

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 the films as an educational resource; produces print materials to support and promote film distribution — film catalogues, newsletters, periodical publications, etc.; promotes the dissemination of films on environment, development and social justice issues through various channels — print, Internet, workshops, film festivals; and also produces own films and publicises films produced by others.

CMU continued its function as a Video Resource Centre this year too. Various environment and sustainable development related films were borrowed both by programme groups within CEE, and by external institutions, for use in training programmes and for public screenings. Schools, colleges and NGOs continue to use this resource for their needs.

6.1 Interpretation Centre at Bir Talab Zoo, Bathinda, Punjab

An Interpretation Centre was designed, developed and set up by CEE at the Bir Talab Zoo, highlighting the forest, wetland and bird diversity of the area. Dioramas with live size models recreating the habitat, sound exhibits, and Augmented Reality were the multi-media techniques used for enriching visitors' experience to the Centre.

6.2 Museum-cum-Interpretation Centre at Jabalpur

A museum-cum-interpretation centre was set up at the State Forest Research Institute, Jabalpur, Madhya Pradesh, in December 2016, by the Protected Area Interpretation and Eco-tourism (PAIE) group and the Studio at CEE Ahmedabad. The centre engages the visitors on the subject of forest ecology and the science of forestry. The highlight of the project is a 40 foot long diorama depicting the various interactions amongst animals and plants in a forest.

6.3 Bhagyanagar Nandanavanam Park Interpretation Centre at Narpally

CEE Hyderabad office has received approval for Concept, Designing, Developing and Erection of panels and 3 D models at Bhagyanagar Nandanavanam Interpretation Centre. The work is currently in progress.

6.4 Signages at Pushpagirir Wildlife Sanctuary

CEE Karnataka, in collaboration with the Forest Department, has developed outdoor signages on nature and wildlife conservation

at Pushpagiri Wildlife Sanctuary in Kodagu District, Karnataka.

6.5 Interpretation Centres in Tamil Nadu

The Forest Department, Government of Tamil Nadu, with financial support from Tamil Nadu Biodiversity Conservation and Greening Project (TBGP), and technical support from CEE, has initiated Interpretation Centres at Amrithi Zoological Park, Vellore District and Zero Point, Kanyakumari District with a view to transforming a recreational visit into an educational opportunity.

The media being used in the interpretation centres are informative and interactive panels, dioramas, displays and wall paper.

7.1 Assessment of Social Dependency and Governance Aspects in Critically Vulnerable Coastal Areas (CVCAs)

CEE, with the support of and in partnership with the National Centre for Sustainable Coastal Management (NCSCM), facilitated field studies in the coastal areas of Karwar (Karnataka); Gulf of Kachchh and Gulf of Khambhat (Gujarat); East and West Godavari, Coringa (Andhra Pradesh), as part of the research study on “Assessment of social dependency and governance aspects in Critically Vulnerable Coastal Areas (CVCAs)”.

The project objective is to capture household level perception and data related to the dependency of the community on the ecologically sensitive natural coastal resources and their ability to manage them. The observations recorded included those on natural resource availability and dependency; livelihood aspects; perception about threats and solutions; participation in conservation and management aspects.

The sites are identified as per the indicative list of CVCAs mentioned in the CRZ 2011 Notification. The NCSCM had developed the questionnaire and survey instrument through expert consultations.

CEE facilitated the field implementation with support from local administration and NGO partners. The process involved training of graduate youths, especially from the social science background, and a few community members on the use of the survey instrument; sampling methodology; conducting household interviews and uploading the data on the server.

The results of the field studies were captured from different sites onto a central server and the data analysis was undertaken by NCSCM. The results of the research study will help in the development of a decision support tool for the MoEF&CC and state governments to identify potential areas for developing co-management strategies involving local community, and provide overall inputs for strengthening sustainable development and biodiversity conservation efforts in coastal areas.

The survey covered around 106 villages and 1926 households in the Gulf of Kachh; 282 villages and 1820 households in the Gulf of Khambhat; 52 villages and 1170 households in East Godavari-Coringa; 34 villages and 843 households in Krishna; 32 villages and 957 households in Karwar. The research study will be further used by NCSCM to provide inputs for strengthening the CRZ Notification and encourage stakeholder consultations for participatory management efforts.

7.2 Seeds of Hope Exhibition

The Seeds of Hope exhibition was created by Soka Gakkai International (SGI), in partnership with the Earth Charter International, as a resource for the UN Decade of Education for Sustainable Development (UNDESD). The “Learn, Reflect, Empower” formula used in this exhibition was introduced by SGI President Daisaku Ikeda in a proposal on ESD for the World Summit on Sustainable Development in 2002. CEE partnered SGI in India to measure the impact of the exhibition among school going children.

The primary aim of the exhibition is to instil a sense of belongingness among children and an awareness of how an individual can make

a difference by learning, reflecting and taking action.

The exhibition was showcased in three Indian cities – Hyderabad, New Delhi and Kolkata. The objective of holding this exhibition in Indian cities was to measure the impact of interventions (guided and facilitated tour) among secondary school children.

Children’s Media Unit (CMU) of CEE supported the process of designing the study and reviewing the questionnaire for carrying it out.

7.2.1 Evaluation of Seeds of Hope Exhibition - Kolkata

CEE Kolkata facilitated and showcased the Seeds of Hope Exhibition at six schools in Kolkata, during March 2017. The exhibition focused on communicating education for sustainable development to high school students. The exhibition was shown to two sections of Class 9, wherein one section participated in the activities and facilitation by CEE while the other section did not. The students were observed noting down facts and figures from the exhibition panels. A pre and post test for both the section students was administered just before and after the exhibition to gauge their perception levels. The exhibition has been able to instill a sense of belongingness among children about how an individual can make a difference by inspiration, learning, reflection and taking action to save the environment.

7.3 Textbook Analyses

CMU carried out textbook analyses for two themes — (a) Gandhi and (b) Transport and Mobility.

7.3.1 Content on Mahatma Gandhi

Twenty NCERT textbooks (as given below) were reviewed for content on Mahatma Gandhi.

Class 1 & 2: Hindi, English and Maths

Class 3-5: Hindi, English, Maths and Environmental Studies

One of the findings of the analysis was that the first time students of primary level are introduced to Gandhi is in class 5 through Environmental Studies. This textbook mentions the incident of Dandi March which took place during India’s freedom struggle is described.

7.3.2 Content on Transport and Mobility

An analysis of textbooks of classes 1-8 was undertaken by CMU for GSEB (Gujarat State Education Board) and NCERT (National Council of Educational Research and Training) to identify Transportation and Mobility concepts in them. The main finding of this study was that as the classes progress, the content on the theme declines. As an outcome of this study, and based on the textbook analyses of Gujarat Board, NCERT and Maharashtra Board, a draft paper titled ‘Schools and Sustainable Urban Mobility: An Approach Paper with special reference to textbook analysis’ has been developed. The project was supported by SUM NET India (Sustainable Urban Mobility Network in India).

7.4 Digitisation of CEE’s and other EE Resources

CMU team compiled information from 186 publications brought out by CEE as part of the

Environmental Orientation to School Education project for the Bharatavani Project being facilitated by the Central Institute of Indian Languages, Mysuru. The project theme for this year was Environmental Sciences.

Industry Initiatives



8.1 CEE Climate Change Group

The Climate Change Group seeks to engage decision makers, support vulnerable communities and empower interested stakeholders to build a low-carbon, climate-resilient society and sustainable living through the following objectives.

- Facilitate exchange of dialogue with multi-disciplinary decision makers for climate action
- Provide knowledge and skills to vulnerable communities - in particular youth, women and marginalised groups - for quality life including climate resilience
- Identify relevant innovative solutions through stakeholder inclusion by diversifying their knowledge base and instilling capacities to sustain sustainability efforts
- Encourage sustainable lifestyles by providing and educating about responsible alternatives which increase individual Handprint

8.1 Climate Change Projects and Programmes 2016-17

8.1.1 Certificate Course in Climate Change

A two months in-depth Certificate Course in Climate Change was conducted for the Science Communicators of the Science Express Climate Action Special during mid June to mid August 2016. The aim of the course was to empower the participants who come from different academic backgrounds to take climate action by enhancing their knowledge on the science, impacts and solutions related to the complex issues of climate change. Employing a variety of hands-on pedagogy, the course deepened

the science communicators' knowledge about mitigation and adaptation solutions, international climate policy and personal action (Handprint). The course helped develop skills in critical thinking, systems thinking, problem solving, decision making and communication through learner-centered approaches for collaborative and participatory learning, in the class room, in groups and on excursions. Twenty two participants completed the course successfully.

8.1.2 Informing the Indo-German Solar Partnership

The Heinrich-Boell Stiftung supported project "Informing the Indo-German Solar Partnership" seeks to provide Indian and German decision makers with first hand information to inform the planning and implementation processes of the Indo-German Solar Energy Partnership, according to the needs of Indian stakeholders. To achieve this objective, five stakeholder consultations were held in partnership with Gujarat Energy Research & Management Institute (GERMI), in urban and rural settings, to gather insights into the interests of various stakeholders like farmers, NGOs, think tanks, businesses, consultants and local policy makers. The consultations aimed to seek inputs on the challenges, gaps and learnings from different experiences across the country in fostering the use of solar energy. This bottom-up consultative approach can help in bridging the gap between policy formulation and implementation and build momentum for the adoption of solar energy systems, informing the Indo-German bilateral solar cooperation.

8.1.3 Science Express Climate Action Special - Phase 2

The Wildlife Institute of India entrusted CEE with the responsibility to carry out the required upgrades of the Science Express Climate Action Special (SECAS) exhibition for its second phase. CEE updated the information according to the recent scientific findings and the policy developments of the Paris Agreement of the UNFCCC. CEE had designed the climate change exhibition for the first round of SECAS.

CEE also trained the new batch of Science Communicators for the Vikram A. Sarabhai Community Science Centre. The Climate Change Group of CEE introduced the communicators to the SECAS climate exhibition and trained them in the scientific, technical, socio-economic and political backgrounds of the exhibition displays. The Science Express was flagged off from Delhi on February 17, 2017 for its second run across India until September 2017. In the current phase, SECAS II will travel over 19,000 km across the country, halting at 68 locations in 20 states.

8.1.4 Action for Climate Empowerment at UNFCCC

As an observer in the official climate change negotiations, CEE's has contributed to Article 6 of the Convention: 'Education, Training and Public Awareness/Action for Climate Empowerment (ACE)'. In the current year, CEE participated in the fourth Dialogues on Action for Climate Empowerment held in Bonn, Germany in 2016 and shared some of the examples of climate change education and public awareness programmes in India. The programmes of CEE highlighted during the Dialogues include (a) *Paryavaran Mitra* (Friends of Environment), a climate change education programme which reaches out to

200,000 schools and (b) the Science Express Climate Action Special (SECAS), a mobile exhibition on climate change on a train visited by 2.3 million visitors. At COP 22 in Morocco, CEE organised and participated in side events at the Indian Pavilion on low carbon development, climate change education and sustainable lifestyles and equity.

8.1.5 COY 12

The youth NGOs network called YOUNGO, which represents children and youth at the official UN climate change negotiations, organises a Conference of Youth (COY) every year prior to the Conference of Parties (COP), with the aim of engaging youth in the discourse on climate change. To enable greater participation of youth, enhance understanding on climate change among youth and enable inclusion of diverse perspectives, local COYs are held in different cities across the world. CEE and the Indian Youth Climate Network, with support from Heinrich Boell Stiftung, organised a three day event for the local COY 12 in November 2016 in Ahmedabad, the for South Asian participants. The key outcome of COY 12 was the 120 participants' policy brief which provided inputs to COP 22 in Marrakesh.

8.1.6 Climate Change – Everybody's Business

The course on 'Climate Action: Everybody's Business' was offered by CEE during December 12- 17, 2016, as a part of Ahmedabad University's initiative of Independent Study Period. This one week course was offered to 50 undergraduate students with backgrounds in science, commerce and management. The course facilitated independent learning on climate change science and solutions, during which participants explored the multi-

disciplinary subject of climate change from various angles and gained skills and competencies for future studies in climate change.

8.1.7 Climate Change Workshop at the International Conference on ESD for transforming education for Children and Youth

The Climate Change Group led the Workshop titled “Sustainable Consumption & Production and Climate Change Education” in this conference. The workshop discussed the crucial role of Climate Change Education for Sustainable Development (CCESD) in filling in the knowledge gap, enhancing awareness about climate change and bringing about behaviour and attitude change. This workshop hosted a discourse on CCESD as an enabler for the transformation to sustainable consumption and production patterns and identification of good practices for integrating CCESD in formal and non-formal settings, with a view to empowering children and youth to take action. It was attended by about 60 international and Indian participants.

8.1.8 UNESCO Global Education Monitoring Report

CEE prepared a background paper for the 2016 Global Education Monitoring report, ‘Education for People and Planet: Creating Sustainable Futures for All’. The UNESCO report highlighted the inter-sectoral relationships between education and development sectors and emphasised the integral role of education as an enabler in achieving the Sustainable Development Goals.

The paper titled “The Leapfrogging Opportunity – Role of Education in Sustainable Development and Climate Change

Mitigation” identified 21 case studies highlighting the role of education in mitigating greenhouse gas emissions from three sectors – transport, energy and agriculture - in developing countries. The case studies showed how the initiatives could enable the countries to leapfrog the faulty carbon intensive processes and opt for a low carbon development path.

Paper available on: http://unesdoc.unesco.org/ulis/cgi-bin/ulis.pl?catno=245615&set=0057F2D764_0_272&gp=&lin=1&ll=1

8.1.9 Climate Change Narratives

CEE conducted three workshops on the perceptions of different communication narratives on the topic of climate change with university students in Ahmedabad on January 10, 11 and 12, 2017. The three workshops, organised by Climate Action Network, Delhi, were part of a Climate Change Narratives seminar with Mr. George Marshall from the Oxford-based Climate Outreach and Information Network. The seminar trained Indian organisations in the skills for developing distinct climate narratives which address different audiences, values and cultural identities. A member of CEE’s Climate Change Group participated in the seminar and conducted the three workshops in Ahmedabad. The workshop results became part of an overall climate change narrative report of the seminar. It was the first of its kind seminar and study in India.

8.1.10 Lecture Series on Oceans and Climate Change

A lecture series on oceanography and the role of oceans in and for climate change was conducted by CEE in early 2017. Dr. Sarin

from Physical Research Laboratory, Ahmedabad, conducted the series of lectures for CEE employees. A lab visit was organised as part of this to understand the radiocarbon dating measurements conducted on ocean sediments as part of climate change research.

8.2 Earth Care Awards

The Earth Care Awards, started in year 2007, entered into its seventh edition this year. The awards recognise excellence in climate change action and covers both mitigation and adaptation sectors. As part of the process, CEE evaluated 265 applications (Table 1) from categories like industry, community, urban and innovation. The applications were received from across India and countries in the SAARC region. The cases on climate change were assessed on climate change mitigation and adaptation aspects and were further evaluated on the basis of their impact, adherence to benchmark and sustainability aspects. Further, an evaluation team visited the shortlisted applicants for completing site level evaluation, and the findings were presented to the jury. The awardees were

felicitated with the Earth Care Award in an event where their efforts were showcased and presented.

8.3 Industrial Pollution Prevention (IPP) Group

IPP group is actively involved in increasing the level of awareness among and the development of skills in different stakeholders, which include industrial associations, individual industries, common environmental infrastructure facility operators (like Treatment Storage Disposal Facility (TSDF), Common Effluent Treatment Plant (CETP), Common Bio Medical Waste Treatment Facility (CBMWTF), Common Hazardous Waste Incineration Facility (CHWI), E Waste recyclers, Construction and Demolition Waste (C&D Waste) recyclers), regulators such as local bodies, State Pollution Control Boards, policy makers such as representatives of the Department of Environment of state governments, students, researchers, Research and Development (R&D) technical institutes, builders, NGOs, auditors and consultants. IPP operates through knowledge transfer,

Table 1

<i>Category</i>	<i>Applications Received</i>	<i>Applications Shortlisted</i>	<i>Field Visits Conducted</i>	<i>Given Award</i>
Leadership in Urban Climate Action	71	8	8	2
Community	74	5	4	2
Innovation for Climate Protection	102	3	3	1
Large Scale Enterprises	18	3	3	0
<i>Total</i>	265	19	18	5

Programmes Organised in 2016-17 for Awareness and Capacity Building

<i>Sr No</i>	<i>Programmes</i>	<i>Date</i>	<i>Partners</i>	<i>Participants</i>
1	SGP Meet : PoPs and Waste Management	March 15-17, 2017	MoEFCC, UNDP, GEF, CEE	20
2	Promoting market transformation for energy efficiency in Indian MSMEs - Surat Textile Cluster UNIDO	February 14, 2017	CEE, SGTPA, TERI, MSME, EESL,GEF	80
3	National Productivity Week - 2017, Waste to Profit through 3R	February 13, 2017	CEE and NPC Gandhinagar	20
4	Workshop and Multi-stakeholder Consultation on "Measures for improved compliance for environmental regulation and sustainable industrial production"	February 7, 2017	CEE, SGTPA, GPCB	70
5	Wetskills 2017	January 2-13, 2017	CEE, GPCB, Wetskills Foundation - Netherlands	30
6	Workshop on aspects of Water Pollution	September 30, 2016	CEE, LDCE	50
7	Regulatory Changes to Counter Climate Change	July 30, 2016	CEE, CII - Surat Chapter	150
8	Workshop on Hazardous Waste Management	June 17, 2016	CEE, GPCB and NEERI	210
9	National Level Environmental Conclave (EnCon'16),	April 22, 2016	PDPU	—
			<i>Total</i>	630

organising training programmes, R & D for waste utilisation, and promoting sustainable industrial development with a view to improving the quality of the environment through continual compliance. The major programmes and projects undertaken by IPP are given below.

Training Programmes: Several training programmes were conducted by the IPP Group, the partners for which were: National Environmental Engineering Research Institute (NEERI), Gujarat Pollution Control Board (GPCB), Gujarat Cleaner Production Centre (GCPC), LD College of Engineering (LDCE) Ahmedabad, Wetskills Foundation, Confederation of Indian Industries (CII),



Workshop on Hazardous Waste Management: Waste to Wealth - June 2016, jointly organised by NEERI, GPCB and CEE on June 17, 2016 at CEE Ahmedabad

Industrial Associations, Common Facility Operators, The Energy Research Institute (TERI).

Technical Advisory: was provided to National Green Tribunal (NGT), CETP of Pandesara, South Gujarat Textile Producers Association (SGTPA), Green Environment Services Co-operative Society Limited (GESCSL).

Policy Advisory: was provided to enforcing agencies like GPCB, GCPC, LDCE (BREF Document for textile sector) and NGT.

Research and Development (R&D): R&D services were provided to waste utilisation centres with GESCSL and SGTPA; and for pre-processing facility, caustic recovery, and product recovery from waste with LDCE.



Workshop on Regulatory change to Counter Climate Change jointly organised by CEE and CII at Surat on July 30, 2016

Mr. J. K Vyas of IPP also attended several programmes as an expert and/or delivered expert lectures during 2016-17.

<i>Sr No</i>	<i>Programmes</i>	<i>Organiser(s)</i>	<i>Time and Venue</i>
1	Advanced Pre-Launch Consultation on Draft Ahmedabad Air Information & Response (AIR) Plan and Air Quality Index (AQI)	Ahmedabad Municipal Corporation (AMC); Indian Institute of Tropical Meteorology, Pune (IITM); Indian Institute of Public Health Gandhinagar (IIPH-G); Health Gandhinagar Natural Resources Defense Council (NRDC); Safar Air	February 20, 2017, Hall Usmanpura AMC Conference
2	National Level Environmental Conclave	PDPU	April 22-23, 2016, Department of Civil Engineering, Pandit Deendayal Petroleum University
3	Air Pollution and Health: Laying the Foundation for Effective Use of the Ahmedabad Air Quality Index	Ahmedabad Municipal Corporation (AMC); Indian Institute of Tropical Meteorology, Pune (IITM); Indian Institute of Public Health Gandhinagar (IIPH-G); Natural Resources Defense Council (NRDC); Safar Air	December 13-14, 2016 at Hyatt Regency, Ashram Road, Usmanpura, Ahmedabad
4	Workshop on Improved Mercury Management in India	UNDP, MoEFCC	August 10, 2016 at The Taj Mahal Hotel, New Delhi
5	7 th National Conference on Urban, Biomedical & Industrial Waste Management	GPCB, Saket Projects Limited	August 5-6, 2016, Auditorium, Ahmedabad Management Association
6	Round Table on Best Available Technology Reference Documentation	GPCB,GIZ	December 3, 2016, Wastech 2016, Mahatma Mandir, Gandhinagar
7	Industry vs Waste: Round Table Discussion during India Environment Festival	World Around You (WAY), CEE	February 24-26, 2017, Ahmedabad Haat, Vastrapur

IPP has so far conducted capacity building programmes based on Industrial Waste Water Treatment, Air Pollution Control, Hazardous Waste Management and Cleaner Production for more than 600 industries, during April 2016 to March 2017.

9. MOU/MOA Signed in 2016-17

Sr. No	Agencies	Thematic areas	Date	Target Group	Status
1	GPCB	Training & Capacity Building	January 30, 2017	Industries, industrial associations, common facility operators, regulators, students, researchers, faculties, NGO, auditors, consultants	Two forthcoming programmes in April and November/December 2017
2	GPCB and Wetskills Foundation	Skill Development & Capacity Building	January 12, during VGGS 2017	Students and Young Professionals of India and Netherlands	November-December 2018
3	PIL	CETP Upgradation	September 19, 2016	Industries, industrial associations, common facility operators, regulators	Q I completed and Quarterly report submitted
4	PIL	Utilisation of Hazardous Waste	September 19, 2016	Industries, industrial associations, common facility Operators, regulators	Q I completed and Quarterly report submitted
5	PIL	Sustainable Textile Production	September 19, 2016	Industries, industrial associations, common facility operators, regulators	Q I completed and Quarterly report submitted
6	SGTPA	Measures for Improved Compliance	September 19, 2016	Industries, industrial associations, common facility operators, regulators	Q I completed and Quarterly report submitted
7	GSFCU	Training , awareness and capacity building of the GSFCU students and GSFC employees	May 2, 2016	Industries, industrial associations, common facility operators, regulators, students, researchers, faculties, NGO, auditors, consultants	Programmes to be initiated

8.3.1 Some Major Programmes of IPP

GPCB and CEE: signed an MoU on January 30, 2017, under the Vibrant Gujarat Summit 2017, to encourage, facilitate, collaborate, transfer technology and partner towards the promotion and development of best practices with an aim to (1) adopt the concept of 4R - Reduce, Reuse, Recycle and Recover Resources; (2) transfer technology; (3) build capacity and develop skills of the stakeholders through various programmes; (4) share best environment management practices in the state of Gujarat; (5) implement the concept of circular economy and sustainable industrial development in different sectors; and (6) organise other programmes related to environmental pollution prevention and control.

The goal of this co-operation is to foster collaboration; provide opportunity for exposure to the state of the art facilities available to the personnel of both the



MoU signed with GPCB and CEE for organising awareness programmes, in the presence of Mr. Arvind Agarwal, IAS Additional Chief Secretary, F&ED, Government of Gujarat and Chairman GPCB, and Mr. K C Mistry, Member Secretary, GPCB

organizations; networking of the two institutes in the areas of the mutual benefit; and frequent interactions.

IPP Group and Pandesara Infrastructure Limited (PIL): which is a common effluent treatment facility located at Pandesara, Surat, have agreed to work together for performance evaluation and upgradation of the CETP at Pandesara, sustainable textile production and R&D in the field of utilisation of hazardous waste as building material at GIDC Pandesara for improved compliance of environmental legislations and betterment of the quality of environment. Three MoAs were signed on September 19, 2016 in this regard.

After site visits and observation of the CETP and textile processing units at GIDC Pandesara, the recommendations of IPP were sent to PIL along with a detailed project report. The analysis reports of the effluent indicate improvement in the quality of the treated effluent.

For sustainable production in textile units, the data related to a textile unit was obtained during site visits and a report sent to the unit



Site Visit at CETP Pandesara, Surat for CETP upgradation project



Site visit to explore ways for sustainable textile production at GIDC Pandesara, Surat

indicating all aspects of reuse and recycling of the treated waste water. This helped reduce the huge quantity of fresh water consumption and improve the quality of treated effluent as bore well water consumption with high TDS is reduced. Reuse and recycling of effluent has further reduced power consumption of the unit thus reducing the cost of treatment without affecting the quality of the product.

Workshop and Multistakeholder's Consultation: on "Measures for improved compliance for environmental regulations and sustainable industrial production" was organised on February 7, 2017, wherein about 80 members of the SGTPA were briefed about the provisions of various acts/rules and the procedure to be followed for their compliance.

Waste Utilisation: PIL generates approximately 1000 MT sludge monthly and this has to be disposed of as per the statute. In the absence of a TSDF site in Surat and nearby areas, this sludge has to be disposed of in Kutch, the cost of which is high. It is believed that the manufacturing of bricks from this sludge will be immensely beneficial to PIL.

IPP Group carried out an extensive literature survey for this project including theoretical and practical experiments carried out by researchers in India and abroad.

Detailed discussions were also held with experts in the field about the use of various combinations of sludge and other raw materials which were prepared to determine the quality of blocks and bricks, their compressive strength, water absorption ratio, density and leaching characteristics along with their moisture movement.

This subject was also discussed at length with the technical representatives of NCCBM - Ahmedabad and eminent professors of the Civil Engineering department of L D Engineering College, which included issues like raw materials, capacities of block/bricks manufacturing machines, furnaces and product quality.

The financial appraisal reveals that this project is economically viable and the payback period is less than five years. The trial runs for manufacturing of Hazardous Waste Bricks and Pavers containing CETP sludge have been conducted and the process is ongoing.



Trial run for manufacturing of bricks containing CETP Sludge

Sustainable Rural Development



9.1 Hingolgadh Eco-Development Programme (HEDPRO) – GramNidhi

CEE's Jasdan Field Office works closely with 55 active self help groups (SHGs) who have been strengthened and capacity built through a variety of programmes undertaken in Jasdan villages over the years. About 20 Field Farmer Schools set up by ATMA (Agricultural Technology Management Agency) and 18 Farmers Clubs set up by NABARD are also functioning in these villages. All these Village Level Institutions (VLIs) are involved in sustainable/organic agriculture, value addition to products, marketing of products, promoting new crop varieties and encouraging horticulture. The women SHG members participated in eight fairs during the year. They have developed around 52 different products worth Rs. 40 lakh or more. They continue to supply farm-based and non-farm based wild products in both retail and wholesale forms. A campaign to encourage farmers to adopt planting of drumstick trees was conducted, for which CEE Jasdan team organized four farmers' meetings and one consultation. This led to a sale of two lakh saplings, and 700 farmers planted the drumstick saplings in over 1000 bighas of land. CEE provides the market linkage to this initiative. Over 150 farmers were supported in the online application process for taking advantage of government schemes, for which application camps were organised in the village. Every month products around Rs. 1 lakh are sold in the farmers' mall. This year, the farmers earned around Rs. 14 lakh through this product sale. The products sold include organic fertilizer, seeds, medicines, tools and equipment. During the year, the certification process for organic farming was carried out. About 130 farmers joined the certification agency, who purchased the farm produce from them during this period.

9.2 Gramshilpi

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

The programme aims to provide extensive capacity building inputs and initial financial support to selected students of Gujarat Vidyapith to work towards holistic rural development. As of now, 45 Gramshilpis have taken up the cause of rural development and, out of them, 10 have settled down in villages undertaking various activities. Gramshilpis are paid a monthly stipend for their personal and programmatic needs during the initial two years.

In the year 2015-16, two post graduates were selected for the project as Gramshilpis, 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 to work in. Their capacity building and need based training covered content like primary education, elements of earth, and a methodology and skill module. Two of the Gramshilpis from the current batch are now associated with this project.

This year too, Gramshilpi have been trained and facilitated for their motivation and support. One of the Gramshilpis, Jaldip Thakar, has been awarded with "Mahadev Desai Gramseva Award" by Gujarat Vidyapith, Amedabad, for his commitment to the people of his village.

The major thrust areas of the Gramshilpi's activities are education, health, sustainable natural resource management, promoting social equity and entrepreneurship support. In their adopted village, the Gramshilpi plays a role akin to a mobile information centre. They have become a guide for the villages in matters pertaining to education, career, administrative procedures for villagers to get their lawful entitlements and other rights. They also provide the villages with updates regarding various rural developmental and agriculture schemes. Apart from this, those who have settled in remote tribal areas are working towards conserving tribal culture and practices. They also support migratory families by running residential facilities for their children and providing better education. Last year, more than 200 children were provided such facility in the tribal area of Gujarat by Gramshilpi Mukhtukhan Sukh, Nilam Patel, Gautam Chudhary, Ashok Chaudhary and Ghanshyam Rana.

9.3 Jalsetu - Empowering Women Elected Representatives for Water Governance and Climate Change

CEE initiated the project 'Jalsetu' with the support of Hans Seidel Foundation (HSS) in February 2016. The three year project is aimed at working together with the Women Elected Representatives (WERs) and other Village Level Institutions in 10 villages of Jasdan and Halvad blocks of Gujarat. In its first year, the focus was on improving awareness and knowledge about water and climate change, and demonstrating technology and practice for sustainable and long-term building of the capacity of the communities in these villages. The project activities have been planned based on a village perspective plan developed through facilitated consultative and

participatory processes by the VLIs and PRI (Panchayati Raj Institution) members.

The annual cycle for the project is from January to December. The 2016 activities began with consultative meetings with different stakeholders, an introduction to the objectives of the project, and the signing of MoUs with the 10 village panchayats. During the year, a range of programmes were conducted with women SHG leaders, PRI members and Elected Women Representatives. This included field level project launch events, baseline data collection, training for WERs, exposure visits for the community members, and technology demonstrations.

Technology Demonstrations

The project, along with creating awareness, also aims to demonstrate technologies that can help in addressing water issues at the local level. Technology demonstrations such as grey water recycling and kitchen garden, pond deepening, solar water pump, solar water cooler, recycling of used water for flushing of toilets, animal shelter with automated drinking water facility and fogger for temperature control, and dykes in the river for water recharge were set up in the two blocks. In another interesting technology demonstration and awareness programme, school children made about 400 small pits and planted saplings on the edges of the campus boundary. This is expected to prevent flooding of the school compound and at the same time enhance moisture retention in the soil.

Awareness Programmes

A range of awareness programmes were conducted with schools and the community, which included a water camp for school children, water quality testing at the community level, and a water exhibition. Games and folk media, quality testing and hands-on activities provided the background to discuss issues of water quality alongwith

sharing conservation messages and laying stress on efficient use of water.

Panel Discussion on Water Governance

This discussion was organised at CEE on ——— with the participation of national and international water experts. Dr. Martin Grambow, Head of Water Management and Soil Conservation Department, Bavarian State Ministry of Environment & Consumer Protection, Germany, was the key speaker at the event. About 45 participants from various NGOs, local village leaders, water experts and PRI members from the project villages participated in this discussion.

Capacity Building and Training

The capacity building efforts at the local level helped in enhancing the capacity of elected women representatives, VLI leaders and village youth towards planning, implementing and monitoring water conservation projects at the local level. These included exposure tours for the stakeholders to see water conservation efforts in Kachchh and Rajasthan; training for WERs on governance, climate change and water issues; and training for youth (traditional water diviners) to act as 'Jaldoots' who understand the hydro-geology of the region and can plan for water conservation accordingly. Through this 'Jaldoot' training, a cadre of 20 youth in each of the project blocks have been empowered to plan and facilitate water conservation activities, including developing small water conservation structures in the villages.

The Outcome/Results Achieved

1. All stakeholders agree that water issues should be a priority of the PRI. The issue is also becoming central to local panchayat elections.

2. Women Elected Representatives participate actively in the panchayat elections: one of them got elected as a Sarpanch. Such coming forward of active women village leaders in panchayat elections will have a long-term positive impact on water security. It also shows that active women leaders in the VLIs have the potential to be active PRI members in the future.
3. The synergy between VLIs and PRI members has improved.
4. Exposure tours are a major influence in the adoption of technologies and sustainable practices. There has been an increase in community and individual contributions towards setting up systems at the community and household levels.
5. Involving water diviners in the process proved to be an innovative and useful strategy. About 20 water diviners are part of the project supporting the water harvesting initiatives.
6. While the general approach to water related work so far has been to create new structures, this project also convinces the community that reviving existing old water structures can be an efficient way to harvest water and improve water security for the community.
7. Technology demonstrations at CEE's Rural Knowledge Centre in Halvad have inspired others to accept such technology. For example, demonstration of the solar motor has resulted in about 1500 solar motor pumps in the block.

The 2017 Cycle of the Jalsetu Project

Between January and March 2017, 10 more project villages were added to the project area. Based on the learnings from the first year, the activities have been further refined, especially

in the areas of: choice of technology demonstrations, capacity building programmes to enhance teams' and community members' capacity in water resources mapping, and developing the water resources management plans at the local level.

Visit by the Bavarian State Minister, Ms. Ulrike Scharf to CEE Campus

The Hon'ble Minister, Ms. Ulrike Scharf and a team of delegates from Bavaria and the Hans Seidel Foundation visited CEE on March 27, 2017, as a part of their visit to India to oversee programmes conducted under India-Germany partnership. During the brief visit, CEE shared details of its programmes, especially the activities under the Jalsetu project.

9.4 Prakruti Shala – School for Sustainability

The project Prakruti Shala – Schools for Sustainability, initiated in September 2016, is the beginning of a partnership between Finar Foundation, the CSR arm of Finar Ltd., and CEE. Prakruti Shala initiated activities in five schools in Sanand taluka of Ahmedabad District.

The Schools for Sustainability project aims to build capacity of rural primary schools towards becoming green campuses that provide quality education to students along with lessons for lifelong learning on sustainability.

The three major thrust areas of the project are:

- (a) Health, Nutrition and Biodiversity
- (b) Water and Sanitation
- (c) Quality Education

During the year, activities such as exhibitions, competitions, and nature tours were conducted in all five schools to create awareness among children regarding water, health and biodiversity.

A variety of indigenous medicinal and other plants were introduced in the school campuses with the aim to create a small medicinal and nutrition garden in each school. An Eco-colours campaign was conducted in all five schools and children were taught to make herbal colours. A detailed survey of water and sanitation status of the schools has also been conducted to plan augmentation of the water and sanitation facility.

As an exercise to increase awareness about local biodiversity, especially on their own campuses, students, teachers and CEE personnel jointly conducted a participatory survey of the school campus, along with discussion on the species and their medicinal value. Through this, various botanical concepts that are dealt in the textbooks were also practically shown on the campus. Thus the process also became a demonstration for the teachers about how to use the campus as a learning resource. Further, as part of the project, a 'Prakruti Shala Resource Corner' is being developed in each school.

9.5 Humanitarian Engineering Design Summit Programme – CEE and Engineers Without Borders (EWB), Australia

The Humanitarian Engineering Design Summit programme for Engineers Without Borders (EWB) is an educational study programme designed to provide students with exposure work experience while allowing them to develop a deeper understanding of the role design and technology plays in creating positive change within communities. A key component of the learning experience is ensuring that students participate in a genuine, immersive and mutually beneficial rural experience with a community. To deliver the programme, EWB partners worked closely

with local organisations that have a working relationship with grassroots communities.

Objectives

- Participants take part in a rural Indian experience and connect with the community members.
- Participants have the opportunity to learn about village life through interviews and semi-structured activities.
- Participants generate ideas for the design of an appropriate technology intervention for an articulated design opportunity identified by the community (with collaboration and support between CEE, EWB and Giant Grass).
- Participants design and/or construct a prototype of the appropriate technology intervention in collaboration with Giant Grass and identified lead community organisations.

The philosophy of the Humanitarian Engineering Design Summit programme is based on a community centred approach, using engineering knowledge and resources to bridge self-identified gaps in access to community health, wellbeing and opportunity. The programme is focused on sustained engagement to build strong relationships and best practice models, strategically deploying people to achieve long-term impact through knowledge sharing and sector building. The overarching vision for the International Programme is for everyone to have access to the services they need to lead a life of opportunity, free from poverty.

The tools used for this purpose range from local seminars, workshops and home stay; understanding local socio-economic and environmental context; interaction with local

community, artisans, individuals; developing design ideas and prototypes; and presentation to the local community. A Humanitarian Design Summit involves the careful selection of self-identified Australian University students through a competitive application process. The total group size is 47 participants plus three EWB facilitators, three EWB mentors, three academic fellows from Australian universities and two corporate mentors from leading Australian engineering firms. The programme is of 14 days duration covering workshops, cultural training, six day community immersion and prototyping workshops, concluding with final presentations and debrief discussions.

It is anticipated that during the course of the journey, the participants will develop a better understanding of the daily life, routines and challenges faced by rural communities in India and the circumstances under which they live. It is envisaged that the participants develop skills, knowledge, attitudes and cultural competencies to further their professional development through experience in a development context.

The Humanitarian Engineering Design Summit has a special focus on partnering with universities that aim to enhance the student learning experience with exposure in humanitarian engineering. Additionally, the programme aims to enhance the exposure through the generation and exchange of ideas and partnerships with similar development organisations in India.

The Humanitarian Engineering Design Summit India 2016 was planned and implemented in partnership with CEE where CEE facilitated the learning experience for the students at Halvad and Jasdan field offices of CEE. It was organised during December 5-18, 2016, with 47 students along with 11 facilitators.

The designs developed by the participants include a toilet, an underground rainwater harvesting tank, agricultural tools, structures for composting and others, based on their community consultations and understanding of the local context. Prototypes of the structures were developed and presented to the facilitating team and the community.

9.6 Environmental Management Framework for Tamil Nadu Empowerment and Poverty Reduction Project (EMF for TNEPRP)

The Tamil Nadu Empowerment and Poverty Reduction Project (TNEPRP), also called *Pudhu Vaazhvu*, is implemented by the Rural Development & Panchayati Raj Department of the Government of Tamil Nadu. This project is supported by the World Bank. A key objective of the project is to support employment generation and livelihoods improvement for the poorest sections of the population. The project reached 4170 village Panchayats in 120 backward blocks in 26 districts. About 60-

65 % of livelihood activities in *Pudhu Vaazhvu* are Natural Resource (NR) based.

Being an initiative supported by the World Bank, the TNEPRP is required to have an Environmental Management Framework (EMF). CEE serves as the State Environmental Resource Agency (SERA) to assist the *Pudhu Vaazhvu* Project State Society in the successful implementation of the Environmental Management Framework (EMF) in the project. *“The purpose of Environmental Management Framework (EMF) is to ensure that neither the livelihood of the poor nor the environment is compromised.”*

SERA has facilitated the implementation of EMF through Environmental Monitoring, Material Development and Capacity Building.

Regular and structured capacity building of the project staff and community on environmental management is a part of the EMF implementation. CEE Tamil Nadu has facilitated the capacity building programme on EMF for the Project Officials and Field Functionaries of TNEPRP during 2017.

The three level (state, regional and village) training was conducted thus:

Level		TNRTP Staff		Duration	No of trainings	No of staff trained
I	State	Project Officials	District Project Managers	1 day	1	25
II	Regional		Assistant Project Managers	1 day	5	157
III	Village	Field Facilitation	Project Facilitation Teams	2 days	25	909
			Green Community Professionals			

The mode of training included classroom sessions, group work and field visits.

9.7 Environmental and Social Management Framework for Tamil Nadu Rural Transformation Project (ESMF for TNRTP)

The Tamil Nadu Rural Transformation Project (TNRTP), supported by the World Bank, aims to support project outcomes of the Tamil Nadu state's Vision 2030 and leverage opportunities for rural transformation. The project coverage is 26 districts, specifically focusing on 120 blocks and 3994 village Panchayats of Tamil Nadu

As per the requirement of the World Bank, an Environmental Assessment (EA) study of the project was undertaken by the Rural Development & Panchayathi Raj Department with the support of CEE Tamil Nadu. The objective of the study was to understand the environmental implications of project activities; to define remedial measures to mitigate any negative impacts; and to understand the compliance requirements with the national and state legal and regulatory framework and the World Bank Operational Policies. The EA has identified (i) applicable legal and regulatory (compliance) requirements to the project interventions, and (ii) the possible environmental implications of the interventions and activities proposed under the project.

Based on the Environment Assessment study, an Environment and Social Management Framework (ESMF) is prepared for the project, whose objective is to 'ensure environmental sustainability of enterprises and value chain interventions proposed under TNRTP'.

The methodology adopted to conduct the EA and develop the ESMF included secondary

data collection and review; review of legal and regulatory systems; field visits and meetings with experts and stakeholder consultation.

CEE Tamil Nadu has conducted the EA study, developed the ESMF, conducted the stakeholder consultation and submitted the report to the World Bank.

10.1 Sustainable Urban Development Activities in Ahmedabad

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

CEE and CEPT University, in cooperation with UNESCO, the Swedish International Centre for Education for Sustainable Development (SWEDES), and ICLEI – Local Governments for Sustainability, have established the UNESCO Chair on Education for Sustainable Development and the Human Habitat in November 2013 at CEE. Kartikeya Sarabhai (Director, CEE) is the Chairholder of the UNESCO Chair.

The UNESCO Chair was established with the aim of integrating the component of sustainable development in all studies dealing with the human habitat and building the capacity of future professionals to address urban sustainability related issues in innovative ways and by making right choices or decisions. Since the establishment of the UNESCO Chair, various courses have been offered to undergraduate and postgraduate students studying architecture, planning, management and design.

“Streets for people” is offered as an elective course with the focus on engaging and working with the community in designing sustainable transportation systems in cities. The course has been able to emphasise the concept of ‘planning for people’ rather than ‘planning for vehicles’. Different pedagogies were used for this course. Till date the course has been conducted five times and is an ongoing programme. Under the chair, various summer and winter schools like Planning for Resilient Cities, Biodiversity in Urban Areas, Designing

with People and Reimagining Main Streets are also been conducted.

In 2016, under the UNESCO Chair, the ‘Streets for People’ course was offered to undergraduate and postgraduate students studying architecture, planning, management and design. Talks and seminars were organised as well as articles written as part of the course. Around 40 postgraduate students Architecture and Planning were selected for the course, which rated 7.6 on avscale of 10 amongst other comparable courses, and is one of the sought after courses in the University.

As part of the course, the group of students conducted detailed studies and designs for four locations in Ahmedabad City:

- Dhal ni Pol - reorganising the street from a historic perspective
- Dilli Darwaja - traffic junction - reorienting the space and reducing traffic congestion
- Akbarnagar Cross roads - busy traffic junction redesigned for reducing traffic congestion
- H L Commerce Six Roads - redesigning and rerouting the cross road

The work was presented to the Traffic Cell headed by Raksha Shakti University.

10.1.2 Global Resilience Partnership

Global Resilience Partnership is an initiative spearheaded by USAID, Rockefeller Foundation and SIDA, in partnership with Mahila Housing Sewa Trust (MHT) for ‘Devising local coping mechanisms and adaptation technologies to build climate-resilience capacities of urban poor in South Asia’. The project focuses on building the capacities of the urban poor women across seven cities of South Asia: Ahmedabad,

Bhopal, Bhubaneswar, Jaipur, Ranchi, Dhaka and Kathmandu.

The project aims to develop women's cadres from the slums, equip the urban poor with the tools and know-how to undertake vulnerability and risk assessments, and implement their own resilience plans. The project works with women from 100 slums in the project cities.

CEE is involved in guiding the development of communication approaches, assisting in the preparation of training manuals and developing training modules for conducting community based resilience plans. CEE also participated in and supported the trainings and assessments in Ahmedabad. Apart from this, in Bhubaneswar, CEE is involved in the monitoring and evaluation of project activities in the city implemented by two local NGO partners. CEE is preparing a project film documenting the process of how a bottom-up approach can help in building the resilience of a community.

10.1.3 Traffic Cell

Traffic Cell, headed by the Director General of Raksha Shakti University, was created in 2016 to provide a platform for various experts from the fields related to traffic management to study specific traffic issues in the city and provide solutions. CEE, as part of the Traffic Cell, has been actively participating and providing inputs to its work which includes preparation of a Smart Vehicle Stack (Automatic Parking System) by students and faculty of Bardoli University.

In addition to this, CEE is actively involved in the junction design and traffic control for HL Commerce Six Roads and Dilli Darwaja. The initial redesigning and rerouting of traffic has been created under the UNESCO Chair.

Currently the trial runs for these two junctions are being planned to be conducted by CEE in collaboration with Traffic Cell and other stakeholders.

10.1.4 State of the World: Can a City be Sustainable?

CEE brought out the Indian Edition of the State of the World Report, 2016: "Can a City be Sustainable?"

The State of the World (SOW) Book Series is produced by the World Watch Institute.

The State of the World report "Can a City be Sustainable?" presents the core principles of sustainable urbanism addressing Climate Change, and profiles some cities that are putting these principles into practice. It presents a story of possibilities, provides material for contemplation on what really matters, and suggests the way forward for creating a more liveable and sustainable world. Efforts of various international networks and local governments working on global challenges are presented in the report. Shri Kartikeya V. Sarabhai, Director, CEE; and Ms. Madhavi Joshi and Ms. Sanskriti Menon, Programme Directors, CEE, have contributed a case on Ahmedabad and Pune in the SOW 2016.

As part of introducing the book to various audiences, a series of four panel discussions was conducted as follows.

- Ahmedabad at CEE - January 2017
- Bhopal at Palash Residency - January 2017, in partnership with Mahila Housing Sewa Trust (MHT)
- Patna at Disaster Management Institute - March 2017
- Chennai at IIT Madras - March 2017

The panelists included practitioners, decision makers and researchers from academic, government and non government organisations.

Followed by this, CEE, in partnership with INI Design Studio, will be conducting book introduction and panel discussions in five cities, viz., Ahmedabad, Bengaluru, Mumbai, Delhi and Pune. Along with “Can a City be Sustainable?”, “Designing for Modern India”, a book by INI Design Studio, will also be introduced. In this volume, the design practitioners at INI Design Studio present their vision for creating unique, sustainable solutions to address the needs of a growing society. Discussion on the theme: “Sustainability, Built Environment and Cities: the Way Forward” would be organised in these cities where eminent experts in the urban sector would be invited to speak on the topic. The first of this series was held in Ahmedabad on March 17, 2017 at CEE Auditorium.

10.1.5 Cultural Trail in Dhal ni Pol

CEE, in partnership with Mahila Housing Sewa Trust (MHT), has designed and conducted a cultural trail at Dhal ni Pol, emphasising the cultural heritage of the old city of Ahmedabad. This cultural trial was conducted during the World Heritage Week (November 19-25, 2016) where school children participated in a trail to understand the culture and people of the pol, with stories related about the pol being narrated by the local residents.

The cultural trail, which lasted more than two hours, provided the children with a glimpse of the old city, the urban fabric of the city which existed earlier, an experience of the local food prepared by the community residing in the pol, the importance and significance of local trade, and the buildings and stories that have evolved around this part of the city. Signage and panels explaining milestones and important events were placed on the facades of major historic buildings at various locations on the trail.

10.1.6 National Conference of Young Environmentalists on “Smart Cities, Sustainable Cities”

At the request of National Bal Bhavan and in partnership with them, CEE designed and organised a three day National Conference on the theme ‘Smart and Sustainable Cities’ for the Bal Bhavan students. About 120 students and 29 teachers/educators from 13 states of India took part in the conference which was held in Ahmedabad.

The three day deliberations dwelt on the topics of: understanding cities, urban biodiversity, waste management, Swachhagraha, health and nutrition, urban governance, urban transportation, climate change and energy. These topics were facilitated by resource persons from CEE and its partners, and included interactive sessions, slide-shows, activities and field visits. Before coming to the conference, the participating students were asked to prepare a poster on a market in their city and their favourite shopping area. An exhibition of these posters was held during the conference, where students and teachers could interact about the rich diversity of their city with the others. On the third day, in the concluding session, the students presented their project ideas for the activities they would take up in their respective cities based on the learnings from the conference.

10.2 Sustainable Urban Development Activities in Pune

10.2.1 PMC BRTS Promotion and Outreach Programme

The Rainbow Bus Rapid Transit System (BRTS) is a public transport service implemented by the Pune Mahanagar Parivahan Mahamandal Ltd, with the Pune

Municipal Corporation (PMC) and the Pimpri Chinchwad Municipal Corporation (PCMC). PMC commissioned IBI Group and CEE to implement a Promotions and Outreach Programme (POP) for the BRTS in Pune.

The POP aimed to promote the new BRT as well as provide a smooth transition from the existing regular bus services to the BRT system. An External Environment Analysis report was prepared that presented the social, political, institutional contexts of the project at that time. Various outreach materials were developed during the project period for the communication requirements which included films, radio jingles, posters, brochure, flyers, standee, hoardings, banners and PowerPoint presentations.

The BRT system was inaugurated in August 2015. The promotions and outreach work continued till August 2016, with the launch of a second BRT corridor. The activities also included assessment of the post launch impacts and feedback for system improvements. The final reports of the project were submitted to PMC, including a report on shifts in public perceptions about BRT, and various collaterals, brand manual, signage manual, videos and others.



The BRTS corridors in Pune around launch day

10.2 2 Pune Cycle Plan

CEE, along with Innovative Transport Solutions Pvt. Ltd and Prasanna Desai Architects, together as a team, is preparing a Bicycle Master Plan for the Pune Municipal Corporation (PMC). The comprehensive document aims to set the vision and goals for bicycling in the city, and prepare a bicycle network, design guidelines, plans for bicycle parking, integration with public transit systems, a public bicycle scheme, enforcement, public awareness and capacity building, amongst others. CEE's role is to facilitate user surveys and public consultations, and develop inputs for preparing the draft plan. CEE is also developing the plan for the promotion of cycling. Public consultations were conducted in 15 wards of Pune city to seek inputs for the preparation of the draft cycle plan. Focus group discussions were also conducted with various stakeholders such as cyclists, youth, representatives of cycle shops, teachers and others. These inputs along with the findings of various surveys were incorporated in the draft cycle plan. After another round of consultations that is being planned, the inputs will be incorporated in the draft plan which will be submitted to the PMC for placing before the PMC General Body for approval and subsequent legal processes.

10.2.3 Workshop on Street Vendors (Protection and Regulation of Livelihood) Act, 2014

A one day workshop was organised at Yashada, Pune, in March 2017 to discuss the provisions of the scheme for street vending as applicable in Maharashtra, and to understand the situation in various cities in the state with regard to the implementation of the Street Vendors Act. The workshop was organised by



The project management team along with PMC Commissioner Shri Kunal Kumar addressing media about the Pune Cycle Plan and its components

CEE in partnership with Parisar, as members of SUM Net (Sustainable Urban Mobility Network), along with the National Hawkers' Federation. This workshop was a continuation of the dialogues and discussions initiated in early 2016 by SUM Net, CEE and Parisar, which had included (a) a workshop in March 2016 at Pune to discuss the provisions of the Street Vendors Act and the expectations or desirable provisions for the state level legislation, and (b) a follow up meeting in October 2016 at Pune to deliberate on the points that emerged from the March 2016 workshop. Representatives of Pune, Pimpri-Chinchwad, Sangli, Kolhapur, Panvel, Navi Mumbai, Parbhani and Amravati participated in the workshop. A report of the workshop and suggestions for the improvement of the scheme are being submitted to the state government.

10.3 Sustainable Urban Development Activities in West Bengal

10.3.1 Study on Transport Governance Initiative in West Bengal

With growing urbanization and physical expansion of cities, greater and more complex mobility needs is being noticed, along with urban transport projects being increasingly executed through complex public-private partnerships. It has become increasingly important to analyse the current decision making process with regards to urban transport solutions.

To study the same, the World Resources Institute (WRI) and Parisar, Pune, along with CEE, have developed a Transport Governance Initiative (TGI) toolkit to provide a framework for the evaluation of the governance process in urban transport sectors in the cities of Kolkata, Durgapur and Siliguri in West Bengal. The various indicators of transport governance being studied through the project are: planning, executing authority, budgeting, policy, standards and regulations. CEE Kolkata conducted a baseline survey of Kolkata, Durgapur and Siliguri and assessed the indicators to help map key facts about the transport sector and governance at the city level. CEE Kolkata team participated at the WRI India Sustainable Cities, 4th Annual Conference, 'Connect Karo 2016', during April 5-7, 2016, at New Delhi and presented the West Bengal Cities' Assessments on Transport Governance. Subsequently, the responses received for various indicators through the departments were analysed and the final report was compiled and submitted to Parisar for further follow up and consolidation.

10.4 Sustainable Urban Development Activities in Assam

10.4.1 Guwahati Urban Transport Project (GUTPro)

The aim of GUTPro was to do a walkability study of two roads of Guwahati and share the

results with the relevant stakeholders. The study was conducted with the support of Sustainability Urban Mobility Network (SUM Net) India and Shakti Sustainable Energy Foundation.

The project involved the following activities:

- Preparation of the activity module
- Establishment of linkages with institutions whose interns will be involved and orientation of the field team
- Mapping activity of the areas
- Walkability Study
- Photo documentation of problems
- Data entry, analysis and report preparation

The follow up included:

- A seminar to share the results and discuss next steps, and a poster exhibition as part of it
- Letter to municipality and other decision makers
- Media briefs

Selection of locations for study: Two stretches were selected for the study. (i) Guwahati Club – Chandmari stretch of 2 km, as part of the Mani Ram Dewan (MRD) Road, with footpaths on both sides, mixed land use pattern (schools, shops, residential area, offices, etc.); and (ii) Rajgarh Road of 2 km, with footpaths missing on large chunks of the road, mixed land use (public area, shops, residential area, offices, clinic, etc.)

Observation walks: The observation walks were undertaken for the physical assessment of the roads selected for the survey. As a number of manned and unmanned pedestrian crossings were observed during the visit, a study on the crossings was undertaken

separately. Photographic documentation of the stretches was conducted for detailed study of the issues. Students of TISS Guwahati took up the month long walkability study of the roads of Guwahati selected for the project.

Structured Observation Survey of stretches and crossings: Formats were developed for structured observation surveys based mainly on the parameters of the Global Walkability Index (GWI). The scoring system used was a modified form of the assessment score given in GWI.

Pedestrian interviews: These interviews were designed to understand the ease of walkability from a pedestrian's point of view and to understand the obstructions faced by pedestrians which are not related to infrastructure.

Meeting/Seminar: A meeting for sharing the results of the study with the stakeholders was organised. The suggestions from various experts at the culmination meeting was incorporated into the final report and shared with government departments like Guwahati Municipal Corporation, Guwahati Metropolitan Development Authority and others.

Water and Sanitation

11.1 Ecosystem based Campaigns for Rivers

11.1.1 Clean Ganga Programme at Varanasi

Ganga River is considered one of India's holiest rivers, imbued with cultural and spiritual significance. Despite its importance and religious beliefs, the river is facing extreme pollution pressures which are posing a great threat to its biodiversity. To give an impetus to the conservation of Ganga and to recognise it as the country's heritage, the Government of India has declared it as the National River. When it comes to creating awareness about keeping our rivers clean, it is important to realise that it is also about changing people's attitude and enlisting their participation for the same.

National Mission for Clean Ganga has initiated the Ganga Action Plan Project (Varanasi) under the National Ganga Council in Varanasi, with the support of Japan International Cooperation Agency (JICA), with Varanasi Nagar Nigam (VNN) as the implementing agency. Though infrastructural improvement is one aspect of this initiative, the other important aspect is Public Awareness and Public Participation (PAPP). CEE has been invited to take up activities at the Ghat level along with the formation Clean Ganga Clubs in schools and colleges.

Setting up of Project Office: CEE has set up a field office in Varanasi in July 2016 and is conducting activities such as meetings of vendors and stakeholders, identifying entry point activities for making the ghats polythene free, conducting nukkad nataks and demonstrations, and school and college level awareness and action activities.

School Activities: CEE team has completed the selection and enrollment of 50 schools and colleges under this project, with an orientation programme planned for each enrolled school/college. A teachers' training programme was conducted in November 2016 for all 50 schools for the formation and functioning of Clean Ganga Clubs. Schools were also provided guidance for conducting school and ghat level activities. CEE team has conducted 10 awareness drives with the support of the enrolled schools.

Ghat Activities: A baseline survey of 84 ghats was conducted, the vendors on these ghats identified and nine rounds of vendors' meeting organised. Stakeholders associated with various ghats were invited for meetings to discuss possible actions to be taken. During the year, three stakeholder meetings were conducted. An exhibition stall was set up and activities were facilitated during Ganga Mahotsav in November 2016 and other occasions.

Nukkad nataks (street plays) were conducted in 40 locations focusing on spreading messages of sanitation, hygiene, open defecation free ghat, 'say no to plastics' and others. Boatmen were engaged in the discussion as a result of which dustbins were installed on boats.

11.1.2 Gange Swachhata Pakhwada – March 16-31, 2017

As part of the Namami Gange initiative, a "Ganga Swachhata Pakhwada" (March 16-31, 2017) was observed by the National Mission for Clean Ganga (NMCG) and the Ministry of Water Resource, River Development and Ganga Rejuvenation, Government of India. The Pakhwada was conducted as an awareness campaign to invite

citizens to come together and contribute towards keeping river Ganga clean.

CEE was designated as the nodal agency by NMCG to conduct this campaign along the Ganga river, covering prime cities and towns. The awareness activities of the Pakhwada were conducted in 17 cities and towns along the river, in five Ganga basin states - Uttarakhand, UP, Bihar, Jharkhand and West Bengal. The Pakhwada began from Allahabad on March 16, 2017 and concluded on March 31, 2017 at Haridwar.

The 16 days long Pakhwada was planned as a wide array of awareness and action activities. The events were focused on sensitising people and encouraging their participation in the mammoth task of cleaning river Ganga and its ghats. At each location, various events such as Ganga samvaad/chaupal, awareness rally, shramdaan, nukkad natak, cultural evening, signature/pledge campaign, were organised at different ghats. These events were conducted with the support of the District Administration, Nagar Nigams, Jal Nigams, Pollution Control Boards, Nagar Panchayats, local NGOs, universities, schools and individuals. Public outreach was attained using different mediums like SMS, radio jingle, mobile van and hoardings. A variety of resource materials to motivate the public to take action for saving river Ganga was developed by CEE. The events conducted in all the locations were covered well by print and electronic media.

Uttarakhand

Rishikesh: Being a pilgrim city, the campaign was focused on local religious leaders, shopkeepers and villagers. A wide range of activities was conducted including nukkad natak, pad yatra, awareness campaigns,

chaupal, cultural evening, shram daan, pledge campaign, etc. Apart from Triveni Ghat, various awareness activities were conducted at different locations including nearby villages.

Haridwar: Various strategies and mediums were used to sensitise people which included nukkad natak, pad yatra, awareness campaigns, chaupal, cultural evening, shram daan and pledge campaign. The concluding ceremony of the campaign was conducted at Malviya Dweep, Har Ki Paidi, Haridwar, where the Minister for Urban Development, Uttarakhand was the chief guest, with the Mayor, Haridwar Municipal Corporation, and the Director General, National Mission for Clean Ganga (NMCG), Joint Secretary (Administration) were special guests. The District Officer, City Commissioner, Project Director, SPMG and City Magistrate represented the Uttarakhand Government on the occasion. Various groups presented nukkad natak focused on adopting practices to save Ganga.

Uttar Pradesh

Bijnore: Events in Bijnore started with a Ganga Swachhata dialogue organised at Helpage Ashram which was also observed as the World Forestry Day. The Executive Director (Admin), NMCG; Divisional Forest Officer, Bijnore; and the Under Secretary, National Water Mission addressed the gathering. The Pakhwada programme saw enthusiastic participation of children and youth, teachers, local NGOs, religious groups and the local community. Activities included padyatra (participation of more than 250 people including officials), plantation, Ganga chaupal (was conducted to get various view points for conserving Ganga and keeping its banks clean), competitions, pledge campaign and more. School children were asked to provide their creative

expressions on the theme of Nirmal Ganga - Sabki Bhagidari for the competition.

Garhmukteshwar: Garhmukteshwar Nagar Panchayat is part of Hapur District in Uttar Pradesh. A variety of events were held at the Brij Ghat including padyatra, rally, shram daan, plantation activity, exhibition, and various competitions. World Forestry Day and World Water Day were also observed. The Pakhwada events connected rivers to water conservation and increasing green cover. More than 5000 participants took part and pledged to save Ganga and its ghats.

The Minister (State), Ministry of Water Resources, Government of India, addressed the gathering on one of the days during the campaign. The Member of Parliament, Amroha; MLA Garhmukteshwar; Joint Director, NMCG; Commissioner of Police, Meerut; District Magistrate, Hapur; Chief Development Officer, Hapur; Executive Director (Admin), NMCG, and other dignitaries were present during the event.

Anupshahar: A range of awareness and action activities were conducted at Anupshahar Nagar Panchayat, Bulandshahr District, along the river Ganga. The campaign began with the cleaning of Babsterganj Ghat by more than 100 international and local youth volunteers, along with shopkeepers. Everyone present at the event took an oath to keep Ganga and its ghats clean. During the Swachhata campaign, enthusiastic volunteers also covered Naya Ghat, Jahnvi Ghat and Triveni Ghat at Anupshahar as well. The Sub Divisional Magistrate, Anupshahar, also joined the event along with Kanti Prakash Vidya Mandir, Gurukul Temple of Education, Pardaada Pardaadi Education Society and Shri Ganga Seva Samiti. Ganga chaupal, painting, essay and rangoli competitions, rally and shram

daan were conducted during the Pakhwada at Babasterganj Ghat and Roondh Bangar village school campus where youth, children, women's groups, officials and local NGO participated in the events.

Narora: A variety of awareness events were conducted in Narora Nagar Panchayat of Bulandshahr District along the river Ganga. A Ganga workshop; painting, essay and rangoli competitions; as well as shram daan (conducted at Gandhi Ghat, covering a distance of 300 mts) was organised during the Pakhwada, covering Narwar and Gandhi Ghat where youth, children, women's groups, Gayatri Parivaar, business community, individuals from nearby villages, officials, employees of Narora Atomic Power Station (NAPS), local NGOs, and local organisations joined the events.

The Ganga Swachhata pledge and signature campaigns were initiated in the presence of the Chairperson, Narora Nagar Panchayat. Around four trolleys of waste were removed through shram daan and was properly disposed of with the help of Nagar Panchayat workers. A Ganga Workshop was organised at the NAPS Employees Union Association office at Narora. The women's group found this a good platform to share ideas and thoughts related to Ganga and its cleanliness.

Kanpur: Kanpur, another important location of Uttar Pradesh located along the Ganga river, observed events spread across four ghats, including Ganga samvaad, Ganga chaupal, padyatra, shram daan, nukkad natak, seminar and competitions. More than 5000 people took part in awareness and action events and took a pledge to keep the river Ganga and its ghats clean. The MLA, Bithoor Nagar Panchayat, inaugurated the Pakhwada in Kanpur at Brahmavatar Ghat. The Executive Director

(Admin), NMCG; Member, Central Water Commission; Director General, National Water Development Agency; Addl. District Magistrate (City), Kanpur; and Director of Finance, State Ganga River Conservation Agency, along with other key delegates, participated in shram daan. A Ganga Swachhata Rally was taken out and a daylong seminar was organised at Chatrapati Sahuji Maharaj University.

Allahabad: The Pakhwada opening ceremony was held in the religious city of Allahabad in Uttar Pradesh. Ganga Swachhata Pakhwada was formally launched with a grand opening programme at Allahabad at the Sangam, in the presence of the Deputy Director General, NMCG; Executive Director (Projects), NMCG; District Magistrate, Municipal Commissioner and Mayor, Allahabad. The Pakhwada events were well received with the enthusiastic participation of more than 15000 children, youth, local community members, NGOs, ITBP, Nagar Nigam and other officials. The event began at Sangam while the rest of the programmes were conducted at Sitaram, Narayani Ashram, Kila and Dashaswamedh Ghat. School competitions, awareness rally, door to door campaign, nukkad natak and shram daan were organised.

Varanasi: The Pakhwada in Varanasi opened through an announcement ceremony which initiated a dialogue and buzz about the Ganga Swachhata awareness events. Activities were conducted across 10 ghats starting with Rajendra Prasad Ghat and ending at Assi ghat. More than 10000 people including children, youth, local NGOs, vendors, boatmen, officials from the district and state government, were present during a variety of events. New ways of sensitising people were used in the events at Varanasi, which included boat race,

swimming competition, cultural evening, nukkad natak, visit to STP and chaupal.

Vrindavan: River Yamuna being an important tributary of Ganga, one Yamuna location was included for conducting the Pakhwada awareness activities. Vishram Ghat saw various awareness activities including plantation, competitions, padyatra, cultural evening, signature campaign, Yamuna chaupal, workshop and shram daan. The Joint Secretary (PP), Ministry of Water Resources (MoWR); ED - Finance, NMCG; Commissioner, B&B (Brahmaputra & Barak), MoWR; District President, BJP; Chief District Officer (CDO), Mathura; Director Finance, SGRCA (UP State Ganga River Conservation Agency) and other officials were present during the events.

Bihar

Patna: In Patna, the Pakhwada had events like competitions, Ganga chaupal, seminar, cultural evening and shram daan, which were held at Gandhi and Barharva Ghats. The cultural evening at Gandhi Ghat was inaugurated by the Deputy Director General, NMCG; while the Advisor, National Water Mission; Member, CGWB (Central Ground Water Board); Municipal Commissioner, Patna; Regional Director, CGWB; SPMG (State Programme Management Group), Bihar; and other dignitaries were present. Dance, songs, skits, and other art forms were performed on the theme of Clean Ganga. The Pakhwada activities concluded with a seminar where the Head, Patna University; Leader-Opposition, Bihar Assembly; officials from Bihar State Pollution Control Board and Bihar Forest Department; District Chairperson, Rotary Club; and other guests shared their views.

Bhagalpur: The Pakhwada here saw events like cultural evening, skit, shram daan and

padyatra. Institutions, local groups and NGOs came forward to take part in the awareness activities. Kuppa Ghat and Barari Pul Ghat were covered for conducting awareness activities which included shram daan, padyatra, pledge, and awareness campaign.

Jharkhand

Sahibganj: The Pakhwada event was aimed at engaging villagers involved in the Namami Gange initiative with support from UNDP. The Pakhwada activities were conducted at Ganga Ghat Rajmahal with the participation of the local people. The MLA of Sahibganj; Member, National Water Mission; officials from the district administration, CGWB Patna and Ranchi, and SPMG Jharkhand, addressed the participants during the cultural evening. Competitions were organised for school children and winners were given prizes.

West Bengal

Nabadwip: Pakhwada events were conducted at seven different ghats which saw enthusiastic participation of school and college students, youth, women, villagers, people residing near the ghats and others. Drawing competition, poem recitation, quiz on the holy river, oath taking and signature campaign for school children were conducted here, while separate activities were conducted for youth and community members. Ganga puja by a priest, tableau road show, cleaning of ghats and tree plantation near the ghats were undertaken. More than 1000 people participated in these programmes. The tableau for the road show was flagged off by the Director, NMCG along with other officials at Ranichaura Ghat. A cultural programme by local artists, pledge campaign, shram daan by youth volunteers near the ghat area, and tree plantation by delegates near the ghats, were the highlights

of this programme. A group of local residents adopted these plants for further care. The community was encouraged to visit the exhibition stall and study the information panels.

Hooghly: A series of awareness activities – including shram daan, cultural evening, competitions and skits - was carried out in Hooghly at Balagarh and Chandannagar Ghats. Local school and college students took part enthusiastically in the awareness events. At Balagarh Ghat, the Panchayat Pradhan of Balagarh Gram Panchayat shared her thoughts, while students performed dance, folk song and recitation, aligning their performance with the Ganga Swachhata campaign. Afterwards shram daan, cleaning of ghats, visit to the exhibition and a signature drive was organised. Students and teachers from schools in Bhadreswar conducted a mass rally with banners, placards and posters. The mayor of the area was present at the event. Drawing competition, pledge and signatures campaign drew good participation from the people.

Howrah: A mass awareness programme was conducted at Chatubabu Ghat on March 30, 2017 which included an array of activities to sensitise the community, specially the school students, youth and women. Various schools and community members actively participated in the awareness event. Varied competitions including drawing, slogan writing and recitation were conducted at the ghat. Demonstration sessions like sample water testing of Ganga River helped the students to realise the extent of pollution in the river. Participants visited the exhibition and signed on the pledge banner. An open house quiz on rivers was conducted for the students, teachers and guardians. The programme culminated with the felicitation ceremony.

Kolkata: Awareness programmes were conducted at Tiljala where rag pickers, who have been visiting the Ganga Sagar Mela, were involved to bring out the increased significance of their role in keeping Ganga clean in future. The mass awareness programmes conducted with them had key activities like awareness talk and discussions on waste segregation, the ecosystem of Ganga and its linkage to waste management, drawing competition and signature campaign. The rag picker community were oriented on waste management and encouraged to adopt the habit of cleanliness, towards keeping our surroundings and the river Ganga clean. A signature campaign was also organised where the local community members signed a pledge. On World Water Day, the awareness campaign reached to Paglahat where awareness talk by representatives from Tiljala Shed, drawing competition and signature campaign was conducted.

Public Outreach Campaign

For the success of any campaign, a variety of modes is required to inform the public about the programme and its purpose. To reach out to people in the Ganga Swachhata Pakhwada locations, SMS campaign, radio announcement, hoardings at prime locations and mobile vans were used. Apart from this, advertisements in national newspapers and pre and post coverage of events helped to get due publicity for the campaign. For participants, a set of take-away material was designed and developed for dissemination during the awareness event. This included a flyer, badge, poster, sticker, caps and t-shirts. An exhibition of 15 posters on Swachhata and the importance of keeping Ganga clean was developed. The exhibition focused on actions that citizens can take to keep their city and river clean.

11.1.1.1 Ganga Swachhata Pakhwada – CEE Himalaya

Rishikesh and Haridwar

A range of activities like rallies; drawing, painting, extempore, essay and slogan writing competitions; tree plantation; nukkad natak; interviews; dance, music and cultural performances; cleaning drive; wall writings; boat and rafting races, were organised throughout the fortnight at more than 71 locations in both the cities and their surrounding areas. More than 25,000 people were directly contacted and about five fold more were reached indirectly through the Pakhwada celebration activities.

Celebration at Triveni Ghat - March 23, 2017

During the Ganga Swachhata Pakhwada, a major event was organised by at Triveni Ghat, Rishikesh, with the Ganga Sabha of Rishikesh and Divya Sewa Mission of Haridwar as the local partners. The event, with Mr. Brijesh Kumar Tiwari, Sub-Divisional Magistrate (SDM), Rishikesh, as the chief guest, was also graced by the presence of eminent people like Mr. Rozy Agarwal, Executive Director (Finance) NMCG (guest of honour); Mahant Dr. Rameshwar Das; Mr. Santosh Vijay Sharma, Chief Conservator of Forests (CCF); Mr. Muzamil Hasan, Executive Engineer, Paye Jal Nigam; and Mr. Vijay Chauhan, Executive Officer, Rishikesh Municipality.

More than 300 people attended the event including the Director General of Police; officials of the Municipality, Forest Department, Education Department and Tehri Hydro Electric Development Corporation; teachers and students; representatives from Vyapar Mandal, Rotary Club, Lions Club, Indo-Tibetan Border Police, Wildlife Institute of India, GIZ; mahants; Ganga Sabha members

and office bearers; villagers, mediapersons, tourists and pilgrims.

Activities conducted during the event include an exhibition, drawing/painting/essay writing competitions, a game on disaster preparedness called Riskland, rally, nukkad natak (on the theme of open defecation and pollution free Ganga) by professionals, dance, Namami Gange film show and a song on Ganga, shram daan, plantation of 'rudraksh' saplings, pledge, and a signature campaign. The winners of the competitions were felicitated and awarded prizes by the guests. A cleanliness drive on Har Ki Paidi Ghat marked the beginning of the event, with the chanting of slogans on cleaning the Ganga and maintaining the ghats which was led by Mr. Garg.

Closing Ceremony of Ganga Swachhata Pakhwada

The closing ceremony of the Ganga Swachhata Pakhwada was organised at Malviya Dweep, Har Ki Paidi, Haridwar on March 31, 2017. The event was graced with the presence of Mr. Madan Kaushik, Minister of Urban Development, Government of Uttarakhand, as chief guest, along with Mr. Manoj Garg, Mayor, Haridwar Municipal Corporation; and Mr. U. P Singh, IAS, Director General, National Mission for Clean Ganga (NMCG); and Mr. Akhil Kumar, IPS, Joint Secretary (Administration, NMCG) as special guests. Other dignitaries included Mr. S. A. Murugesan, IAS, District Officer, Haridwar; Mr. Ashok Pandey, City Commissioner; Dr. Raghav Langar, Project Director, SPMG; Mr. Jay Bharat Singh Rawat, City Magistrate; besides several officials from the district administration and representatives from various social organisations of Haridwar.

The ceremony kicked off with a cleanliness drive on Har Ki Paidi Ghat led by Mr. Garg along with the local citizens and tourists. An exhibition on the theme of Ganga was inaugurated. Thematic activities conducted for the children and youth at the event included poster making (on a green vision for Ganga and Ganga's beauty), drawing competition (on nature, interdependence of life and concerns and issues related to them), essay writing (on eco-friendly lifestyle and ethically rich traditions that can help deal with current problems), environmental games (to reinforce environmental concepts) which brought out their creativity and provided fun.

During the formal function, Mr. Raghav Langar stated that the mission aims at 'Aviral Ganga, Nirmal Ganga' and urged that the activities initiated during the fortnight must continue. Mr. Murugesan pointed out that tourist awareness was an important part of these activities and requested the local people to support this endeavour. Mr. Singh shared the initiatives taken by the government under this mission and also appreciated the activities organised for community awareness under the Pakhwada. Mr. Garg assured the audience that the efforts for clean Ganga are pacing up and will continue even after the Pakhwada. He also requested the representative from the central government to develop the washer man ghats as done at Sabarmati Ghat in Ahmedabad. In a motivating speech, Mr. Kaushik urged for effective implementation of plans and schemes at field level. In recognition of the creativity and efforts of the students, the winners in various competitions were felicitated by the guests and prizes awarded.

The cultural performances by local organisations that followed included: a skit on the problem of waste disposal in the Ganga

by Sambhav Manch, a play 'Aao Sankalp Kare' by Seva Manch urging participants to take positive actions to clean Ganga, a dance on the theme of 'Namami Gange' by the students of Divya Prem Seva Mission, and another dance on the theme of 'Namami Gange' and 'Ganga Avtaran' by Kaushik Arts and Creation. The programme culminated with the Ganga Swachhata pledge, where participants took an oath to conserve Ganga through positive actions in daily life, and a signature campaign, followed by Ganga Arati.

11.1.1.2 Ganga Swachhata Pakhwada in West Bengal

CEE Kolkata, along with state level local NGO partners, conducted awareness activities during March 16-31, 2017, under Ganga Swachhata Pakhwada, a fortnight campaign of the Namami Gange programme of NMCG. These were conducted at different ghats located across West Bengal, at Nabadwip, Chandannagar, Balagarh, Howrah, and Kolkata. The wide range of activities included Ganga Arti, keynote address by local dignitaries, tree plantation, shram daan, cultural programme, competitions, oath taking, signature campaign, rally, tableau road show and poster exhibitions. The campaign in West Bengal has been able to sensitise around 15000 people representing different strata of society on the need to keep the holy river clean.

11.2 WATSAN – CEE Northeast

11.2.1 Institutionalisation of Nirmal Vidyalaya Puraskar (NVP)

This project (May-July 2016) aimed to integrate Swachh Vidyalaya Puraskar (NVP)/Swachh Bharat Swachh Vidyalaya (SBSV) in the School Development Plans (SDP) in Assam, in the light of the SDGs.

The specific objectives of the project were:

- Inclusion of SBSV elements in the School Development Plan (SDP) of 30 selected schools
- Need assessment and prioritisation of needs in the 30 schools through the process of micro-planning
- Documentation of the findings of the study in the form of a Handbook, a photo-essay and PowerPoint presentation, to be used as a model document at the district, state, national and international fora for inspiration and continued implementation at various levels

The project activities included:

Exposure visit: Before the initiation of the project, an exposure and training programme was organised for CEE project staff at Baripara LP School under Boko Education Block and Kochpara LP School in Rampur Educational Block, to understand the essence of the School Development Plan (SDP) and field test various analysis tools.

Orientation training: A one day in-house orientation training for project staff by SSA representative, Ms. Sumi Barthakur, and independent consultant, Ms. Dipanjali Choudhury.

Rapport building visit: Each school was visited by a CEE team member to introduce the concept of School Development Plan and explain the objectives of the project to the school administration, School Management Committee (SMC) and Mother's Group.

Analysis of Available SDPs: Existing SDPs were collected, studied and analysis to identify the gaps in Swachh Bharat Swachh Vidyalaya (SBSV) elements.

Public Consultations: Two-three meetings were organised with various stakeholders in each school to discuss the SDP and address the following specific points:

- Problem identification and problem prioritisation using a double matrix and simple linear methods
- Mapping of the school campus and the resources available nearby
- School/Resource/GPS Mapping
- Micro-plan (inclusion of budget and source of fund) for school development in consultation with the community

As an outcome of the project, SDPs for the 30 project schools were prepared in the local language. For the first time, missing historical information like the establishment of the school and key contributors (like head teachers, SMC members, Mother's Group and Student Council from earlier SDPs) were recorded in writing. The six elements of SBSV guidelines, namely, Sanitation, Daily Hand washing with soap before MDM (mid day meal), Drinking Water, Operation and Maintenance, Behaviour Change Capacities and Enhanced Capacity Building were included in the new SDP.

11.2.2 Swachh Vidyalaya Programme - 2016-17

The project that ran during November 2016 – February 15, 2017, aimed to integrate the Swachh Vidyalaya Puraskar/Swachh Bharat Swachh Vidyalaya (SBSV) elements in the School Development Plan (SDP), and include the additional elements of Mapping of Out of School Children (OoSC), Disaster Risk Reduction (DRR) plan, community participation plan, plan for making the school a Tobacco Free Zone, grievance redressal

mechanism and Quality Improvement Plan (QIP). Providing support support to the SSA WASH Cell and UNICEF Focus districts was also part of the project.

The objectives of the project included:

- Continuous technical support to SSA WASH Cell for preparation of Annual Action Plan (AAP), organising WinS Task Force and WinS Working Group meetings, and monitoring of schools for SVP. Revisit State SVP guidelines in the light of the National SVP Guidelines revise them if needed.
- Strengthening of 30 model SDPs with inclusion of the additional elements suggested by SSA State Mission Office
- A state level workshop to develop a comprehensive framework and roadmap for the integration of SBSV elements in SDPs
- Technical support to District SSA Teams to sensitise SSA officials about the SDP framework

The project supported the SSA WASH Cells in preparing their annual action plan for 2016-17 and in compiling and documenting the history of the WASH Cell since inception. The Swachh Vidyalaya Puraskar guidelines were revisited and reviewed by the CEE team and it was confirmed that all the important parameters of the National SVP guidelines have been included. The 30 experimental schools were facilitated to integrate the new elements in their SDPs as per the need felt during the first phase of the project. A draft SDP framework was also developed based on the discussions with the 30 experiment schools and at state level meetings with SSA officials, and discussions during the visits to the four UNICEF focus districts with the SSA officials.

A state level workshop was organised on January 24-25, 2017 to develop a comprehensive framework and roadmap for the integration of SBSV elements in School Development Plans (SDPs) for the entire state. The 30 experiment schools also developed their SDPs for the next three years.

11.2.3 Swachh Bharat Mission (Gramin) – Implementation in Kamrup Metro District

The aim of this project was to create awareness, sensitise and motivate rural communities to adopt hygienic behaviour on water and sanitation. The project location was Kamrup Metro District, covering 22 Gram Panchayats (GPs) of its four Rural Development Blocks – Bezera, Chandrapur, Dimoria and Rani.

The objectives of the project were:

- Sensitise Panchayat members on the role of SBM (G)
- Create mass awareness about SBM (G) and motivate people to use sanitary latrines
- Conduct a survey of all 22 GPs and help PHED update the beneficiary list by inclusion of left-out families, newly migrated families and newly divided families

A series of activities were conducted from May 2016 to March 2017 as part of the project, which included meetings in 22 GPs; village level programmes such as awareness and sensitisation workshops in different wards of the 22 GPs; school programmes at various lower primary, middle and high schools in the 22 GPs; rallies with schools in various blocks; poster campaigns in public areas such as market places, schools, GP offices, block offices, health centres, anganwadis and others.

Sensitisation programmes were carried out to cover the rural communities of 22 GPs where the people were motivated to adopt hygienic behaviour on water and sanitation. The table below shows the coverage achieved as part of the project.

<i>Achievements</i>	<i>Numbers</i>
Number of Administrative Blocks covered	4
Number of Gram Panchayats covered	22
Number of Wards covered	220
Number of GP Presidents oriented	22
Number of Ward Members oriented	220
Number of Community Volunteers oriented	363
Number of GP level workshops held	71
Number of Community Maps prepared	28
Number of inclusion forms processed by CEE team	7741
Number of Summary Revision Hearings facilitated	22
Number of households physically verified before the hearing	7741
Number of school programmes	25

11.3 WATSAN – CEE Rajasthan

11.3.1 WASH with Akshay Patra Foundation

It is generally agreed that one of the main reasons behind dropouts is the poor sanitation facilities in schools. While schools, after the family, have a vital role to play in the cognitive and creative development of children, and their socialising and learning, they are also important places to address the health issues of the children, provided necessary infrastructure is available. In order to bring about changes in school sanitation and hygiene, both hardware (the total package of sanitary conditions and facilities available in and around the school compound) and software (the activities conducted to bring about changes in the hygiene behaviour of students and, through these students, in the community at large) are required.

In this context, CEE Rajasthan, along with Akshaya Patra Foundation, carried out a WASH programme in four phases, with the main focus on the software aspects. Two phases were completed in 2015-16, which included: (i) a block level principal orientation workshop organised at Chaksu and Sanganer covering 45 selected schools of Jaipur in the first phase; and (ii) visit to these 45 schools to create awareness about personal hygiene, along with the constitution of student led WASH Councils and distribution of personal kits to all the students in the second phase. The third and fourth phase were carried out in 2016-17.

In the third phase, during July-August 2016, school visits were conducted to display the portable hand washing unit to the schools, to demonstrate the proper hand washing steps and to observe the proper functioning of the WASH Council that were formed in the

previous phase. During the visit, the need and technique of proper hand washing – the five steps of hand washing – and the use of soap was explained and taught to the school staff and students. Some of the features of the portable units like benefits of placing the taps on the opposite sides, different types of taps used in the unit and their purpose, and less spillage of water were demonstrated to them. The rationale for the government providing children with deworming tablets and how the worms get into their body was explained to them. The work done by the Council and the difficulties faced by them were also discussed.

For better understanding of the WASH concepts and ideas, IEC material - containing a poster on hand washing, a poster on hand washing steps and a calendar for monitoring WASH practice in schools - was handed over to the schools, which were displayed in the campus by the WASH Council.

The objective of the fourth phase was to discuss the overall process of the WASH programme with the WASH Council members and teachers, and to observe the WASH practice in schools. Separate feedback forms were prepared to collect data from the school and the WASH Council members, which was analysed for the different components of the programme. Some of the findings from the analysis include:

- 98% of the schools found that the posters given during the visits were beneficial in creating awareness among children about personal hygiene.
- 87% of the schools liked the idea of the portable hand washing unit displayed as a solution for proper hand washing facilities in their school.

- 89% of the children in the Council felt that their friends/peers are gradually developing the habit of maintaining hygiene on their person and the surroundings.
- 91% of the schools felt that children are more effective in teaching their peers as compared to teachers.

11.3.2 Integrating Water, Sanitation and Hygiene (WASH) Education in 'Adarsh and Utkrist Schools' of Rajasthan

CEE was invited to share its experience of whole school approach and Water, Sanitation and Hygiene (WASH) education programmes at a state level workshop in Jaipur, organised by UNICEF and Education department, Government of Rajasthan. The objective of the workshop was to provide exposure to participants about WASH in School (WinS) programmes in other states of India and to draw key recommendations for strengthening WASH initiatives in the model schools of Rajasthan – the 'Adarsh and Utkrist School' scheme for enhancing quality of education in elementary and secondary education respectively initiated by the government. Mr. Simanta Kalita, Programme Coordinator, CEE North East shared his experience of Daily Handwashing for an Ailment-free Life (DHaAL) project as a model for saturation and scale-up of group hand washing practices in school. Mr. Parthesh Pandya, Programme Coordinator, CEE West, shared his learnings of child and community participation in the Anandshala model. CEE's efforts in the Swatch Shale project of Karnataka was also highlighted in the presentation by Mr. Salathiel Nalli, WASH Specialist, UNICEF, Hyderabad. CEE West also supported an activity to identify gaps and possible solutions for strengthening

WASH in schools across the state. The workshop was attended by around 200 state and district level officers of the Education department of Rajasthan.

11.4 Swachh Bharat Swachh Vidyalaya WASH Initiative

In partnership with the Lady Bamford Charitable Trust, CEE is helping 30 schools to improve water, sanitation and hygiene conditions. The project was initiated in 2015. Over the last year, CEE has worked with the team of educators from the Trust to prepare a report documenting the baseline conditions in 30 schools in three locations: Pune District, Jaipur (Rajasthan) and Vallabhgarh (Haryana).

A variety of IEC materials have been prepared for use by the team of educators from the Trust as well as by teachers, and as signage and display material for the schools. A series of capacity building workshops on water and sanitation education were conducted for the Trust staff and teachers.

11.4.1 School Water and Sustainability Education Programme at Jaipur

Though virtually everything we do or use every day involves water, we do not give it the importance that is due to it and hence India is facing its worst ever water crisis, and we all need to work towards our water security. Simple actions can be adopted to reduce the wastage of water and to use it wisely. Rain water harvesting is necessary, but it is equally important to understand our current water usage pattern for proper management of water, and this can be done through a water audit. Lady Bamford Charitable Trust (LBCT), the social arm of Joseph Cyril Bamford (JCB) Limited, in collaboration CEE, carried out a

water and sustainability education programme at Jaipur with the aim of:

- Engaging the students and faculty of the school in a set of activities to understand water in their local context and its sustainability linkages
- Initiating water management practices in schools by adopting methods to improve the learning environment and utilising this to develop a conservation attitude in children.

Under the programme, workshops were organised for students and teachers to improve their understanding of water and allied issues, and water audit. These workshops covered numerous dimensions of water such as water source and its quantity, quality, economy, politics, management and others. Water audit and water management practices were also demonstrated to the participants. Teachers were oriented to the project and its environmental and educational outcomes; how it can be integrated with topics covered in the classroom was also discussed.

A school water audit sheet developed by CEE was handed over to students and teachers. Each section of the audit sheet like the amount of water consumed, rain water harvesting potential, etc. were discussed in detail with reference to their objectives and how to carry out the audit. The participants, in groups, collected baseline data about water and its current management practices in the school, which was then compiled and analysed. This provided the baseline for water use behaviours in the school, depicting how and where water is being used, and where and what improvements were possible. Based on the analysis and allied observations, recommendations were developed for improving water conservation and

management strategies in the school in upcoming years. These included benchmarking water use; establishing procedures for water monitors to regularly check for leaks; adopting water harvesting and reusing waste water; developing posters and educational materials for enhancing awareness and improving understanding of the issue; and the constitution of water management teams/student cabinets.

11.5 WATSAN in Karnataka

11.5.1 Swacha Shale Programme

Swachha Shale is an ongoing programme initiated by CEE Karnataka, SSA Karnataka and UNICEF, in collaboration with the Zilla Panchayat, Ramnagar. The programme aims to reduce the risk of diarrhoea and thereby increase school attendance and enrolment, by motivating and sustaining hygienic behaviour. This programme, initiated in 2015, has been extended to 7000 schools during 2016-17, and is linked to the Mid-day Meal scheme of the Karnataka government. During the reporting year, the following activities were undertaken as part of the programme:

- One day orientation programmes for 65 teachers
- Hygiene camps for school children in 60 schools, covering 1500 students
- State level training programme on Swachha Shale for all the 30 State Education Officers and 175 Assistant Directors of Public Instruction in the state
- Menstrual Hygiene Training programmes for girls in 55 schools

The Country Head of UNICEF, Mr. G. Louis, visited some of the Swachha Shale schools and appreciated the work being undertaken.

11.5.2 Global Hand Washing Day

Global Hand washing Day is an annual global advocacy day dedicated to increasing awareness and understanding about the importance of hand washing with soap as an easy, effective and affordable way to prevent diseases and save lives. To mark this day, CEE, in collaboration with the Department of Public instruction and UNICEF, organised a group hand washing on November 7, 2016, across the state in all the 49,837 government schools covering 36,25,379 students.

11.5.3 Evaluation of 'A Behavioral Change Demonstration (ABCD)' Project

CEE Karnataka undertook an evaluation of 102 schools in Ramnagar District, Karnataka, where a school sanitation programme was initiated by the organisation SNEHA in collaboration with Toyota Kirloskar Motor. As part of this assignment, all the schools were visited and observations recorded on the sustainable use of toilets and behaviour change among the children. The evaluation indicated



A focused group discussion underway in Premnagar slum. The FDG was facilitated by CEE and attended by Shwaas samiti members and a few representatives of the communities who are the beneficiaries of the project.

that 90% of the schools followed sustainable sanitation and hygiene practices. An evaluation report has been submitted to SNEHA.

11.6 Mid-term Assessment of SHWAAS Project

European Union funded 'SHWAAS (Slum Sanitation and Health Welfare Advanced Approach System) Project' is one of the major attempts of Pune Municipal Corporation (PMC) to improve the quality of life of the people living in the slums in Pune. CHF India Foundation is responsible for the implementation of this five year (2013-18) project. CEE undertook the mid-term evaluation of the project between December 2016 and February 2017. The main tools used for the evaluation were focused group discussions in 15 slum localities in Pune where the project is being implemented. Along with this, field observations to check the improvements in sanitation and waste management infrastructure services in the slums, and interactions with waste pickers, social workers and caretakers of community



IEC materials on display at the Khairawadi community toilet. Several such materials were developed and placed at strategic locations as part of the outreach to the community in the slum area.

toilets were carried out. These interactions strengthened the field observations and helped CEE make recommendations that would help strengthen SHWAAS in Pune. The final report was submitted to PMC.

11.7 Civil Society Consultation on the Draft National Water Framework Bill, 2015

CEE Himalaya took part in a civil society consultation organised by WaterAid, in collaboration with the UP WASH Forum, to comment on the 'Draft National Water Framework Bill' and 'Draft Ground Water Model Bill'. These draft bills have been put up in the public domain by the Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India, for receiving feedback and comments before finalisation. Dr. Abdhesh Gangwar, Programme Director, on behalf of CEE Himalaya, was invited as a key speaker to discuss and comment on the Bills.

12.1 Common Healthcare Waste Appropriate Management Plant (CHAMP), Kalaburagi, Karnataka

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 Kalaburagi city in Karnataka. The CHAMP facility is in operation since May 2005. CEE CHAMP Kalaburagi facility has been collecting, transporting treating and disposing the collected waste of Kalaburagi City Healthcare Establishments (HCE) since 12 years successfully.

CEE CHAMP covers 200 bedded HCEs of Kalaburagi District and a total of 570 non-bedded HCEs. CHAMP has also extended its services to all the HCEs in Sedam, Jewargi, Afzalpur, Chincholi, Aland and Chittapur talukas of the district. During the year, CEE has conducted around 250 on-site orientation programmes for medical and paramedical personnel from HCEs and medical colleges in the city and talukas to whom CHAMP provides services.

Around 240 students and 20 faculties from MR Medical College, Geology Department of Gulbarga University, ESI Hospital and Medical college, HKES College Kalaburagi, visited the CHAMP site to understand the working model and economics of the plant. Thus, apart from providing services to the healthcare establishments of Kalaburagi city, it also serves as a demonstration model for the students and visitors to get adequate knowledge on the operation of the common biomedical waste treatment facility.

12.2 Swachhagraha

CEE is the Knowledge and Implementation partner for the project 'Swachhagraha', an initiative of the Adani Foundation. The project 'Swachhagraha' draws inspiration from the Satyagraha movement, to engage people and bring about change similar in scale to India's freedom movement, where people get involved to take action for 'Creating a culture of cleanliness'. The programme, initiated in June 2016, was implemented in 650 schools in six cities of Gujarat. About 754 teachers from these 650 schools, ranging from elite private schools to government municipal schools, were trained in behaviour change education.

At the school level, the programme was implemented through teachers (Swachhagraha Preraks) and students (Swachhagraha Dal members). Swachhagraha has involved over 12000 children as active Swachhagraha Dal members who reached out to their 3,20,000 peers, their parents and the community through a variety of planned action projects and campaigns during the year. The programme focused on four key themes, namely, Waste management and Littering, Sanitation, Personal Hygiene and Toilet Etiquettes. The annual activity cycle included development of Teachers' Handbook, Activity Book for students, teachers' trainings in the cities, training of Dal members, development of action plan by the Dal members guided by the Preraks, and implementation of activities in the schools. Campaigns through the website, Facebook page, emails and Whatsapp updates helped keep the motivation and momentum of the programme high. A pre and post literacy test was conducted in a sample of Swachhagraha project schools to ascertain the change in knowledge, attitude and behaviour

among the students as a result of this programme.

The programme has provided insights into dealing with misconceptions regarding cleanliness that many people have and helped devise strategies to deal with these. For example, some schools did not seem to feel that there was a need for a project on cleanliness in their school as the school was very clean, but an activity as a part of the project helped them realize that there needs to be a focus on behaviour change of students and teachers and not just the activity which an employee is doing. Important issues such as toilet cleanliness are being discussed and actions to solve them taken up. Segregation of waste is being developed as a habit among the parents as cleanliness is considered a collective responsibility.

The programme is being scaled up to schools in 14 states in 2017, and will add a youth component for the cities in Gujarat.

12.2.1 Swachhagraha in Rajasthan

In Rajasthan, schools participated enthusiastically in the campaigns carried out under Swachhagraha. In September, eco-clubs from Rajasthan took part in 'Safai Ke Sitare' campaign, an initiative to acknowledge the heroes who help keep our environment clean – the cleaning staff. Students interacted with the cleaning staff, prepared a creative write-up describing the person with his/her name, background, and the importance of their role in society, and also clicked a selfie with them.

Schools carried out action projects on issues related to cleanliness and participated in 'Gandagi Se Azadi' campaign in January 2017. The action project of a school from Barmer

was shortlisted as one of the best entries at national level.

In February, schools from Rajasthan actively participated in 'Swachhagraha ke reporters' campaign, an initiative to understand that who is responsible for maintaining cleanliness. Under the campaign, students interacted with the various stakeholders of their school and community and presented their conclusions as a reporter. They also prepared a short video as part of the campaign. A school from Sirohi was shortlisted among the 10 best entries at the national level.

12.3 Awareness Programme on Waste Management at Gangotri

CEE Himalaya organised an awareness programme on Waste Management at Gangotri, Uttarakhand on June 14, 2016. Various IEC materials developed by CEE were displayed that disseminated messages on a clean environment and the need for appropriate waste disposal. The concept of eco-tourism was introduced by quoting the 'Kedarnath tragedy' and the devastating impacts that conventional tourism has on the fragile ecosystems of the mountains. The team, including interns from Tata Institute of Social Sciences (TISS), Guwahati, discussed river pollution with sadhus and motivated them to create awareness about clean and green environment. The awareness programme, which was attended by more than 40 people, concluded with a cleanliness drive.

12.4 Co-Lab Workshop on Bioremediation

Ms. Reema Banerjee, Programme Coordinator, Waste Management, was invited for the Co-lab workshop conducted by the Department of Biochemical Engineering of University

College London (UCL) for sharing her experience on the gap between the technology and implementation of bioremediation projects in various sites in India.

The three day workshop (November 26-28, 2016) consisted of activities that bridged together local artists, scientists and designers to brainstorm and work on an interdisciplinary project around bioremediation in India. More specifically, it provided scientists the opportunity to learn about design thinking and ethnographic methodology in science. Designers had the opportunity to gain exposure to the lab and interact with local scientists and practitioners.

Ms. Banerjee shared the various field experiences of such remediation projects undertaken by CEE and brought out the socio-economic issues that should be considered besides the technology while starting a bioremediation initiative in India.

The workshop also had lab activities around the topic of bioremediation, short lectures on Biochemical Cycles, Biology 101 and the state of the art in Bioremediation. On the last day of the workshop, participants utilised the facilities of the Institute of Making at UCL, to make tangible prototypes to demonstrate group projects.

As part of the workshop follow-up, the UCL team visited India in February 2017, and the Waste Management team at CEE Kolkata facilitated the visit of the team to various sites near Kolkata exposed to pollution related to heavy metals. A visit to Jadavpur University was also organised to explore collaborative research opportunities in the sector of heavy metal bioremediation in the region. Various samples were also taken from prospective sites to be tested for further trials on bioremediation.

12.5 Course on Waste Management and Towards Circular Economy

Develop a module for the course of Waste Management and Towards Circular Economy, put the resource materials for the same, conduct the course for the final year students of Post Graduate Diploma in Development Management.

A module on Waste Management and Towards Circular Economy was developed by CEE on the request of Development Management Institute, Patna.

The (0.5 credit) course was conducted for the second year students of PG Diploma in Development Management, DMI, Patna. CEE Central developed the module, organised the resource materials and conducted the course. Students were taken on field visits to the BMW (biomedical waste) facility at IGIMS (Indira Gandhi Institute of Medical Science to understand door to door Waste collection by waste pickers and the landfill site of Patna Municipal Corporation. CEE also conducted the evaluation of the learning outcomes in the participants

Biodiversity Conservation

13.1 VIRASAT-3

CEE, since 2012 is working with the Gujarat Biodiversity Board to form Biodiversity Management Committees and prepare People's Biodiversity Registers (PBRs), in Jasdan Block under the project VIRASAT. Between 2013 and 2015, as part of Phase 1 and 2 of the project, CEE formed the BMCs and prepared PBRs for 35 villages in Jasdan and Vinchchiya blocks of Rajkot District.

This year as part of the Phase 3 of the project, CEE's Jasdan Field Office worked with 15 more villages. While the project's mandated deliverable focuses on formation of BMC and preparation of PBRs, CEE took up this opportunity to create awareness among communities regarding local biodiversity, traditional varieties, their medicinal uses and associated traditional knowledge.

Some of the key activities conducted during this year include:

Project Launch event: A farmers' meet was organised as an introductory event for the project with participation of about 300 people from 15 villages of Jasdan taluka. The participants included a diverse group of stakeholders such as farmers, pastoralists, traditional healers and members of existing BMCs from neighbouring villages. An exhibition on biodiversity and traditional knowledge, as well as talks by different experts was organised to discuss the importance of biodiversity in the context of livelihoods and maintaining the quality of life. The meeting provided an opportunity to discuss the project, its objectives and the role of the village community. Several essential points such as What is Biodiversity Act, Why BMC, How to prepare PBR and what is its importance, were discussed. Community members and BMC

members from the neighbouring villages who had participated in previous phases also shared their experiences.

Awareness Programmes and Preparation of PBR: For PBR preparation, local biodiversity documentation has to be conducted over three seasons in a participatory manner. Accordingly, in 15 villages, 'Biodiversity Explorations' (*Jai Vividhata Shodh Yatra*) were conducted in all three seasons. Information about local biodiversity spread across the villages was collected as per the formats provided. The entire process was very educative and helped raise community awareness about the local biodiversity and its status: helped communities understand its value, analyse threats and search for ways of rejuvenating the same. The information collected through this process has been documented in the form of PBRs, and 15 such PBRs have been submitted to the Gujarat Biodiversity Board.

Apart from this, an exposure tour was organised for the BMC representatives from each village during October 20-22, 2016, with about 56 members participating. During the tour, they visited Sundarvan (Ahmedabad), CEE (Ahmedabad), Indroda Park (Gandhinagar) and the Thol Bird Sanctuary on the outskirts of Ahmedabad.

Participation in community fairs is another key awareness programme that helps in raising awareness about biodiversity in people. As part of the project, in two traditional fairs in the Saurashtra region – where such fairs are popular - CEE Jasdan set up an information and display space.

A range of activities, such as exhibitions and various competitions, were also conducted with the primary schools of all the 15 villages

through the year. Thirty such programmes, with about 5000 children participating, were organised during the year with a focus on value and conservation of biodiversity.

13.2 Ganges River Dolphin - Conservation Education Programme

The Ganges river dolphin (*Platanista gangetica gangetica*) is listed as a Schedule-1 species in the Wildlife Protection Act 1972 and recognised as 'Endangered' by IUCN. CEE North has been working for the conservation of this species since inception as part of its river conservation initiatives. CEE is implementing the Ganges river dolphin programme with support from the National Mission for Clean Ganga and the National Ganga River Basin Authority under the Ministry of Water Resources, Ganga Rejuvenation and River Development. The project titled "Educating Schools and Community for sustainable actions for conserving habitat of the Ganges River Dolphin along the Ganga River Basin" is currently in its Phase II.

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 the states.

School Interventions: For school interventions, CEE team selected 20 locations in Uttar Pradesh and Bihar, based on the presence of the Ganges river dolphin and the need for such a programme in the area. In 10 locations selected in Uttar Pradesh were: Hastinapur (Meerut), Bijnore, Jarwal, Katarniaghat and Mahsi in Bahraich district; Gonda, Faizabad,

Kanpur, Allahabad and Varanasi. The 10 locations in Bihar were: Supaul, Begusarai, Bhagalpur, Bagaha and Bettiah (West Champaran), East Champaran, Muzafarpur, Gopalganj, Patna and Saran. Overall, 750 schools are covered under the programme.

Review Meet of NGO Partner: In June 2016, a one day regional review meet of NGO partners was organised by CEE North to review the status of the school programme which were being implemented jointly by the partner organisations and the CEE North team at the 20 locations. The partners and the CEE team shared the efforts put in, a presentation on the feedback from the programme from the schools, the challenges and the learnings. Over 20 participants representing 12 NGOs and CEE field offices in UP and Bihar participated in the workshop. A Memorandum of Understanding was signed for the next year activities in each location which included follow-ups, teachers' review meet cum workshop, activities in the schools and community level and cluster level awareness events.

Teacher's Refresher cum Review Workshop: In each school cluster location, over 35-40 schools have been enrolled by the partner NGOs and CEE team, with support from the Education department. These dolphin cluster schools are located close to the river, within 3-5 km distance. With enrollment, a two day teacher training was conducted in the 20 clusters.

To review and enable sharing of experiences by the teachers, a one day workshop was conducted in each location, with the objective of reviewing the progress of the programme, planning project activities for the next phase, re-orientation to the programme and hand holding support for effective implementation

of the programme at school and community level.

During the year 2016-17, review meets were conducted in all the 20 locations. Members of the CEE North team conducted various technical sessions and briefed the teachers on how to use the education package in classroom teaching. They further guided schools in preparing their school action plan and clusters in developing their strategy for dolphin awareness activities. Over 750 teachers participated in these meets, during which each teacher was provided an educational package containing a dolphin activity book, display poster, dolphin badge, stickers and a book mark.

Dolphin Cluster Awareness Programme: As part of the Dolphin programme, school clusters from different locations in Uttar Pradesh and Bihar organised cluster level events which included dolphin awareness rally, nukkat natak, cycle rally, 'save dolphin - save Ganga' pledge campaign, and other activities. The Dolphin schools, along with the local NGO and other partners, organised dolphin awareness activities on environment related days and during river related festivals. The cluster level awareness programmes were held in all the dolphin project locations. In some of the events, essay, painting and quiz competitions were conducted for students. School members were taken on exposure visits to the river bank in some locations with 'learning with fun' activities being conducted. More than 3000 children from Dolphin Clubs took part in these events, with many of them creatively expressing their thoughts about the conservation of dolphins through models, drawings, songs, poems, etc.

Dolphin Education Resource Centre: The project had envisaged that Ganges River Dolphin

Education Resource Centres (GRDERC) would be identified among the dolphin school clusters to act as the focal point for conservation education activities for the respective school cluster. Educational resources including books on biodiversity, posters, charts, water testing kit, awareness banner, films and others have been provided to these centres to enable students and teachers to explore and learn more about the Ganges river dolphin and its habitat, and help in its conservation. Twenty active schools have been identified as the respective cluster level resource centres and relevant material made available for the use of the dolphin schools.

Dolphin Day Events: On the occasion of Dolphin Day, CEE, with support from the National Mission for Clean Ganga (NMCG), organised events at 20 locations where the dolphin schools participated in awareness rallies and competitions like slogan writing, essay writing, painting and quiz. Students of Dolphin Clubs observed the day and also actively participated in the Wildlife Week programme, helping spread awareness amongst the masses. During the event, community members, government officials, teachers and fishing communities were urged to come together to save this beautiful animal and its home.

Development of IEC Material for Schools: As part of the dolphin initiative, CEE team developed material for schools for raising awareness and for classroom display. An environment calendar for 2017, focusing on the theme of the dolphin and its conservation under the project, was showcased to spread the message of positive action. A revised brochure was developed for the project stakeholders apprise them of the varied interventions.

13.3 Biodiversity Conservation in Maharashtra

13.3.1 Information, Communication and Education for Maharashtra Gene Bank Project

This project aims at participatory studies and conservation of various genetic resources of Maharashtra that 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 the Rajiv Gandhi Science and Technology Commission (RGSTC) of the Government of Maharashtra, this project brings together 20 local, regional, national level NGOs and scientific research institutions. CEE is implementing a cross-cutting component of Information Management Education and Communication for the Maharashtra Gene Bank (MGB) Project. The focus in 2016-17 - the third year of the project - was on development of resource material and statewide capacity building.

Educational Resource Development: A resource kit in Marathi to facilitate the School/College Biodiversity Registration process was designed and developed. This kit includes following resources:

- (a) *Shivar Feri* - Literally meaning neighbourhood walk, this is a methodology manual structured at three levels: observing and documenting the diversity of different types of biodiversity, understanding interrelationships between different elements of biodiversity in the neighbourhood and designing focused projects on topics of local relevance and interests using methods such as quadrat, point- and line-transect.
- (ii) Insect Folder - A Photographic field guide on 87 agricultural pests and 19 useful insects for 15 crops that have been selected for genetic diversity conservation under the larger project.
- (iii) Wild Vegetables & Tubers Folder - Includes information on 30 wild vegetables and six tubers commonly used in Maharashtra, with photographs, local name, botanical name, edible part, period of occurrence, habitat, type, growth habit and use. It also provides guidelines for studying wild vegetables.
- (iv) Birds Field Guide - This pocket-sized bird field guide has been designed for beginners' use during neighbourhood walks and contains 95 birds arranged ecosystem wise: wetlands, scrubs and grasslands, agricultural fields, forests, home/kitchen garden, as well as select endangered and rare species.
- (v) Pocket Booklet on Snake - focuses on similar looking venomous and non-venomous species.
- (vi) Butterflies & Moths - This pocket booklet contains descriptions of 50 butterfly species from five families and 12 moth species, with photographs, common names, scientific names, habitat and associated plant species.
- (vii) Gecko & Lizards Folder - on 12 different species of geckos and lizards, with photographs, common names in Marathi and English, scientific names and body length.
- (viii) Mushroom Folder - with descriptions of 33 different species of mushrooms with photographs.
- (ix) Frogs and Toads Folder - as identification guide.

- (x) Cloth bag with MGB logo and graphics of Jowar (sorghum) varieties *Dagadi, Kavali, Gidgyap, Maldandi, Dukari, Manthi and Pivali* from Maharashtra.

This kit also includes a register for record keeping at school levels.

Anandshala Shibir: Sixteen workshops of three day duration were organised at 12 places across the state between September and December 2016. A total of 562 participants, including representatives from partner organisations, and one teacher and two students each from 179 schools located in 17 districts, attended these workshops. Each of the 179 participating schools has been given two kits.



Kit developed for Maharashtra Gene Bank Project

Experiential sessions on conducting the *Shivar Feri*, biodiversity study techniques, constructivism in education and linkages of biodiversity learning projects with curriculum across the subjects, and a range of age appropriate activities, games and project ideas were the highlights of these workshops. Baseline development exercises, including existing levels of biodiversity Information, basic competencies and situational questions, were conducted during these workshops to contextualise biodiversity education under this project.

Mapping the diversity of names of the same biodiversity elements and of food among students and teachers from different regions of the state has generated valuable reference documentation, along with the diversity of non-cultivated food resources across the regions. This is emerging as a priority area to focus on, given the interest among the children and youth, their nutritional significance and rapid decline in both availability and associated knowledge.

(Related photographs are attached separately with names viz 1. Aquatic plant study at Navegaobandh_Re 2. Crop pest observations during shivarpheri_Re, 3. grass diversity and abundance study using quadrat method during shivarpheri_Re)

Information Management: The project has its own magazine 'Gotul' to share happenings under the project and various community stories from the project locations. The second issue of 'Gotul' was published this year and over 800 print copies were distributed to partner NGOs and their local networks, schools, funding agencies, governments officials and other interested persons. About 2500 people in CEE's network within the state received it as an e-magazine.

To further enable effective information management, a website is being developed. The website architecture was developed this year and work is underway to have it ready during 2017.

Workshop on Bio-cultural Diversity Mapping at Hivare Bajar: A three and half day long workshop was organised in January 2017 for 16 Paryavaran Shikshan Mitras (PSMs), who are school cluster facilitators associated with partner organisations. This workshop focused on learning about the basics of mapping, *Shivar Feri* methodology, documentation of bio-cultural diversity and developing a village bio-cultural map using local artistic forms. Besides building PSMs' capacities, a staggered plan emerged through this workshop towards such mapping with schools under the project.

13.4 Biodiversity Conservation Activities in Goa

13.4.1 Training of Secondary Teachers on Mangrove Ecosystem

With the support of GIZ Marine and Coastal Programme and Goa Forest Department, CEE Goa State Office organised a three day training for the teachers of secondary and higher secondary schools of Tiswadi, Bardez and Bicholim taluka. The workshop was on 'Understanding Mangroves and their Ecological Role' and 45 teachers participated in it. Various technical sessions dealing with mangroves, ecosystem services and incorporating mangroves in school curriculum, as well as field visits were conducted.

Training and Excursions for Students: As a follow up activity of the training workshop on mangroves and its ecological importance, a field excursion for students was organised at



Aquatic plant study at Navegaobandh



Crop pest observations during shivarpheri



Grass diversity and abundance study using quadrat method during shivarpheri

Dr. Salim Ali Bird Sanctuary, Chora, Goa. Five such excursions were undertaken, covering about 500 students from secondary schools and B.Ed College. Students were taken on a mangroves nature trail, during which the importance of mangroves, its associated biodiversity, its role in controlling floods, fish breeding centres and its capacity for carbon sequestration were explained.

Students were also taken to the nature information centre set up by GIZ at this site, and the panels and other educational material displayed there were discussed. The B.Ed students were asked to use this opportunity and develop teaching modules as part of their practice teaching.

13.4.2 Development of Biodiversity Management Plan for Vedanta Mines in Goa

CEE Goa State Office was asked by the Vedanta Sesa Goa Iron Ore Ltd. to undertake a two year project on 'Assessment and Documentation of Biodiversity and Development of Biodiversity Management Plan for Vedanta Mines' in Goa. Vedanta has four mining clusters covering an area of 1836.45 sq kms, from which an area of 474 sq km has been selected for biodiversity assessment. During the year, biodiversity assessment was undertaken on 10 sq km of mining area. Experts from various fields of forestry, biodiversity and microbiology were selected to guide the project. Two field ecologists along with CEE Goa staff undertook the survey of biodiversity in all three seasons. Based on the seasonal data, a biodiversity management plan has been suggested.

13.4.3 Assistance in the Development of Beach Carrying Capacity of Goa

The National Centre for Sustainable Coastal Zone Management (NCSCM), Chennai, has been entrusted by the Department of Science, Technology and Environment, Government of Goa, with a project to undertake a Beach Carrying Capacity Study in relation to tourism in Goa. Mr. Sujeetkumar Dongre, Programme Coordinator, CEE Goa State Office supported this project in gathering relevant information and conducting the analysis.

13.5 People's Biodiversity Registers (PBRs) in Andhra Pradesh and Telangana

CEE has been appointed as the Resource Agency to support Biodiversity Management Committees (BMCs) in the preparation of People's Biodiversity Registers (PBRs) by Andhra Pradesh State Biodiversity Board (APBB). CEE has been allotted two Gram Panchayats (GPs), namely, Rajam Panchayat in Butchayyapeta Mandal and Vooderu Gram Panchayat in Anakapalle Mandal of Vishakhapatnam District, Andhra Pradesh.

Telangana State Biodiversity Board (TSBB) has appointed CEE Telangana State Office as Resource Agency for preparation of PBRs in Telangana with five Gram Panchayats of Medak District, Telangana state, being allotted for the same. The documentation has been completed and the PBRs have been submitted to the five respective GPs.

The objective is to facilitate BMCs in documenting the PBRs and submitting the report to the respective BMC and APBB/TSBB to provide legal authority to the PBR. The process of documentation involved meeting with BMC members, interaction with village elders, youth groups and women's groups to collect the primary data, and also involve them

in the conservation of the village bio-resources. Secondary data was collected from the concerned departments and institutions. An important component of the project is also to identify the local Vaidyas (natural healers) and to document and preserve their traditional knowledge for future generations. In each village, at least one or two Vaidyas were identified and their traditional knowledge documented and submitted to the respective boards.

13.6 One Crore Tree plantation Campaign in Karnataka

During 2015-16, Karnataka state suffered a severe drought. Considering this fact, the state forest department initiated a drive to plant one crore tree saplings through a campaign called “Koti Vruksha Andolana” (One Crore Tree Campaign) across the state. To facilitate this campaign, CEE Karnataka developed a set of 10 posters for the forest department to motivate people to take up the plantation drive in their neighbourhood. These posters were distributed to all the government offices and 40000 government schools.

13.7 Biodiversity Conservation Activities at CEE Himalaya

13.7.1 Shail Yatra: Cultural Tradition for Biodiversity Conservation

CEE Himalaya’s Uttarkashi team participated in the annual Shail Yatra organised by five villages of the area, namely, Kuroli, Bongadi, Mastari, Kankarari and Sada, falling under Mustikaur Nyaya Panchayat, located in Bhatwari Block of Uttarkashi District, Uttarakhand state.

Since ancient times, various fairs (Thoolu) and festivals (Pandav Nitrya, Shail Yatra) are

organised every year in Uttarkashi district, whose religious beliefs and rituals are connected directly or indirectly to the surrounding environment and ecosystem. The blessings of the village gods and goddesses are believed to be essential for the survival of the village as well as the protection of the village against natural disasters and adverse environmental impacts.

The Shail Yatra is organized every year by the villagers to seek blessings from village deities, Hari Maharaj and Huneshwar. It originates from village Kuroli travelling a distance of 25km to Haronta Bugyaal situated at an altitude of 2700m above sea level. The Yatra passes through deep forests and usually takes 2-3 days to reach Haronta Bugyaal.

Tapping the opportunity, CEE Uttarkashi team participated in the Yatra to learn such practices prevalent in the region as well as make aware of the climate change impacts in the region. CEE team sensitised the villagers on waste management in such sensitive areas, the possible damage caused to the environment due to ignorance and sustainable management of sacred species of plants. On its way back, CEE team and the villagers collected all the waste from Haronta Bugyaal to Kuroli village and disposed it appropriately.

13.7.1 Indian Freshwater Turtle and Tortoise Strategic Conservation Action Planning and Red List Assessment Workshop

Dr. Abdhesh Kumar Gangwar, Programme Director, CEE Himalaya, attended the “3rd Indian Freshwater Turtle and Tortoise Strategic Conservation Action Planning and Red List Assessment Workshop”, organised by the Centre for Wildlife Studies (CWS)/Turtle Survival Alliance (TSA) India Turtle

Conservation Programme, in association with the Ministry of Environment, Forest & Climate Change (Wildlife Division), Ministry of Water Resources, River Development & Ganga Rejuvenation (National Mission for Clean Ganga) and the International Union for Conservation of Nature (IUCN)/Species Survival Commission (SSC)/Tortoise and Freshwater Turtle Specialist Group, with financial support from Madhya Pradesh State Biodiversity Board, Turtle Conservation Fund and WWF-India. The workshop was held during February 16-18, 2017 in New Delhi.

The main agenda of this meeting was to review the IUCN conservation status and the progress of the 2010 Action Plan for Indian Freshwater Turtle and Tortoises, besides developing a five year conservation action plan (2017-2021).

Dr. Gangwar contributed to the workshop during the session on capacity building for conservation of Indian Freshwater Turtle and Tortoises. He promoted the involvement of both scientific and non-scientific community at all levels for conserving them. More specific research, constructive coordination, detailed and unambiguous documentation as well as sharing of these documents and other data among agencies working for the conservation of these species and other wildlife, were highlighted as crucial steps warranting immediate attention. Other suggestions included (a) linking conservation with developmental schemes like MGNREGA, (b) roping in Panchayati Raj Institutions (PRIs), (c) encouraging them to construct ponds under MGNREGA as turtle habitats, and (d) providing the community the necessary assistance for turtle breeding.

13.7.3 Regional Workshop for NER of India on Climate Adaptation Programme and Sustainable Ecosystem

A two day Regional Workshop for North Eastern Region (NER) of India on Climate Adaptation Programme and Sustainable Ecosystems in NER was organised by the Climate Change Cell of the Directorate of Environment, Government of Manipur, and the Ministry of Science and Technology, Government of India, on April 25-26, 2016 at Imphal, Manipur state.

The workshop focused on developing a common understanding about the challenges faced by the region and a road map for participation in the policy action programmes on climate adaptation, aligning with the National Mission for Sustaining the Himalayan Ecosystem (NMSHE) and the National Mission on Strategic Knowledge for Climate Change (NMSKCC).

Dr. H. M. Homeshawar, Director and State Nodal Officer (Climate Change), Directorate of Environment, Manipur; Dr. Shirish Sinha, Deputy Director of Cooperation, Swiss Agency for Development and Cooperation (SDC), Embassy of Switzerland; and Dr. Nisha Mendiratta, Director, Climate Change Programme, Department of Science & Technology, Government of India, spoke during the inaugural session.

Dr. Abdhesh Kumar Gangwar made a presentation on "Community participation in climate change adaptation - role of local institutions, NGOs, media and experience sharing" at a session on Community Participation. He showcased CEE Himalaya's activities in partnership with IHCAP – organising capacity building workshops for

media on Climate Change and Development in the Himalayan Region during 2014-15; supporting Science Express Climate Action Special in the region in 2015; and the huge outreach these programmes achieved.

The inputs and conclusions drawn from the workshop will aid in designing the implementation of State Action Plans on Climate Change (SAPCC) and enhancing climate change knowledge networking at the state level.

14.1 Awareness Programme on Forest Fires

The first incident of forest fire in Uttarakhand was reported in early February 2017. Since then, it spread to 13 districts of the state, destroying nearly 3,000 acres of forest land. Forest stretches, agricultural fields, as well as human habitations in Rudraprayag, Pauri, Chamoli, Almora, Nainital and Dehradun districts, were the worst affected.

With vast experience in working on Disaster Risk Reduction (DRR), Climate Change (CC) and Sustainable Mountain Development (SMD), CEE Himalaya alerted the villagers and joined the local forest department in organising collective efforts to douse the spreading fire flames, and make 'fire lines'. A door-to-door programme to raise awareness on the causes of forest fires, fire safety and demonstration of 'fire-line' construction methods to prevent wildfires in the region, was also conducted.

Traditional trees like Burans (*Rhododendron arboreum Sm.*), Banj or White Oak tree, that are native to the mountain ecosystem, were promoted by the team, who also motivated the local people to regenerate the forest through planting trees native to the mountains.

14.2 Training Programme on Emergency Preparedness and Response

A training programme on 'Emergency Preparedness and Response' was organised by CARE India during September 6-9, 2016, at Sahbhagi Shikshan Kendra, Lucknow. The training aimed to build capacities of CARE India's NGO partners based in Madhya Pradesh, Uttar Pradesh, Jammu & Kashmir, West Bengal and Uttarakhand, in efficient

response during emergencies and to prepare them for deployment under the CARE Roster in times of crisis. The four day training programme was divided into lectures and presentations, group exercises, field visit and discussions with a view to provide comprehensive information on 'Emergency Preparedness and Response'.

The programme was attended by 20 participants, while, from CEE, Ms. Himani Joshi, Project Officer, CEE Himalaya and Mr. Kushpal Singh from CEE Uttarkashi attended the training programme, who presented CEE work on Disaster Preparedness and Risk Reduction in Uttarkashi district.

The first two days of the workshop were dedicated to lectures and presentations on Humanitarian Mandates, Standard Operating Procedures (SOPs) during disasters, Emergency Preparedness Plan, Assessment and Relief Distribution followed by group exercises. A field visit to Barabanki District, Uttar Pradesh, was made on the third day where a simulation exercise on relief distribution was conducted for the participants in two villages of Surtanganj Block of Barabanki District. The last day of the workshop focused on discussions related to safety and security during disasters.

14.3 Regional Consultative Workshop on Strengthening Capacity for Disaster Risk Reduction

A Regional Consultative Workshop on 'Strengthening Capacity for Disaster Risk Reduction' was organised by the UNESCO Offices of New Delhi and Kathmandu, and AMARC Asia-Pacific (the regional chapter of the World Association of Community Radio Broadcasters), on October 19-21, 2016, in

Kathmandu, Nepal, to mark the 'International Day for Disaster Risk Reduction'.

The workshop brought together government officials, experts and media stakeholders from India, Nepal, Bhutan and Bangladesh, to exchange their knowledge, experiences and good practices on disaster risk reduction; and to strengthen the capacity of policymakers, disaster management officials/workers, development and media professionals, for disaster risk reduction in South Asia. Around 20 participants from India, Nepal, Bhutan and Bangladesh attended the workshop.

Ms. Himani Joshi, Project Officer, CEE Himalaya participated in the workshop and presented the work done by CEE Himalaya in the field of disaster risk reduction, media capacity building and sustainable livelihoods across the Indian Himalayan Region. She presented the 'Rebuilding' programmes - Rebuilding Trust (Kashmir Earthquake of 2005 and J&K deluge of September 2014) and Rebuilding Faith (Uttarakhand Floods of 2013). The media capacity building workshops on Climate Change and Development in the Indian Himalayan Region and Supporting Science Express Climate Action Special were also highlighted.

The recommendations that emerged during the workshops will be presented at the Asian Ministerial Conference on Disaster Risk Reduction 2016, held during November 2-5, 2016 at New Delhi, India.

14.4 State Level Consultative Workshop on Strengthening District Disaster Management Authority

Deendayal Upadhyaya State Institute of Rural Development (SIRD), Lucknow organised a

two day State level Consultative Workshop on Strengthening District Disaster Management Authority to make effective District Disaster Management Plan at SIRD. This training programme is being conducted for all the 75 districts of the state in two phases – December 19-20, 2016 for participants from 34 districts, December 26-27, 2016 for the remaining districts.

Around 100 participants – mostly officials drawn from the District Magistrate Office as the DM is the Chairperson of the District Disaster Management Authorities (DDMA); DDMA's; District Institute of Rural Development (DIRD); Regional Institute of Rural Development (RIRD); and line departments such as Fire, Irrigation, Agriculture, Revenue, Health and Public Works - from 34 districts of Uttar Pradesh attended the first workshop. The objective of the workshop was to build the capacities of these officials so that they can contribute effectively to the preparation of a holistic, realistic and multi-sectoral disaster management plan for their respective districts. The workshop helped in establishing a basic understanding of the concepts of disaster management such as hazard, risk, vulnerability and capacity (HRVC) analysis; National Disaster Management Act, 2005; UP State Disaster Management Act, 2005; Emergency Support Functions; Standard Operating Procedures; roles and responsibilities of SDMA and DDMA's; and guidelines for preparing district disaster management plans.

Dr. Abdhesh Kumar Gangwar and Ms. Himani Joshi of CEE Himalaya, were invited as resource persons to facilitate a session on Disaster Management Acts held on December 20, 2016, which had about 25 participants.

They discussed the similarities and differences between National Disaster Management Act, 2005 and UP State Disaster Management Act, 2005; recommendations for further strengthening the State Act; and the efforts of the state in disaster mitigation and management. The recommendations were subsequently presented at the concluding plenary session of the workshop and will help improve the State DM Act.

15.1 GEF-UNDP SGP Operational Phase-5 (OP-5) Programme

Background: Centre for Environment Education (CEE) is acting as the Implementing Partner for the Global Environment Facility (GEF)-United Nations Development Programme (UNDP) supported Small Grants Programme (SGP) since the year 2000. The SGP seeks to support initiatives that demonstrate community-based innovative, gender sensitive and participatory approaches, and lessons learned from other development projects, that lead to reduced threats to the local and global environment. Currently, the GEF-UNDP SGP is running in 126 countries across the world.

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 a significant difference in their livelihoods and the environment. The SGP influences and supports the global climate interventions through thematic areas, like Arresting Land Degradation, Biodiversity Conservation, Climate Change and Persistent Organic Pollutants (Chemical Management).

In 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 through capacity building, trainings and guidance workshops, to acquaint the community of the global environmental benefits through local initiatives, and adopting those actions to result in measurable impacts on the ground.

Status of GEF-UNDP SGP OP-5 Programme

The GEF-UNDP SGP OP-5 programme of 5-year duration, with a funding budget of US \$5 million, entered its fifth year of operation. The planned grant allocation target of US \$3.691 million has been met with 100%, and a total of 102 projects have been approved on the ground with a synergistic and integrated approach for Biodiversity Conservation, Climate Change - mitigation & adaptation, Land Degradation and Chemical Management, with livelihoods as the cross-cutting area. Out of these 102 approved projects, 53 have been completed and 49 are at different stages of completion.

Against the total GEF budget of US \$5.00 million, a delivery of US \$3.843 million has been effected leaving a balance of US \$1.157 million which is expected to be completed in the year 2017. The focus now is mainly on quality monitoring of activities on the ground with the objective of meeting all the success indicators listed in the project document.

Against a grant of US \$5.00 million, the project leveraged US \$16.00 million as co-financing from communities, NGO partners, governments, banks, private sector and other donor agencies and expanded the scope of activities on the ground.

The capacities of NGOs/CBOs were enhanced to understand the climate change interventions and to find technological solutions at the community level by organising 34 Guidance-Capacity building workshops. As a result of SGP activities, a total of 1,750 women Self

Help Groups (SHGs) have been formed, while 198 Panchayats have adopted village level resource use planning with an integrated development approach.

Enhancement of biodiversity has been achieved in nearly 65,000 hectares of land around protected areas, community conserved areas, sacred groves. New salt tolerant crop varieties and local varieties have been conserved through a range of community-led measures. Nearly 74 new products have been made through local biodiversity use and systems. About 201 natural resource based products were developed and linked to markets against the target of 75 by nearly 21 NGO partners.

About 16,731 MTs of CO₂ emission has been reduced through adoption of renewable energy technologies against the target of 12,277 MTs. Another 124,024 MTs of CO₂ emission has been reduced through energy efficient technologies. About 27,000 MTs of CO₂ emission was reduced by the setting up of 12,110 cook-stoves. Around 324 large size cook-stoves also reduced 1,134 MTs of CO₂ emission (140 by Manuvikasa, 114 by Peermade and 70 by Earthwatch).

Against the target of 100,000 hectares, 93,000 hectares of land was brought under sustainable land and resource management. Another 65,500 hectares of dry agricultural land has been brought under sustainable land management with improved vegetative cover.

As part of the project, 645 biogas units, 118 vermi-compost pits (36 pits constructed by NEER Foundation alone), 116 water harvesting systems, 112 water tanks, and 18 check-dams and village ponds have been set up during the reporting period. About 3000 metres of *door-bandi* were completed, more than

100 dry wells re-activated, nine Grain Banks established and 50 energy-efficient jaggery furnaces set up. Five small micro hydels of 5 kW each and 21 water mills have been installed while another 15 water mills are under installation.

After constructing 823 km of roads from plastic waste, Sarthak in Bhopal received a contract to assist in the construction of about 1,500 km of roads using tonnes of gathered plastic waste mixed with regular road construction material. This technology is now being followed by the government in most parts of the state.

Muskan Jyoti of Lucknow (Barabanki District) produced 4,59,693 kg of dry manure (worth Rs.32,17,851) and 57,412 litres of liquid manure (worth Rs.22,96,480), and treated 29,08,106 kg of waste during the two years of project duration. In all, 1275 farmers are now using organic manure in 155 villages.

More than 23 exposure visits were organised for our project partners for cross-learning and benefitting from understanding successful initiatives. To cite examples, Arti-Pune trained STD-Mandi in October 2016 on the efficiency and quality production of biomass briquettes from pine needles which is being independently done now by STD-Mandi. Another partner (Educatr) participated in an exposure visit to SEVA in November 2016 to learn about fodder varieties and their cultivation and have taken up the same. More than 100 resource persons (sector experts) have guided the partners and CEE's internal staff on new technologies and how to access them.

The Project Identification Form (PIF) has been prepared for OP-6 programme and shared with the Ministry of Environment, Forest & Climate Change and UNDP for which a budget of US \$5.0 million has been allocated. This PIF has

been formally submitted by UNDP Headquarters to GEF Council, and is understood to have been technically accepted.

The Civil Society fraternity accepts the SGP as a flagship programme and during the SGP Meet organised during March 15-17, 2017 at Ahmedabad, about 185 NGOs/CBOs participated and shared their learnings and experiences, including SGP participants from neighbouring countries like Afghanistan, Bangladesh, Sri Lanka and Nepal.

15.1.1 Small Grants Programme – CEE Central

The GEF UNDP/SGP programme anchored through the National Project Manager (NPM) based in New Delhi is supported through a more decentralised system of Regional Offices of CEE in order to reach out locally to the remote, unreached and inaccessible, degraded areas of the country, forest tribal communities by the national parks, protected areas and wildlife sanctuaries, etc. It aims to provide a countrywide coverage and to also address the local issues and national priorities more appropriately.

To access the grant, NGOs/CBOs submit a proposal to the regional offices, which are scrutinised and submitted to the Regional Committee. The Regional Committee then chooses proposals for Approval, Revision or Rejection, after which they undergo further scrutiny at the national level through the National Steering Committee (NSC) and Country Programme Manager (CPM). The monitoring of the implementation of project activities by NGO's is conducted by the regional coordinator.

At the regional office in CEE Central, an online regional committee meeting was conducted

during the year. Mid term reviews of six organisations - two from Madhya Pradesh, four from Maharashtra (5 NGOs, 1 CBO) - and final evaluations of three NGOs from Madhya Pradesh, one each from Maharashtra and Chhattisgarh were undertaken during the year and the grants were released accordingly.

In February 2017, a national level meeting for mainstreaming grassroots innovations was held in Ahmedabad. From the central region, thirty NGOs who are SGP partners with current grants, or have had grants earlier, attended the meeting.

15.2 COMDEKS Programme

The COMDEKS (Community Development and Knowledge Management for the Satoyama Initiative), a Japanese funded programme to support landscapes management in Uttarakhand entered into the last year of operation (4th year) and the entire budget of US \$255,000 was fully utilised. 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 programme is executed by the United Nations Office for Project Services (UNOPS) and CEE acts as the National Host Institution (NHI). It follows the SGP Operational Guidelines and operates like the GEF-UNDP SGP programme, and seeks the guidance from the GEF/SGP National Steering Committee chaired by the MoEF&CC, GoI.

All the seven NGO-managed projects that were approved in Uttarakhand were completed with the three types of landscapes - spanning

from lower, middle to higher mountainous terrains - achieving the expected outcomes listed in the Landscape Strategy that was specially developed before the programme was taken up. An impact assessment study-cum-evaluation has been completed after comparing with the baselines that were developed at the start of these projects and the evaluation shared with COMDEKS Headquarters.

An external evaluation team is now expected in May 2017 from COMDEKS Headquarters to evaluate the landscape approach adopted in the programme and provide their inputs which will serve as a guidance in the next phase of SGP's OP-6 programme, whose major focus is expected to be on the landscape approach.

16.1 Training and Capacity Building

16.1.1 Digital India Campaign in Uttarkashi

On the occasion of National Youth Day, January 12, 2017, as a part of larger initiative of Digital India initiated by the Prime Minister, CEE Himalaya conducted a campaign on Digital Payment in Kuroli village, Uttarkashi District in Uttarakhand state. The purpose of the campaign was to create awareness in the residents of the village, especially the youth, on the Digital India programme. Around 25 people comprising of youth, women and elderly people attended the campaign. The topics covered during the campaign include the concept of digital payment; types, advantages and future prospects of digital payments in India; and the various applications digital payment can be put to.

CEE Himalaya Team also promoted the use of mobile phones and other information and communication technologies (ICT) in disaster management, since ICT can play a vital role in all aspects of disasters from prevention, mitigation and preparedness to response and recovery.

CEE Himalaya also initiated the formation of WhatsApp and SMS groups in the villages, schools and panchayats, to connect them with the district and state disaster management authority, so that the local authority can send alerts/warnings on rainfall, water level rise and vulnerable areas in the event of a disaster.

6.1.2 Workshop on Documentation and Report Writing for Teachers

A three day module on Documentation and Report Writing, specifically designed for teachers and formal education practitioners,

was offered for a group of about 25 teachers. Over a four month duration, the module provided the participant teachers adequate time for hands-on training sessions, to apply the learning in their school work and come back to discuss their experience.

The workshop focused on three forms of documentation — written, photography and videography. As part of the workshop, the teachers undertook school-based assignments and developed written reports (in a variety of forms), clicked photographs for a pre-identified learning purpose, and produced very short teaching-learning videos.

6.1.3 Teacher Training in Social Science

This training programme was supported by Gujarat Council of Educational Research and Training (GCERT). Gujarat government had implemented the “Gunotsav” programme since the last six years, to bring about change in the quality of primary school education. Of the many areas of intervention for implementing the quality education programme, CEE and GCERT collaborated to provide in-service teacher training in Social Science. This training included the concepts related to the subject, subject content, lesson planning and various methodologies for classroom teaching including activity based learning. The aim of the training was to bring about quality education through improving the capacity of teachers in the subject, methodology and teaching skills. The programme sought to train all the subject teachers of classes 6-8 in the state on content, teaching skills and teaching methodologies for social science.

Key points of training: The training programme provided the teachers with current

developments in their subject, and ideas to conduct a range of activities that can help children understand the concepts dealt with in their school subjects and relate it to the real world. This, it is believed, will help create interest in students in social science subjects. The topics covered included: Subject content, Methodology, Pedagogy and Creative Educational Environment. Methodologies included lectures, focal group discussions, outdoors as an educational approach, star gazing, nature trail, games, role plays and others.

Growth Strategy of 2016-17: This year, two different strategies were employed to cover all the subject teachers in the state as well as DIET lecturers.

a) Cascade Model: CEE trained a total of 120 teachers and DIET lecturers as master trainers, who in turn trained 20,000 teachers in the state through the cascade model.

b) Face to Face Training Model: More than 800 primary teachers and DIET lecturers across the state participated in the three day residential training programmes held in different locations of Gujarat, such as CEE's camp site at Beyt Dwaraka and Bakore, Killad camp site near Dang, Sembalpani near Ambaji, and Serenity Library near Gandhinagar. Twenty such training programmes were conducted to cover 800 teachers during the period September 2016 to March 2017.

The training kit provided to the teachers included books, Navigator Compass box, a pen drive with subject related animations and movie, and an activity manual.

6.1.4 Young Environmentalists' Conference

National Bal Bhavan (NBB - Nonformal Learning Centres located across the country) invited CEE to organise their annual Young Environmentalists' Conference on Smart Cities — Sustainable Cities at CEE Ahmedabad. The Conference was held during March 24-26, 2017. The objective of the Conference was to get children interested in various aspects of a city and the challenges and opportunities it provides in terms of 'smartness' and sustainability.

The three-day conference included plenaries, thematic sessions and visits (Sabarmati Ashram, Adalaj Vav, Sarkhej Roza, River Front Park and BRT Bus Station). Students were divided into four groups — Lothal, Varanasi, Pataliputra and Kaveripoompattinam — for attending the thematic sessions. The sessions were: Story of Ahmedabad; Understanding Cities; Governance and Citizenship; Climate Change and City; Waste or Resource?; Urban Biodiversity: Health, Nutrition, and Hygiene; and Sustainable Urban Transportation. Students also put up an exhibition on the theme of Smart Cities and City Markets.

About 118 students and 29 teachers from 26 Bal Bhavan centres from the states of Andhra Pradesh, Bihar, Diu, Goa, Gujarat, Haryana, J&K, Jharkhand, Karnataka, Maharashtra, Mizoram, Odisha and Tamil Nadu participated in the Conference. As part of the workshop kit, the teachers received a comic *The Urban Planet – How cities save our future*, which were provided by the German Advisory Council on Global Change, Germany. The goal of the cities in this comic is to find pathways for a transformation towards sustainability.

6.1.5 Training Programme for Eco Club Teachers - Jajpur, Odisha

CEE Chhattisgarh facilitated a two-day refresher training for Eco Club teachers in two districts of Odisha with support from the Tata Power Community Development Trust. The training included project based learning, planning of projects for schools, launching of the Power Count Challenge campaign, inauguration of an exhibition on school project initiatives, and distribution of awards to the best school projects.

6.1.6 Green Teacher Diploma in Environment Education

CEE Central Regional Cell is a study centre for the Green Teacher Diploma Course, a distance learning programme in Environment Education for in-service teachers and educators. The 2016 batch of the Green Teacher Diploma course started with the first contact session for the participants at the Pune study centre. As the majority of the participants were from schools in urban areas, the course was oriented towards urban sustainability themes. The first contact session dealt with the theory of ecology, environment education methodologies and approaches, education for sustainable development and resources for environment education. There were field visits, surveys, audits and slideshows to elaborate on the issues of urban transportation, water, waste management, urban biodiversity, energy and climate change, and governance structure. The second contact session focused on discussing environmental education projects that the participants were expected to undertake with the students at their schools as part of this blended learning course. The project ideas discussed included personal hygiene, waste management, water

conservation and noise. The participants were provided guidance for the projects they executed through counselling sessions.

6.1.7 Sustainability Exchange Programme 2017

The Communication for Sustainable Development group at CEE Ahmedabad designed and hosted a Sustainability Exchange Programme (SEP) for 20 students of Central Queensland University (CQU) during January 5-18, 2017. The students and the three faculty members accompanying them were from the Teacher Education, Environment Studies and Digital Communication streams of CQU.

This programme is designed to provide the participants with an exposure to the social, environmental and cultural diversity of India in their respective fields with a view to understand sustainability. SEP 2017 consisted of classroom sessions and field visits related to the respective subjects of the participants. The subject sessions held at CEE Ahmedabad campus, were a balance of lectures, activities and demonstrations.

The Environment Science students had sessions on urban waste management, which was supplemented by visits to (a) Ahmedabad Municipal Corporation along with an interaction with the officials to understand how Ahmedabad city manages its waste, (b) a recycling site – ‘Let’s Recycle’, and (c) SEWA-Mahila Housing Trust (MHT) to understand women and urban resilience. They also visited Indroda Park in Gandhinagar to understand the educational value of an urban green centre. The Teacher Education students visited two schools - Mahatma Gandhi International School and F.D. High School, as well as I D Patel Teacher Education College. This helped

them understand the differences and similarities in curriculum and pedagogy in the education systems of India and Australia. The Digital Media students undertook two projects – documentation of the SEP and a short video film on CEE and its activities. Common visits for the two groups included CEE's *Gramshilpi* project in Karoota, Sundarvan (A Nature Discovery Centre), Bakore Camp site of CEE, and Gandhi Ashram.

The students and the faculties participated in the Vibrant Gujarat Global Summit 2017, where they attended a session on 'Smart and Livable Cities' and the trade show.

Cultural experiences such as Heritage Walk in the old city area of Ahmedabad, celebration of Uttarayan – the Kite Festival, and pottery making and Warli painting sessions, were also part of the programme. This was in addition to a special Bollywood evening to showcase a popular movie with dance and music, followed by a dance session on Bollywood songs.

Gujarati language sessions were specially arranged for them to learn a few common phrases and terms. The programme culminated in a valedictory session which was rounded off with a dinner at Vishala – a heritage restaurant that serves traditional Gujarati food in a village setting.

The feedback of the students and faculty at the end of the programme brought out the impact the experience had on them. Many of them considered the experience a life changing one. They were impressed with the way schools and organisations find solutions to the challenges they face even with limited resources.

6.1.8 Wetskills India 2017

The Wetskills Water Challenge is a two week long programme for students and young professionals from all over the world with a passion for water. This is an innovative networking approach for those who are keen to know more about water and related challenges.

The Wetskills programme in India is a collaboration between Netherlands Enterprise Agency, Wetskills Foundation and CEE. The programme has been supported by Gujarat Pollution Control Board (GPCB), Netherlands Business Support Office (NBSO), Silver Oak College of Engineering and Technology and many other organisations. The first edition of the programme was organised in December 2015 at CEE while the second edition was organised during January 2-13, 2017, coinciding the Vibrant Gujarat Summit.

The Wetskills India 2017 programme focused on finding creative solutions for water challenges by mixed teams of students and young professionals from Netherlands and India. It posed five cases of water challenges in Gujarat to them. The participants visited the respective sites, interacted with the stakeholders and brainstormed innovative solutions for the challenges. A jury was formed to select the best case presentation from the five.

The five cases on which the teams worked were:

- Sustainable water resource management in the coastal areas of Gujarat
- Upgradation of the Common Effluent Treatment Plant (CETP) at Odhav Enviro Projects Limited (OEPL)

-
- Improvement of water intake at the Kotarpur Water Treatment Plant, Ahmedabad Municipal Corporation
 - Rainwater harvesting at Silver Oak College of Engineering & Technology, Ahmedabad
 - Improvement of the 180 MLD Sewage Treatment plant, Pirana, Ahmedabad

The final event of Wetskills 2017 was organised at the Vibrant Gujarat Summit with the august presence of people from academia, industry, NGOs, media and other fields. During the event, Kartikeya Sarabhai, Director of CEE, was declared as the Wetskills International Ambassador.

The case of rainwater harvesting for efficient water usage at Silver Oak College of Engineering and Technology was selected as the best case presentation.

6.2 Networking

6.2.1 ESD ExpertNet

ExpertNet is a four-country network consisting of Germany, Mexico, South Africa and India, that connects ESD experts in a global partnership to promote the international exchange of ESD practices and develop transnational approaches and strategies. Engagement Global of Germany facilitates the network. CEE has been a partner organisation of the network since its inception.

As a member of the ESD ExpertNet, Rajeswari Gorana participated in the National Workshop held in New Delhi during May 19-20, 2016. She also participated in the 11th Annual ESD ExpertNet Meeting held in New Delhi during November 12-19, 2016 2017 were discussed.

As part of the ESD ExpertNet, a mentoring programme is being developed for training and capacity building of in-service

professionals interested in ESD and SDGs; this will be offered in a virtual and face to face format from the coming year. A moodle platform and a curriculum is being prepared for this programme. Rajeswari Gorana attended the conceptualising meeting for this in Frankfurt in July 2016.

Since its inception in 1984, CEE has UN organisations on several short and long term projects, ranging from trailing new ideas and models at the local level to networking at the national and international level. CEE works with UNESCO, UN Habitat, UNICEF, UNEP, UNDP and other organisations.

17.1 United Nations Decade of Education for Sustainable Development (UN DESD) (2005-2014)

CEE was appointed the nodal agency for the implementation of UNDESD in India by the Indian National Commission for Cooperation with UNESCO, Ministry of Human Resource Development, Government of India.

As part of the UNDESD, CEE launched the Journal of Education for Sustainable Development (JESD) in 2007; it is being managed by CEE and published by SAGE.

CEE organised several international conferences during the decade which were well attended and strove to advance the cause of ESD across countries.

In response to the call of the United Nations University (UNU) for the development of regional networks to promote ESD through research and capacity building, CEE initiated several Regional Centres of Expertise (RCEs) with varied focus like biodiversity, urban sustainable development and others.

17.2 CEE and the Rio Conventions

17.2.1 CoP 22 – UNFCCC

CEE participated in the 22nd Conference of Parties (CoP) of the United Nations Framework Convention on Climate Change (UNFCCC),

held in Marrakech, Morocco, during November 7-18, 2016.

CEE organised the opening side event at the India Pavilion with the theme of the first session being 'Sustainable Lifestyles and Climate Justice'. The session discussed the various factors that go into developing and evolving a sustainable lifestyle. The discussion also focused on how education had a major transformative role to play in this process. This would involve not just formal education, but also non-formal and in-formal education. The session concluded that more evidence of the role education played in achieving climate change adaptation and mitigation was needed.

Mr. Kartikeya Sarabhai mentioned that it was largely due to the efforts of the Prime Minister of India that lifestyle was included in the Charter of the Paris Agreement, 2015. Ms. Adriana Valenzuela, UNFCCC, pointed out that guidelines had been developed for Article 6 focal points, (on education, public awareness and empowerment) which would be launched during the COP at Marrakech. Representatives from The Energy Resource Institute (TERI), Mr. Sanjay Seth and Ms. Swati Agarwal, highlighted the fact that most of India's infrastructure is yet to be built and hence issues of lifestyle can be integrated in the new developments. Mr. Alan Reid of Global Environment Education Partnership (GEEP) spoke of how education also needs to focus on values and a larger world view. Ms. Vijeta Rattani from Centre for Science and Environment (CSE), shared data on consumption patterns in the USA and brought out their gross wastefulness.

17.2.2 CoP 13 - UNCBD

CEE participated in the 13th Conference of Parties (COP) of the United Nations

Convention on Biological Diversity (UNCBD) held in December 2016 at Cancun, Mexico. At the conference CEE organised a main side-event at the main conference venue on:

Hand Print: Positive Action for Sustainability: This event discussed how the Handprint, which has evolved as a powerful educational tool, has the potential to measure the contributions of groups and individuals to biodiversity conservation and sustainable development. It also discussed ways of going about systematically gathering the data required to elevate the Handprint to the status of a more quantitative tool and how global sustainability networks can play a role in it. The panel was chaired by Dr. (Ms) B. Meenakumari, Chairperson of National Biodiversity Authority (NBA) of India. Mr. Neil Pratt, Senior Environmental Affairs Officer, CBD Secretariat, also graced the event and gave his insights on why is there a need for a tool like the Handprint. He spoke about how the Handprint is a powerful tool that helps to quantify the efforts towards conservation. He also highlighted the importance of such a quantitative tool as it will motivate people to do more.

CEE also participated in the Communication Education and Public Awareness (CEPA) fair at the COP where CEE showcased its work in the field of biodiversity education through a poster and publication display at the fair. CEE also organised two side events at the CEPA fair as follows:

Mainstreaming Biodiversity in Education for Sustainable Development: This panel discussion focussed on taking advantage of ESD to facilitate the mainstreaming conservation of biodiversity, and moving society from awareness to action. The panelists who came from different countries and

backgrounds shared case studies which illustrated different approaches of mainstreaming biodiversity conservation across stakeholder groups.

Mr. Laurent from WWF Africa chaired the session. The other panelists were Ms. Karen Keenlyside, IUCN CEC member and Climate Change Advisor at Parks Canada; Mr. Fidel Ladron from Save our Sharks, Mexico; Ms. Patricia Charvet representing the RCE (Regional Centre of Expertise), Curitiba, Brazil; and Dr. Shailaja Ravindranath, Sr. Programme Director, CEE South Regional Office, Bangalore, India.

Biodiversity Education in Schools: This event brought together global experiences on drawing schools into the CEPA process. The panelists shared examples from across the globe of innovative approaches to biodiversity education in schools.

The panelists were Mr. Mateusz Banski from CEPA, CBD; Prof. Carolina Lopez, RCE Borderlands, Mexico; Mr. Bernard Coombs, ESD expert at UNESCO, Paris; Mr. Teppei Dohke, IUCN, Japan; Ms. Katia Cosdourier Real, President, Fundacion Ecologica Bahía Principe, Mexico; and Mr. Kedar Champhekar, Programme Officer, CEE, Ahmedabad, India.

Other panelists included Dr. Unnikrishnan Payyappallimana, Research Coordinator, United Nations University-Institute for the Advanced Study of Sustainability (UNU-IAS); Ms. Karen Keenlyside, IUCN CEC member and Climate Change Advisor at Parks Canada; Ms. Yolanda Teran Maigua, Indigenous Womens' Organisation, Andes, Chinchasuyu and member of the informal advisory committee to CEPA, CBD; and Ms. Yolanda Moreno, Brahmakumaris, Mexico.

17.3 Global Action Plan (GAP)

The Global Action Plan (GAP) was launched at the end of the Decade by UNESCO as a programme to work with key partners in five Priority Action Areas:

1. Advancing policy
2. Transforming learning and training environments
3. Building capacities of educators and trainers
4. Empowering and mobilising youth
5. Accelerating sustainable solutions at local level

Mr. Kartikeya Sarabhai, Director, CEE is the co-chair of the first Priority Action Area – Advancing Policy.

- At the national level, CEE provided inputs for NITI Aayog's (National Institution for Transforming India) 15 Year Vision Document, 7 Year Strategy and 3 Year Action Plan for the environment sector in the country.
- Inputs were also provided to the MoEF&CC for the Sustainable Sand Mining Management Guidelines.
- CEE supports the Ministry in developing the standards for the Eco mark - an Eco-labelling scheme being developed by the Ministry for easy identification of environmental friendly products.
- At the state level, CEE has entered into an MoU with Gujarat Pollution Control Board for creating awareness among people on idol immersion (as part of Ganesh Chaturthi festival) and educate industries on new pollution and environment related norms and rules.
- CEE's Urban Group contributed a case study on Ahmedabad and Pune to the State of the World 2016 Report: 'Can a City be Sustainable?' by the World Watch Institute. The report was launched in Ahmedabad on January 18, 2017, along with a panel discussion on 'Ahmedabad: Towards Sustainability and Climate Responsibility'.
- CEE developed two background papers for the Global Education Monitoring (GEM) Report, 2016.
- CEE regularly offers courses sustainable urban development and environment at CEPT University, under the UNESCO Chair on ESD and the Human Habitat.
- CEE hosts the secretariat of South Asia Youth Environment Network (SAYEN). The memberships for this are achieved through SAYEN as well as other networks created by CEE offices and Earth Charter Youth Network. UNEP supports CEE to carry out activities through SAYEN in the South Asia region.
- CEE and Indian Youth Climate Network (IYCN), with support from Heinrich Boell Stiftung (HBF), organised the local level Twelfth Conference of Youth (COY 12) India in Ahmedabad at CEE campus from November 4-6, 2016, with the focal point on 'Sustainable Lifestyles'. COY is an annual meet which takes place before the yearly UNFCCC, Conference of Parties (COP).
- CEE, with UNFCCC and UNESCO, developed case studies on climate change mitigation, which highlight the role of education in climate change mitigation and adaptation.

17.4 International Conference on ESD for Transforming Education for Children and Youth

CEE organised the International Conference on Education for Sustainable Development for transforming education for Children and Youth, in partnership with Foundation for Environmental Education (FEE), during September 16-18, 2016, at the CEE campus.

It **highlighted action by** various groups around the world that are using the Handprint: positive action towards sustainability. The conference recommended inputs for the five priority action areas of GAP. The conference was an opportunity to strengthen ongoing partnerships and forge new ones, and launch new initiatives. Some of these initiatives include:

Action against Violence: A Gandhian Pedagogy: A three year long programme is being planned for youth and children in schools to understand the nature of contemporary violence and possible non-violent action against it, and also form a community of practice for it.

Partnerships for Global Citizenship for Sustainability (GCS): To create partnerships for GCS, especially with the Foundation for Environment Education (FEE) network, to open it up to schools in several countries. GCS promotes ideas to enrich students academically and culturally and thereby promote global collaboration in Sustainable Development Education. It also aims to explore the diverse, innovative pedagogies and assessment approaches to Global Citizenship Education

Mainstreaming ESD in the formal education system: During DESD, many experiences have been generated that can contribute to

reorienting formal education to impart skills and knowledge for achieving SDGs. The conference provided a platform for sharing such experiences.

17.5 Global Education Monitoring (GEM) Report

The 2016 Global Education Monitoring Report (GEM Report), *Education for people and planet*, was launched in Delhi on September 15, 2016, by the Secretary (School Education and Literacy), Dr. S. C. Khuntia. He mentioned that while the report was disquieting in terms of the gaps between the goals and the achievements in the education sector globally, it is being seen positively in terms of the challenges it poses for all countries including India.

Mr. Shigeru Aoyagi, Director of the UNESCO Delhi Office attended the launch event organised by UNESCO and CEE. Mr. Aaron Benavot, Director, GEM Report, presented the key highlights of the Report which was followed by an interactive session with a panel; the discussion was moderated by Mr. Kartikeya V. Sarabhai, Director, CEE. The panelists included Prof. Hrushikesh Senapaty, Director, NCERT, who spoke about the learning assessment system that focuses on quality indicators to be introduced in the formal education system to improve the quality of education. Prof. Chetan Vaidya, Dean, School of Planning and Architecture, Delhi, stressed the need for urban planners to make the connection with education. Prof. Peter D'Souza, Director at the Centre for the Study of Developing Societies, Delhi, talked about the need to include perspectives and approaches from the South. Mr. Sanjay Kumar, Director, SEWA Bharat mentioned that it was important to strengthen the link between

education and livelihood opportunities, especially for women and girls. Dr. Prithi Nambiar, Executive Director, CEE Australia Inc., talked about the urgent need to create space in formal systems for extracurricular programmes that could directly address SDG 4.7.

The India launch of the GEM Report was held at CEE Ahmedabad on September 16, 2016, with a presentation of the report by Mr. Aaron Benavot.

17.6 International Conferences/ Meetings Attended by Director, CEE

Mr. Kartikeya Sarabhai, Director, CEE, participated in several international conferences and meetings during the year. A few are highlighted below.

- ***4th Dialogue on Action for Climate Empowerment at Bonn – May 15-19, 2016:*** He made a presentation on ‘Science Express Climate Action: A mobile train exhibition on climate change travelling through India’.
- ***Global Citizenship Education Working Group – Brookings Institution, Washington, USA – May 23, 2016:*** Attended the meeting with Kate Anderson on the Learning Metrics Task Force.
- ***GEM Report – First Meeting of the New Advisory Board, Paris – June 1-4, 2016:*** Attended the meeting chaired by Jeffrey Sachs.
- ***GAP, Paris – June 3-10, 2016:*** Attended the Meeting of the Partner Networks Co-Chairs of the Global Action Programme on ESD.
- ***Meeting of the CBD Informal Advisory Committee on CEPA at Montreal, Canada:*** This meeting included a workshop to explore messaging approaches for specific target groups in the context of the different Aichi Biodiversity Targets.
- ***IUCN World Conservation Congress 2016 at Honolulu, Hawaii, USA – August 31-September 6, 2016:*** On September 2, he was conferred the IUCN Brandwein Medal Award by Brandwein Institute and IUCN-CEC for his contributions to conservation.
- ***Global Environmental Education Partnership (GEEP) and NAAEE Annual Conference at Madison, USA – October 16-23, 2016:*** Attended the conference
- ***PAGE Ministerial Conference at Berlin, Germany – March 26-30, 2017:*** Attended the Partnership for Action on Green Economy (PAGE) Ministerial Conference 2017, whose theme was ‘Inclusive and Sustainable Economies Powering the Sustainable Development Goals.’ This meeting was attended by about 40 ministers, chief executive officers (CEOs) and other high-level representatives from UN agencies, NGOs and trade unions, along with over 300 sustainable development experts.

18.1 Material Development – CEE Himalaya

Under the 'Rebuilding Faith' programme, several publications were brought out by CEE Himalaya.

Articles

'*Rebuilding Faith in Uttarakhand*' - a feature article, under the subject line 'Improving Living Conditions', appeared in VIVECHANA, a CSR magazine of JSW Foundation. The write up captured the rehabilitation work undertaken by CEE Himalaya with support from JSW Foundation in Uttarkashi, post-June 2013 Uttarakhand floods.

'*Forest Fires: A recurring disaster in the state of Uttarakhand*' by Abdhesh Kumar Gangwar in *Geography & You*, June 2016 (Iris Publication Pvt. Ltd., New Delhi)

'*Disaster Resilient and Climate Smart*' by Abdhesh Kumar Gangwar and Himani in *Geography & You*, May 2016.

Books/Booklets

Rebuilding Faith: A CEE-JSW Rehabilitation Programme for Flood Affected People in Uttarkashi District, Uttarakhand - A CEE Himalaya Publication – 55 pg

Vidyalaya Aapda Prabhandan (Hindi): Disaster Management Plans of 50 Schools of 3 Blocks of Uttarkashi District, Uttarakhand – 345 pg

Gaon Aapda Prabhandan Yojna (Hindi) Village Contingency Plan of 5 Villages of Bhatwari Block, District Uttarkashi, Uttarakhand - A CEE Himalaya Publication – 148 pg

Year Planner and Labels

Book label stickers on DRR Preparedness – A set of 36 stickers on a sheet. Disasters covered are fire, thunder and lightning, landslide, earthquake and flood - A CEE Himalaya Publication

Prakritik Aapdayen: Kabhi Bhi! Kahin Bhi - A DRR Preparedness Year Planner 2016-2017

Achieving ODF Environment - Year Planner 2016-2017 on Water, Sanitation and Hygiene, promoting 'Open Defecation Free' environment - A CEE Himalaya Publication

18.2 Other Publications

18.2.1 ENVIS Swachhta Booklet

CEE ENVIS Centre brought out a booklet *Ideas for a Swachh School* as an initiative to promote the national campaign, 'Swachh Bharat: Swachh Vidyalaya (SBSV)' of the Government of India. It explains *swachhta* or cleanliness in the context of a school and gives 55 steps towards a *swachh* school. Written in simple language, the booklet can be used by school managements, teachers and students.

18.2.2 Material Development – CEE Rajasthan

A set of two booklets in Hindi on 'Sustainability and Water' and 'Sustainability and Biodiversity' was developed and distributed to 300 schools by CEE Rajasthan as part of the NGC programme in the state.

Institutional Development and Support

19

19.1 CEE – Information Service Centre (CEE-ISC)

CEE-ISC has been established with a view to provide and disseminate information on Environmental Education (EE) and Education for Sustainable Development (ESD) and related areas. It caters to the needs of educators, researchers, decision makers and the general community.

ISC has a rich collection of books, journals, periodicals, reference books and children's books in English, as well as books in Hindi and Gujarati.

During the year 2016-2017, ISC continued to renew the subscriptions of journals and magazines. No new books were acquired during this period.

The collection of books at ISC now stands at approximately 20400. The periodicals number about 25 while the CD/DVD collection is around 510.

19.2 Human and Institutional Development (HID) Activities

- Several meetings of the Programme Directors' Forum (PDF) were held during

the reporting period to discuss institutional matters.

- Two meetings of CEE Management Committee (CMC) were held, in November 2016 and in March 2017, to discuss institutional and management issues and develop strategies to enhance system improvement.
- A national recruitment process was carried out for recruiting programme and administrative staff advertised for various levels.
- A 10 day Orientation Programme was held for 30 new recruits in September 2016.
- An internal training workshop on 'Rapporteur' was conducted for Programme Officers in September 2016.
- Training on 'Use of Smartsync Pro' to synchronise data and backup was conducted for internal staff.
- Training on 'Use of Tally Software' was organised for staff members.

The following staff members were nominated for external training programmes and workshops.

Sr. No	Name	Topic	Organising Agency	Location
1.	Mr. Yogendra Trivedi	Contextualising SD Goal 16	Janvikas	Ahmedabad
2.	Mr. Ashwin Wasnik Ms. Richa Shivhare	Training on Environment Management of Renewable Energy Projects	Centre for Science and Environment (CSE)	Bhopal
3.	Mr. Yogendra Trivedi	Labour Laws	Ahmedabad Management Association (AMA)	Ahmedabad

4.	Ms. Sangeeta Basa	Sustainable Development: From Principles to Implementation	IIT Kharagpur	Kharagpur
5.	Ms. Nidhi Sandilya	National Workshop on Impact of Climate Change on Coastal Eco-system	CSIR-CSMCRI (Central Salt & Marine Chemicals Research Institute), Bhavnagar	Bhavnagar
6.	Ms. Manjusha Mukherjee Ms. Himani Sharma	Gujarat CSR Meet	AMA	Ahmedabad
7.	Ms. Meghna Ajit Mr. Ramesh Savaliya	Design Shop	Value Web	Gandhinagar
8.	Ms. Sivakumar S	Capacity Building for Conservation in Asia	The Ecological Research and Training for Conservation	Pune

19.2.1 Staff Recruitment

During the year, 35 staff members have joined CEE under Fixed Term Appointment for three years through a due process of National Recruitment. Subsequent to signing the Memorandum of Agreement on November 14, 2016, no recruitment to the positions that fell vacant within the 152 positions sanctioned by the MoEFCC has been made.

The following is the break-up of the core staff positions as approved by the MoEFCC\

Sr. No.	Category	Sanctioned	Filled
1	Scientist Category	64	62
2	Technical Staff Category	31	30
3	Administrative Category	57	53
	Total	152	145

The total strength including the project and contract appointments as on March 31, 2017, stood at 504. Out of this, 187 staff members were part of the Marishala - Reach to Teach project in Gujarat.

19.2.1.1 Staff Recruitment in CEE Urban

The following staff were recruited for CEE Urban during 2016-2017.

Name of Project/ Programme	No of Staff Recruited
CEE Urban	2
WASH Programme supported by LBCT	3
Information Education and Communication for Maharashtra Gene Bank	3
Participatory Urban Governance	1

Two volunteers were also involved in the Maharashtra Gene Bank Project.

19.3 Corporate Communications

Corporate Communications was integrated as a functional responsibility at CEE in September 2014. The Corporate Communications team has, during the year 2016-17, executed the following activities.

19.3.1 CEE India Website

During the year, the team ensured regular updates of the Centre's activities on the website. This included development of the website; updates and coverage of the International Conference on ESD for Transforming Education for Children and Youth held during September 16-18, 2016; Pan India UNDP-GEF-SGP Meet on the theme of Mainstreaming Grassroots Innovations; World Environment Day 2017 celebration; Ganga Swachhata Pakhwada held from March 16-31, 2017; the National Workshop on Waste Management Rules and Innovations in Waste Management 2017; CEE hosting the twelfth edition of Conference of Youth (COY 12), India; Launch of 'Swachhagraha' - Towards Creating a Culture of Cleanliness project with Adani; Sustainability Exchange Programme 2017 with Central Queensland University, Australia; Digital Payments Awareness Campaign on National Youth Day; and a two month Earth Day Campaign launched in Guwahati. The website also featured activities organised by various offices, such as CEE Himalaya's presence at the First Asian Regional Planning and Training Meeting at Kuala Lumpur, Malaysia; launch event of School Eco Club Action (SECA) Project; Stakeholder Consultation on Indo-German Solar Partnership; launch of the Certificate Course on Climate Change; Teachers' Exchange Programme with Japan, and more.

During this year, CEE received many awards for its work in environmental awareness in various fields, which were also featured on the website: UNU-IAS's 2016 RCE Award for RCE Srinagar along with SWACHA Shale project under the project category; recognition of CEE Himalaya's efforts at the 2nd India International Science Festival (IIFS-2016); and the Global CSR Excellence and Leadership Awards 2016 for CEE Kolkata's Urja Chetana project.

Work on revamping the website continued, and the structure for a dynamic website is being prepared. As opposed to CEE's current website, which is static, the new website will be dynamic {Drupal content management system (cms)}, and will enhance the visitors' experience, both functionally and aesthetically. The process of feeding the existing information into the new structure is ongoing. Documentation for the section on the Centre's Programmes and Projects continues. This page will act as a ready reckoner to CEE's programmes, featuring details about their initiation, partners, impact and beneficiaries.

19.3.2 Ceenario

Twelve issues of the monthly newsletter Ceenario were published and circulated. These featured the programmes and initiatives undertaken by various CEE offices across the country.

19.3.3 Booklet, Brochures & Other Promotional Material

The following promotional material featuring the Centre's initiatives and programmes were designed and developed by the Corporate Communications team.

A booklet on CEE's activities across all offices during the year 2016-17, was prepared which

showcased the impact of the various awareness activities.

Involved with the content editing and designing of a booklet of 20 case studies for the Small Grants Programme (under UNDP-GEF) which was released at the Pan India SGP Meet, themed: Mainstreaming Grassroot Innovations, at CEE Ahmedabad campus in March 2017. This booklet is available for download on CEE website.

A film on CEE covering the Centre's journey over 30 years was made and showcased at the International Union for Conservation of Nature (IUCN) World Conservation Congress 2016 in Honolulu, Hawaii. During the event, the Director of CEE received the 2016 International Brandwein Medal for services rendered for conservation.

Involved in the design of the Guidebook on Nature Camping, prepared for the MoEF&CC. The booklet was refurbished with new information during this year.

Involved as the media unit for various projects under CEE such as GEM Report Launch event in Delhi, FEE Annual Meet and the International Conference on ESD for transforming Education for Children and Youth, and the Sustainability Exchange Programme for Central Queensland University 2017.

Contributed to quarterly reports and other information as and when required by MoEF&CC, with respect to its mandate under the Centre of Excellence scheme.

19.3.4 Social Media

The team has been handling the social media accounts of the CEE. Updates of various programmes and initiatives are shared

regularly on the Centre's Facebook page and Twitter handle. Members of the Ceenario Whatsapp group also share updates on their programmes and projects regularly.

19.4 CEE - South Campus Inauguration

The newly developed CEE-South campus located in Yalahanka was inaugurated in November 2016.

19.5 Compliance under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013

CEE orients all new recruits at the Centre on the provisions of the Act as part of the orientation programme.

During the reporting year, no complaints of sexual harassment were received at the Centre.

Events

20.1 World Wetlands Day – February 2

CEE Himalaya: CEE Himalaya, with support from Give2Asia and JSW Foundation, RCE Srinagar, Mountain Partnership, and Indian Himalaya Climate Adaptation Programme, conducted various events across the Indian Himalayan Region February 2, 2017 to celebrate World Wetlands Day.

Western Himalaya: Jammu and Kashmir: CEE observed World Wetlands Day in Hayatpora village, in Manjakote Block, Rajouri District, Jammu & Kashmir. CEE Himalaya was the first organisation to conduct any event on environment, climate change and sustainable mountain development in this village situated 35 km away from Rajouri city and blessed with dense forests and profound natural resources.

The event, in which 60 students and 10 teachers participated, was graced by Mr. Rashid Khan, Block Development Officer (BDO), Manjakote. After an introduction to the significance of the day, Mr. Riyaz Mir from CEE Himalaya team made a presentation on the role of wetlands in mitigating the impacts of disasters, to align with this year's theme: Wetlands for Disaster Risk Reduction. Quoting the examples of Dal and Wular Lakes of J&K, he highlighted the importance of wetlands in sustaining lives and livelihoods of the people.

Painting and speech competitions were conducted for students on various thematic areas associated with wetlands such as conservation, livelihood, disasters and recreation. The Chief Guest, Mr. Rashid Khan, appreciated the efforts of CEE Himalaya in organising such an event in one of the remotest villages of the state where people's awareness

about wetlands and their conservation was low. He extended his thanks to community members, teachers and students for their participation and concluded the event by distributing prizes to the winners.

Northern Region: Uttar Pradesh: CEE Himalaya, in association with Divya Memorial Trust, conducted an educational programme on wetlands at Divyashiksha Balika Gyanpeeth, Khargapur Village, Gomti Nagar Extension, Lucknow. More than 100 students and 20 teachers from Divyashiksha Balika Gyanpeeth; Government Primary School, Government Upper Primary School, and K D S High School, Khargapur, participated in the programme. CEE Himalaya team members Himani and Sumit Verma introduced the programme. Drawing and painting competitions and quiz were conducted for junior students (class 1-5), while a short lecture on wetlands for disaster risk reduction by Dr. Abdhesh Gangwar, Programme Director, CEE, and an open quiz competition were conducted for senior students (class 6-9).

Senior students also participated in an educational game on: developing an inventory of wetlands; goods and services provided by wetlands; problems associated with wetlands; wetlands present in nearby areas; birds and animals - terrestrial/aquatic/amphibian - found in wetlands; conservation of wetlands and their sustainable use. Students, in groups led by a teacher and CEE facilitator, listed more than 12 wetlands in nearby areas, documented the rich variety of birds and animals (over 35 species) found in and around the wetlands, and identified food items and other useful products obtained from wetlands. Through discussions and brainstorming sessions, students summarised that the main problem associated with the depletion of

wetlands is their encroachment for construction and agriculture. Pollution, caused by contamination through sewage and garbage dumped on wetlands, is another major factor, leading to dead fishes, crabs and birds observed by the students. Polluted water has also led to health problems, especially spread of water borne diseases in their areas. Students identified the inter-relationships between wetlands and their day-to-day requirements of food, clothing, shelter, medicines, fuel wood and recreation. They also came up with suggestions to address this problem at the individual and household level.

An exhibition on Climate Change, Environment and Development was set up at the venue where the students pledged to contribute their efforts to save wetlands. The event inspired the students to appreciate and understand the need to nurture and care for the wetlands and the environment around them.

Central Himalaya: Uttarakhand: CEE Himalaya celebrated World Wetlands Day in Kuroli village, Bhatwari Block, Uttarkashi District in Uttarakhand. CEE Himalaya has been working in Kuroli four other villages in the area since 2013 and has been actively engaged in promoting community based disaster risk reduction in the region.

Around 60 people comprising of men, women, school children and youth from Kuroli and its nearby villages participated in the programme where the usefulness of wetlands for environmental protection and income generation, and locally adopted measures to conserve them, were presented. In line with the theme of 2017, Mr. Kushpal from CEE Himalaya team highlighted the efforts of the village residents in lowering the risks of small

and medium disasters in the region by adopting local actions like planting traditional trees, cleaning the local water bodies and preventing littering.

20.2 National Science Day – February 28

With the support of Give2Asia and JSW Foundation, RCE Srinagar, Mountain Partnership, and Indian Himalaya Climate Adaptation Programme, CEE Himalaya conducted various events across the Indian Himalayan Region on the occasion of National Science Day on February 28, 2017. The focus of the programmes was ‘Science for Climate Change, Disaster Risk Reduction and Educating the Nomads’. CEE Himalaya has been implementing projects and programmes towards achieving ‘Climate Smart, Disaster Resilient and Sustainable Communities’ in the Indian Himalayan Region with several partners including the current ones and MoEF&CC.

Uttarakhand: CEE Himalaya celebrated National Science Day at the Government Inter College (GIC) Bhankholi in Uttarkashi District, Uttarakhand. More than 150 students and 15 teachers participated in the event, in which the chief guest was Mr. C. M. Prajapati, Professor of Science, P. G. College, Uttarkashi. Uttarkashi being a disaster prone district, CEE Himalaya team focused the programme on the role of science and technology in disaster risk reduction and climate change mitigation, and creating awareness in students, youth and teachers on minimizing the impact of likely disasters by developing suitable early warning systems, disaster preparedness and management of disasters through application of information technology tools. Some of the issues discussed were: relevant and timely

disaster mitigation communication through the judicious use of internet and mobile phones; obtain information related to various hazards from different websites; accessing and disseminating to families and communities weather observations and forecasts which international and national organisations and agencies are publishing on the internet; and how mobile phones can be a lifeline before, during, and after an emergency by creating contact groups to send warning messages, weather forecast and update status after an emergency. For this, all emergency contacts should be stored in mobile phones to aid quick reporting to agencies, local administration and service providers. Representatives from various NGOs working in Uttarkashi District - Goonj, Azim Premji Foundation, Reliance Foundation, Shri Bhuvaneshwari Mahila Ashram - also attended the event.

Baramulla, Jammu & Kashmir: The day was celebrated with the Winter Super Coaching Classes at Government High School, Sheeri Bala, Baramulla, with around 45 students and 11 teachers participating. The school is located in a remote area which is vulnerable to earthquakes, falling in seismic zone 4 and 5. Being the first organisation to conduct educational and awareness activities with the school's students and teachers, CEE Himalaya focused on creating awareness on 'Science for Climate Change, Disaster Risk Reduction and Educating Nomads' at the event.

Mr. Mubashir Zargar of CEE Himalaya introduced the programme and dwelt on the basic terminologies related to disaster management - disasters, hazards, vulnerabilities and risk - citing examples from the Kashmir Earthquake of 2005 and J&K deluge of 2014. Actions to be taken before,

during and after disasters like earthquake, fire, landslide and flood were discussed. The students later participated in a drawing competition their experiences of the earthquake of 2005. The event concluded with prize distribution.

Rajouri, Jammu & Kashmir: Another event marking the National Science Day was organised at the Government Middle School, Simbli Darhal, Rajouri District, with 35 students participating. Since Rajouri falls in seismic zone 4, CEE Himalaya organised various activities - lectures, debates, games - to make students and teachers aware of disasters, dos and don'ts during disasters, school safety and emergency services. Students were also involved in mini science experiments to learn more about basic concepts of science to understand climate change, environment and disasters more closely. The principal of the school, who appreciated the organisation for conducting such joyful learning activities for the students, invited CEE Himalaya to conduct more such programmes in the entire area.

The areas of Baramulla, Rajouri, Poonch, Kupwara and Reasi districts of J&K have high concentration of scheduled tribes, largely Gujjars and Bakarwals, practising transhumance - they seasonally migrate to different altitudes of the mountain with their herds of animals. They move to the lower and middle mountain areas and Pir Panjal Himalayan range pastures in the summer (May-September) with their flock of animals where they engage in cultivation and return to the plains in the winter (October-April). Since the education of the children suffers due to this migration, the government started mobile (seasonal) schools for them. But the kind of education that is provided to the nomadic children - the syllabus and curriculum - is

completely irrelevant to their context and does not help in improving their skills, quality of environment and quality of life. Imparting relevant education is a major challenge and the use of community science can play a vital role in achieving this.

CEE Himalaya, in partnership with the UNESCO Chair in Reorienting Teacher Education to Address Sustainability, York University, Toronto, Canada, under an International project 'Reorienting Education and Training Systems to Improve the Lives of Indigenous and Marginalised Youth', is implementing a project named 'Khanabadosh' - Educating Transhumants, Gujjars and Bakarwals of Jammu and Kashmir - Making Education Relevant for the Tribal Children Living in Transhumance. The project aims to make education relevant and appropriate, inclusive of context specific traditional and innovative interventions; to widen the concept of 'education' as envisaged by the administration; and to bring in the essential aspects of Gujjar and Bakarwal practices that lend them uniqueness.

20.3 International Women's Day – March 8

In partnership with Give2Asia and JSW Foundation, RCE Srinagar, Mountain Partnership, and Indian Himalaya Climate Adaptation Programme, CEE Himalaya and SGP North jointly organised an event at the Primary School in Ganeshpur village, Lucknow District on March 8, 2017 to mark the International Women's Day (IWD).

The resource persons on the occasion were Mr. Ajay Trivedi, BEO, Chinhat Block, Lucknow; Mr. Suresh Jaiswal, Jila Mantri, Junior High School Samiti, Lucknow; Ms. Himani Joshi, Project Officer CEE Himalaya;

and Mr. Sumit Verma, Project Officer, SGP-CEE Northern Region. Mrs. Archana Mishra, Principal of the Primary School delivered a lecture on the importance of the preservation of local culture, heritage and resources, and the importance of IWD in schools. She pointed out that protection of women is now a constitutional provision. Mr. Ajay Trivedi spoke on the need for women's involvement in the local community, in various activities like water conservation, plantation, and preservation of culture and heritage, since the Indian society is very rich in environmental conservation knowledge.

A quiz competition was organised as part of the event. Students also shared their views on women and took part in cultural activities. CEE team distributed IEC material to the students and teachers. The programme concluded with students and teachers writing pledges on women empowerment.

20.4 International Day of Forests – March 21

CEE Himalaya: CEE Himalaya used the opportunity of the International Day of Forests on March 21, 2017, to raise awareness among the people of Kuroli village, Uttarkashi District, about the services provided by forests and the urgency of increasing the green cover. The event, hosted in partnership with JSW Foundation, had a participation of 60 community members.

A range of activities like discussions, open dialogues, plantation and games were conducted. Discussions and open dialogues with the communities helped in understanding the changes in their traditional lifestyle due to the aggravating impacts of climate change on land, water and forests. They highlighted the

depletion of forests in their regions due to excessive deforestation for fuel and fodder, and the increase in forest fires during summers. The villagers have also taken action to curb this problem – each family in Kuroli community has adopted a patch of traditional forest and ensure not even a single branch from any tree is cut. Women pointed out that they are the ones who bear the brunt of climate change and depleting natural resources, as they have climb uphill for water, fuel and fodder collection, which consumes a large part of their day time. This has also led to back and spinal problems in women and even death during the arduous climb is not unheard of.

CEE team promoted the plantation of traditional species to meet the increasing demand for wood and the women of the community planted saplings of native species like Baans (bamboo), Deodar (*Cedrusdeodara*) and Oak during the event. The community also pledged to put in dedicated and sincere efforts for the preservation of forests and trees.

20.5 World Water Day – March 22

CEE Himalaya: To draw the attention of the community to issues related to the availability and judicious use of water, and actions required to address the issues and conserve water, CEE Himalaya with support from JSW Foundation, organised an event on March 22, 2017, on the occasion of World Water Day, at Kuroli village in Uttarkashi District. The event was attended by 83 people, largely women, adolescent girls, youth and school children.

Activities like discussions, debates, sanitation campaign and pledge writing were conducted to help villagers gain a better perspective on the issue and encourage them to express their ideas freely. CEE team and community members discussed the impact of climate

change on water bodies, the increasing incidences of water borne diseases due to pollution, the poor maintenance of water collection points, and water conservation and management. Women and adolescent girls voiced their concerns about the major part of their day being spent in carrying heavy vessels of water from a natural spring that is situated 2 km away from their houses.

CEE team tested the water quality of the traditional water collection point and demonstrated simple techniques to the community to monitor the quality of water at home. The village Panchayat was also provided with a Water Quality Testing kit by the CEE team to enable them to continue testing and monitoring the water quality at source.

Yuva Mangal Dal, along with CEE team, initiated a 'Clean Drive' in the village wherein the entire youth of the village joined to clean the major collection point, small streams and the drainage. The event concluded with pledges being written for the conservation and maintenance of the fast depleting water sources.

20.6 World Heritage Day – April 18

CEE North: CEE North observed World Heritage Day on April 18, 2016 as an opportunity to relate this to the environmental issues that plague us. The theme for the event was 'Environment as Legacy: Protecting our Green Heritage'. As part of the school programmes, CEE North organised a state level 'Paryavaran Mitra Schools Event and Meet' at the Regional Science City (RSC), Lucknow. Over 200 students and teachers from 28 schools participated in the event. Inter-school competitions like Paryavaran Mitra Reporter (Feel it, Click it, Report it), a teachers' workshop, and an interactive theatre

workshop for both, were facilitated by the CEE team on the theme mentioned.

The Secretary, UP State Biodiversity Board, Government of UP, who was the chief guest, shared that there are 32 heritage sites in India which include both cultural and natural sites. The global theme for the year: 'Sports as a Heritage' – was also emphasised. A speaker from the University of Lucknow encouraged the children to take up environment-friendly work in their schools. The event concluded with the felicitation of the 17 shortlisted Paryavaran Mitra- Earthian schools at the state level by the chief guest. The focus of the event was to encourage schools to become a Paryavaran Mitra citizen.

20.7 Earth Day – April 22

CEE Himalaya: On the occasion of Earth Day on April 22, 2016, CEE Himalaya conducted an awareness programme on "Trees for the Earth" at the Junior high School, Barsu, in Uttarkashi District, Uttarkhand, with the support of JSW Foundation.

With about 25 participants, the programme sought to create awareness on the impacts of consistent deforestation in Uttarkashi, citing the examples of the melting of Gomukh glacier, frequent floods and landslides being experienced in the past few years causing much destruction, and increased number of casualties in the district. The example of the beautiful high altitude meadow Dayara Bugyal, 6 km from the school, was also discussed, where deforestation and increased tourism has resulted in waste accumulation causing degradation and loss of its serene beauty.

The CEE team also spoke to the participants about the key role of individuals and

community in lessening the devastation, encouraged them to do their bit to save the earth by planting more trees in the mountainous regions as high altitude trees have a greater capacity to remove carbon dioxide from the atmosphere, and persuaded them to do plant tall trees like Oak (*Quercus*) and Devdar (*Cedrus deaodara*) in disaster prone areas as they prevent landslides and floods. Subsequently, the students and teachers present planted five local trees - with the help of CEE team did plantation of 5 local trees: one each of Buransh (*Rhododendron arboretum*), Oak (*Quercus*), Walnut (*Juglans*), Devdar (*Cedrus deaodara*) and Chullu.

CEE North: CEE North organised events in Lucknow and Bareilly District on the occasion of Earth Day. In Lucknow, 80 students and 20 teachers from nine schools participated in the event. More than 230 students and teachers from 25 schools of district participated in the event held in Bareilly District. The aim of the programme was to sensitise the students and teachers about the reasons for and the negative impacts of climate change. After a brief orientation to the day and the theme, a film on environment action success stories was screened to inspire students to understand environmental issues and take up actions to protect their environment. This was followed by a quiz. Students also participated in an exhibition on the theme of 'We can save the environment' and took a keen interest in expressing their thoughts/ideas for green cities in their paintings. Following the competitions, they attended a lecture on Earth Day. The Forest Department officials interacted with the students and shared with them ideas on the importance of greening mother earth. The programme concluded with prize distribution to the winning schools and students.

20.8 International Day for Biological Diversity – May 22

CEE Himalaya: CEE Himalaya team organised and conducted indoor activities with residents of Kuroli village, Mustiksaur cluster (of five villages) in Uttarkashi, Uttarakhand. The focus was on the theme of the year - 'Mainstreaming Biodiversity: Sustaining People and their Livelihoods'.

Mr. Ravindra Panwar, Master Trainer, Herbal Research and Development Institute (HRDI), spoke about the various livelihood opportunities through the cultivation and preservation of medicinal plants. Other resource persons, drawn from different sectors like horticulture, health, DRR, environment and ecology, and social sciences, spoke on the occasion along with Dr. Chandan Kumar, Mr. Jagroshan Singh and Mr. Kushpal from the CEE Uttarkashi team, and local vaidhyas (traditional herbal healers) - Atra Devi and Kamleshawari Devi - who exhibited some regularly used medicinal plants. Four interns from the Tata Institute of Social Sciences (TISS), Guwahati, were also present.

The event had an interactive session focused on identifying the unique biodiversity in the region, followed by an educational programme on the role of biodiversity in mitigating the risks of disasters and climate change in the region. Youth and adolescents prepared 'rangoli' using local material, while the local people planted saplings of traditional species as part of the plantation activity. The event concluded with felicitating Kamleshawari Devi and Atra Devi for their contribution to safeguarding the traditional healthcare system of the region.

20.9 World Environment Day – June 5

CEE Himalaya: The Indian Himalayan Region extends over 12 states, namely, Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and the hilly districts of Assam and West Bengal. The Himalayan ecosystem is very fragile and pristine, supporting a huge diversity in flora and fauna.

But today, the region is under tremendous stress due to unsustainable practices and neglect of the fragile mountain areas. Indiscriminate infrastructure development, unsustainable agriculture practices, over-grazing and over-exploitation of natural resources have degraded the well balanced Himalayan ecosystem. Global climate change is further stressing the ecosystem and biodiversity far beyond their ability to adapt. Climate change is becoming the most significant driver of biodiversity loss, threatening the habitats of wild animals.

However, illegal wildlife trade poses the greatest threat, causing already declining species populations to decline even more rapidly. The vast demand for a variety of products like wool, food and fur, leather goods, and medicines is driving illegal wildlife trade of the already threatened species - Tiger (*Panthera tigris tigris*), Red Panda (*Ailurus fulgens*), Asian elephant (*Elephas maximus*), Greater one-horned rhino (*Rhinoceros unicornis*), Snow leopard (*Panthera uncial*) and others.

On the occasion of the World Environment Day (WED), the Himalaya Initiative of CEE (CEE Himalaya) conducted as well as sponsored local NGOs to organise events across the Indian Himalayan Region, aligning

with the theme for 2016, “Go Wild for Life - Zero Tolerance for Illegal Wildlife Trade”.

Western Himalaya - Jammu and Kashmir: CEE Himalaya organised an event in the village of Kulhama, Bandipore District. Kulhama is situated on the bank of the Wular Lake (one of the largest freshwater lakes in Asia), a Ramsar site with about 500 households. The 3000 strong population is completely dependent on the Wular Lake for their livelihood - fishing and harvesting plants such as the Phragmites grass, the water lily-like Nymphides, water chestnut (*Trapa sp.*) (locally called Singhara) and lotus stems (locally called Nadru) from the lake. Increased incidences of hunting of local and migratory birds for trade have been observed in recent times.

Members of the CEE Himalaya team presented essential facts about the Wular lake: it is both Asia's and India's largest fresh water lake; the lake basin was formed as a result of tectonic activity and is fed by the Jhelum River. The lake's size varies from 30 to 260 sq. km depending on the season; more than eight thousand fishermen earn their livelihood from the lake. The lake also sustains a rich population of birds.

Central Himalaya - Uttarakhand: In collaboration with JSW Foundation and Regional Centre for Expertise, Srinagar (RCE Srinagar), CEE Himalaya organised World Environment Day celebrations at Mustiksaur, Uttarkashi District, Uttarakhand. The eminent guests at the event included Gram Pradhans from five villages - Kuroli, Sada, Bongari, Kankrari and Mastari, along with other members from the local government bodies like Mahila Mangal Dal, Yuva Mangal Dal and Chetrapanchayat. The event was attended by around 135 people from the five villages.

The event featured a song, 'Paryavaran ki thani' (commitment towards environment protection), by the interns from TISS, followed by speeches from the invited guests and plantation by villagers and guests. After the conclusion of the event, all the participants, guests, CEE Uttarkashi team and TISS interns enthusiastically conducted a rally from the college premises to nearby areas, singing slogans like: 'band karein paryavaran ka charan, aao le ye ek pran', 'sabko hame sikhana hai, pedo ko bachana hai'. The participants also undertook the cleaning of areas around Mautiksaur taxi stand, fields and the main roads.

While addressing the participants, the Gram Pradhans raised various issues essential from perspective of environmental conservation. Shri Amar Singh, Gram Pradhan of Kuroli village expressed concerns about the disposal of waste in and around the villages; the need for improvement in waste management at individual, household and village levels; and the benefits of self-employment by utilising environmental resources and regulating them, which would lead to self dependence of the community and village.

Shri Dalvir Singh, Chetrapanchayat, Kankrari, spoke on income generation and livelihood options through utilization of the biodiversity of the region (eg. peach fruit, locally known as *aadoo*) which can contribute to the livelihoods of the people as well as provide environmental benefits. He also touched upon human animal conflict, in the context of encroachment upon forest areas by villagers for fuel and fodder. Kavita Gusain, Gram Pradhan, Bongari village, highlighted the increasing pollution in the district.

Chandan Singh Rana, BJP Representative, Mastari village, spoke about the responsibility of each villager in conserving natural resources. The environment should be taken care of by the villagers just they take care of their household and the local anganwadi. He pointed out the ways in which the local environment is changing, with reference to untimely rains and cloudbursts (Chamoli and Rudraprayag). The importance of 'I' more than 'we' in contributing to environmental conservation was discussed along with the need for the villagers' realisation of their individual and collective responsibility to their immediate environment so as to ensure the success of any organisational effort.

Saplings of traditional trees were planted in the Inter college premises by the villagers, the invited guests and the CEE team.

Eastern Himalaya - Sikkim: CEE Himalaya held a two day WED celebration with the students and teachers of Deorali Senior Secondary School, Gangtok, Sikkim, with plantation on the first day and various programmes and activities for students on the second day.

After an awareness session by senior students on each living being as a vital component of the environment and the significance of the WED theme, the students performed an action song on showcasing the wildlife of Sikkim, namely, Himalayan Black Bear, Red Panda and Himalayan Thar, as well as some which have become extinct due to ill legal trafficking. The Environmental Club of the school was presented a token of appreciation for their work in promoting environmental awareness and conservation.

Subsequently, various activities were organised for students – painting, mask

masking, exhibition and plantation. About 35 students of middle school participated in the painting competition based on the WED theme. Junior students were facilitated to prepare masks of different wildlife of Sikkim, which they took home with a promise to protect their favourite wild animal. An exhibition of craft work prepared by students from waste material through the Environmental Club was held to encourage others to take up such initiatives. The Environment Club also engages students in making compost from kitchen and canteen waste of the school. Members of the Environmental Club, students and teachers planted saplings of flowering plants in the school premises to increase the green cover and beautify their school. The event concluded with prize distribution for the winners of the mask making and painting competitions.

Manipur: CEE Guwahati celebrated WED 2016 with Naga Hindi Vidyapeeth Minuthong (NHV), Imphal; Evangelical Free Church of India (EFCI), Rengkai; and Leimatak Employee Church (LEC), Churachandpur. The event was conducted at LEC Leimatak and the Sunday School Hall of EFCI, Rengkai with around 100 children, and was graced by the Sunday School Superintendent Mr. Vanlalhmuk. Sunday school conductor Miss P. C. Elizabeth, Sarva Shiksha Abhiyan School teacher Secretary in charge of NHV Miss. Roslyn Lalneihlu and village elders were also present along with Miss Arlin Lalnunmawi, proprietor of Arlin Decors who also undertook decoration and photography for the event.

Miss P. C Elizabeth raised serious concerns on the decreasing natural forests and wildlife in their villages once famous for their flora and fauna, due to deforestation, destruction of habitats and hunting. She emphasised that today's heroes are the saviours of the forest

and fauna, not the hunters and shooters of earlier times. She also warned that we should focus on saving the environment if we want to save human race. Miss Roslyn Lalneihlu spoke of the negligent attitude of human beings towards environmental awareness and conservation that has resulted in irreversible changes in the ecosystem. Mr. Vanlalhmuk presented interesting facts about the environment and its importance leaving children astonished and curious.

Participants later planted saplings in the locality.

Mizoram: CEE North East, in association with Bru Cultural Organisation, celebrated World Environment Day on June 5, 2016, at Bru Christian Fellowship (BCF) Hall, Mission Veng, Aizawl, Mizoram, with around 132 participants. The resource persons, Mr. G. Zonunkima and Mr. Lalremruata, deliberated on the subject of 'Wildlife Illegal trade in Mizoram & Wildlife Conservation Act, 1972'. The group discussion which followed invited the participants to provide their views on and suggestions for curbing illegal wildlife trade.

Assam: An outreach programme involving 57 eco-club students from standards 8-10, three teachers and the Principal of Lakhpathar High School, Tinsukia, Assam, was held on the June 5, 2016. The programme was jointly organised by CEE Himalaya and EdEn, an organisation working for Environmental Education in Tinsukia and Dibrugarh districts of Assam.

Lakhpathar lies along the Eastern South Bank Landscape which connects the Dihing Patkai Elephant Reserve with corridors ranging from India to Myanmar. Lakhpathar High School is also one of the schools implementing the

North East India Asian Elephant Conservation Education Programme of CEE.

After an orientation on the theme for WED 2016, 'Go Wild for Life - Zero Tolerance for Illegal Wildlife Trade', a seminar highlighting the 'Endangered', 'Threatened' and 'Vulnerable' species found in Assam, as listed in IUCN version 3.1, and poached for illegal wildlife trade, was conducted, followed by an open discussion on the role of Eco-Clubs in creating awareness and preventing the practice of wildlife trade. In concluding, the participants pledged to take further action and spread the word among peer groups and the community.

Tripura: CEE Himalaya sponsored an event to mark World Environment Day 2016, which was celebrated in collaboration with Prayas – Teliamura; Forest Department, Khowai District; Tripura State Pollution Control Board; Teliamura Municipal Council; along with CEE Guwahati. A series of events were held on May 29, June 3 and 5, 2016.

About 450 students drawn from nursery to class 12 participated in the drawing competition organised on May 29 at Town Hall, Teliamura, with nearly 1000 people being present. Mrs. Gouri Das, MLA, inaugurated the event by drawing a picture of herself while Mr. Prasad Rao and Mr. A. Chakraborty, District Forest Officers of Khowai and Teliamura respectively graced the event.

On June 3, a cultural programme and plantation was organised at the newly constructed Children's Park, on the premises of Teliamura Rural Development Block office and Teliamura Sub-Divisional Hospital. Dignitaries present at the event included Mrs. Gouri Das, MLA, Tripura LA; Mr. Sajal Dey, Chairman, Teliamura Municipal Council; Mr.

Prasad Rao, DFO Khowai; Mr. A. Chakraborty, DFO Teliamura; and Mr. A. Chakraborty BDO Teliamura. The event, which had cultural performances by local artists, was attended by about 2000 people. The dignitaries spoke on the significance of World Environment Day and planted saplings in the premises.

The third event was held on June 5 at Netaji Nagar Community Hall in the presence of 500 people. The event was graced by dignitaries namely, Mrs. Saini Sarkar, Sabhadhipati, Khowai Zilla Parishad; Mr. Sajal Dey, Chairman, Teliamura Municipal Council; Mr. Amaresh Chowdhury, Chairman, Teliamura Panchayat Samiti (TPS); Mr. Prasad Rao, DFO Khowai; and Mr. A. Chakraborty, DFO Teliamura. The activities during the celebration included seminar, cultural events, and distribution of prizes, books and merit scholarships. Fifty students were given certificates and prizes, five meritorious girl students were awarded certificates and cheques, and students from financially poor families were given science book sets.

As in the case of Assam, the programme included an orientation to the WED theme, seminar on illegal wildlife trade, open discussion on the role of Eco-clubs in preventing wildlife trade and pledge for spreading the information among peer groups.

CEE North

CEE North has organised six awareness events on the occasion of World Environment Day at various locations in UP and Bihar.

Uttar Pradesh - Lucknow: Of the two events held in Lucknow, the first was in collaboration with the Regional Science City for children. Various competitions including where rangoli, poster making and quiz were conducted, with

over 300 children and general visitors participating in the event. A series of games and creative activities were also conducted with the focus on key endangered species.

The second event was held at the village level with the help of Prakriti Bus – the mobile exhibition on the biodiversity of Uttar Pradesh. The bus covered the rural community and children in two villages, Poorva and Mojasa in Malihabad Block. This programme was undertaken in association with the UP State Biodiversity Board, University of Lucknow and District Science Club.

Bahraich: In Bahraich District, as part of the Dolphin programme, a rural community event was organised. The event kicked off with an awareness rally by the children of Dolphin project village, which was followed by plantation and community level meeting. The CEE team introduced the theme and discussed with community members ways to conserve the Ganges river dolphin.

Bihar – Vaishali: The WED celebration in Vaishali was held at UMS Andharwara with school students, members of the School Management Committee and teachers. The event included competitions for children, plantation in the school campus, and an address to the community members and Bal Sansad students by a guest from the education department. Winners received prizes from the dignitaries and a pledge was taken for nature conservation.

Bettiah: On WED, a workshop cum training on 'The Role of Agro Forestry in Conservation of Environment, Biodiversity and Habitat of Ganges River Dolphin' was organised at the Forest Resource Centre, Udaipur Wildlife Sanctuary, Bettiah, Bihar. More than 40 farmers and fishermen beneficiaries were trained on

the cultivation techniques of agro forestry in the context of farm land, flood plains and river beds. The workshop was inaugurated by the Divisional Forest Officer, Bettiah Forest Division.

CEE Jaipur: To create awareness about wildlife and our role in its conservation, CEE Jaipur team organised a two day event at Jaipur in collaboration with Rajasthan State Bharat Scouts and Guides, Environment Department of the Government of Rajasthan and Rajasthan Pollution Control Board. A series of thematic competitions for children and youth were conducted on June 4, like origami, mask making, poster making, best out of waste and pot painting, which encouraged them to express their thoughts on wildlife and related issues like the interconnectedness of forest and wildlife and the need for conserving and restoring the world's forests. A demonstration of paper recycling was conducted as an example of an action towards saving forests and wildlife. On June 5, the participants of the competition enthusiastically participated in the 'Run for Environment' programme organised by Rajasthan Pollution Control Board to spread awareness among Jaipurites. The CEE Team carried out face painting for the participants of the Run for Environment which was such a huge hit that even officials of various government department got their faces painted with wildlife pictures. A visit to Nahargarh Biological Park was also organised for the participants with the support of the State Forest Department. The Park was inaugurated by Ms. Vasundhara Raje Scindia, Chief Minister of Rajasthan and Mr. Rajkumar Rinwa, Minister of Environment and Forests. Children enjoyed the visit to the park and were excited to see animals like the Himalayan Bear, Sloth Bear, Wild Boar, Panther, Hyena, Hog Deer, Civet and Porcupine in near-natural

habitats. Around 600 students participated in the two day event.

CEE Karnataka: CEE Karnataka participated in the World Environment Day event organised by Karnataka State Pollution Control Board at Kanteerava Indoor Stadium in Bengaluru during June 5-7, 2016. CEE set up a stall where our publications were displayed and sold. Nature related activities were also conducted for visiting students.

CEE Tamil Nadu: CEE Tamil Nadu organised a live and interactive meeting with all the staff members of Tamil Nadu Empowerment And Poverty Reduction Project (TNEPRP) at their project office in Chennai to celebrate WED. CEE TN served as the State Environment Resource Agency (SERA) for TNEPRP to implement the Environmental Management Framework (EMF).

Ms. S. Rejini, Programme Officer, CEE, made a presentation on this year's theme Go Wild for Life - *Zero Tolerance for the Illegal Wildlife Trade*. She explained to the gathering with facts and figures the enormity of the illegal trade in wildlife, and how compliances (forestry and wildlife) are being implemented in the project through EMF. She also suggested ways for individuals and groups to get involved in wildlife conservation.

Short video documentaries on Save Forest and Wildlife was screened to drive home the point that illegal trade in wildlife needs to be arrested.

20.10 International Youth Day – August 12

CEE Jaipur: Acknowledging the role of youth in the sustainability movement around the world, CEE Jaipur team organised International Youth Day celebration on

21. Facilitation, Networking and Participation

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 and the visitors to CEE and its sister organisations, providing an opportunity to orient them to Environment and Sustainable Development, including information on various schemes and programmes of the Ministry of Environment and Forests, Government of India.

The IFC has a menu of programmes and activities which include orientation and hands-on experiential learning opportunities for various age groups through packages of varied duration from three hours to a week. 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 of various programmes of IFC and visitors to IFC is prepared and updated on a regular basis. It has over 3700 contact addresses listed to whom event information and other updates on special programmes at CEE are sent.

21.1.1.1 Packages for Orientation to Environmental Education

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 participating.

School groups: IFC facilitated visits from many schools of Ahmedabad. The students' groups were varied as they included very young children from pre-primary and those from senior secondary classes. The number of groups who have undergone the orientation programme facilitated by IFC during the reporting period:

Group	Number	No. of participants
Schools	25	2000 plus
University/ Architecture students and trainees	10	500 plus
Groups supported by NGOs	4	plus100
Summer Programme student	1	100
Walk in Visitors		500 Plus

Besides offering the Orientation package, IFC also facilitated field visits to Nature Education sites developed by CEE, namely, the Manekbaug plot and Sundarvan.

21.1.1.2 Birthday Package

IFC organised birthday celebrations for children at CEE's 14 acre green campus. The package includes a nature trail, bird watching, film screening, quiz and games focusing on the environment. The birthday girl or boy

plants a sapling and has her/his name tag on it. Friends are given educational products developed by CEE as return gifts.

21.1.1.3 Safe Festival Campaign

Diwali Safe Festival Campaign: Posters with messages about safe festival celebration were put up at various places in Ahmedabad. Mailers were sent to people making them aware of the health hazards and pollution created due to crackers

Holi: This campaign was conducted to propagate the use of natural colours and create awareness about the harmful impacts of synthetic colours sold in the market. Natural and herbal colours were sold from H.B Kapadia School, (Memnagar Branch), St. Kabir School and the IFC. The colours were procured from AURA Herbal wear - organic products entrepreneurs in Ahmedabad. Posters were put up at different locations to spread the message of safe colours. Pamphlets with tips on making homemade colours were distributed. The making of natural colours at home was also demonstrated at schools and colleges.

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 for people could contact in case they find some injured bird.

Go Green Ganesh Campaign: CEE celebrated an eco-friendly Ganesh Chaturthi with 'Go Green Ganesh' campaign. 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 Ganesh idols. With time however, the festival became a large scale commercial and community-based event involving Ganesh idols which can be as tall as 70 feet and are made of Plaster of Paris. These are later submerged into 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 Ganesh and taught the value of enjoying the festival without harming the environment. They were taught to make small Ganesh idols out of clay.

21.1.1.4 Summer Programme for children

A special vacation programme for children of the age group 5-13 years was conducted by the IFC in May 2016. The month long programme was divided into different themes, each of which was coordinated by a subject specialist from CEE. This was scheduled under the main theme "Fight against Illegal Trade in Wildlife", which was the World Environment Day 2016 theme 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 of the products and materials they developed during the summer programme and conducted puppet shows on the World Environment Day.

World Environment Day: IFC supported the World Environment Day programme at CEE, by sending mailers and invites to the IFC

contact list. An exhibition of the children's work during the summer vacation programme was set up for the public in the campus.

Products like paper bags, candle stands, lampshades and traditional diyas procured from organisations like UTTHAN, SEWA and Blind Peoples Association (BPA), were exhibited and sold at the IFC on the day.

21.1.1.5 Facilitating Linkages and Media interface

The IFC facilitated linkages with other programmes within CEE such as connecting colleges to the SAYEN network in Ahmedabad. IFC also plays a major role in assisting with the media coverage for many of the NFD and CEE programmes.

21.1.2 Facilitation Activities at CEE Delhi

The Delhi office of CEE continues to function as a national coordination office, providing liaison and coordination services to the Headquarters and 40 odd offices of the organisation. The main task of continuous coordination with the Ministry of Environment, Forest & Climate Change (MoEF&C), for the Centres of Excellence scheme as well as various projects, follow up on sanctions and release of grants, submission of reports and UCs, went on through the reporting year. Follow up with other government ministries and departments, foreign missions, national and international funding agencies also continued.

Another continuous service by the Delhi office is to provide all CEE teams with focused and identified information about tenders, bids, RFPs (requests for proposals), calls for proposal, etc. where CEE has the relevant expertise to apply. During 2016-17, a total of 44 such opportunities were identified and details sent to relevant groups/offices of CEE.

21.1.3 Summer Workshop in Jaipur

CEE Jaipur, in collaboration with Joseph Cyril Bamford (JCB), organised a week long summer vacation workshop at the Govt. Senior Secondary School, Bhambhoria, Jaipur. The workshop was designed around the theme of waste management, water and sanitation and learning science with fun. The workshop aimed to expose children to new activities and experiences that they are not familiar with and to provide them an opportunity to explore and try new things along with skill development like sharing, team work and participation. Hands on activities such as making a colour spinning wheel by using primary colours, separating colours by chromatography, preparing natural colors from flowers and leaves, preparing handmade paper by recycling used paper, origami, thread painting and making homemade soap were conducted for the students. The importance of hand washing and personal hygiene was stressed upon throughout. Joy of Science activities like constructing balloon powered car and balancing a pencil on its tip were carried out to develop in the children an understanding of abstract scientific principles. The workshop culminated with an exposure visit to the Regional Science Museum, Jaipur, and Kagzi paper making factory, Sanganer, Jaipur.

21.2 Participation

Conferences / Seminars / Workshops
Attended / Conducted by CEE Members

Ms. Reema Banerjee

- Was nominated by the Department of Disaster Management, Government of West Bengal, as one of the experts for the talk show 'Durjog Mukabola' aired on DD

Kolkata on August 16, 2016. The talk show was on plastic waste management.

- Was invited to attend the 5th meeting of the Regional Waste Management Outlook meeting organised by UNEP-IETC and the Regional Resource Centre for Asia and the Pacific at the Asian Institute of Technology, Bangkok, from April 18-22, 2016. The academic curriculum on holistic waste management for professionals such as policy makers and technicians was also finalised in the meeting with inputs from the participants and experts, and the delivery mechanism of the course was discussed at length. The meeting also deliberated on a Regional Waste Management Outlook document for Asia on similar lines as the Global Waste Management Outlook (GWMO) document.
- The paper authored by Ms. Reema Banerjee and Ms. Madhavi Joshi titled 'CHAMP - A Bio Medical Waste Disposal and Recycling Plant: An innovative PPP model of reverse logistic mechanism to promote green supply chain management in healthcare sector', was accepted and presented at the International Conference on SWM (Solid Waste Management) organised in Jadavpur University Kolkata, in November 2016. The paper has been shortlisted for publication in the book, *Waste Management and Resource Circulation* to be published by Springer (India) Private Limited.
- Participated in stakeholder engagement sessions to discuss ways to improve Kolkata's air quality, organised by the US Consulate General, in collaboration with the Global Change Program of Jadavpur University and the social enterprise *banglanatak.com*, on September 15, 2016, followed by a Round Table on September

24, 2016, to identify solutions and good practices. It was agreed that regular consultations will be organised for planning multi-pronged action.

Ms. Sangeeta Basa

- Attended the workshop: 'Sustainable Development - From Principles to Implementation' at IIT Kharagpur from May 23-28, 2016. The workshop covered (a) the principles of sustainable development, (b) case studies and insights from practitioners on the ground working on sustainable rural development, (c) field visit to a nearby village for collecting primary data for the development of a business plan, and (d) development of a business plan integrating activities.

Ms. Himashree Bhattacharyya

- All India Radio, Guwahati broadcast an interview of Ms. Bhattacharyya on May 21, 2016 on 'Experiences in Science Express' under the 'Yuva Vani' programme. Presented a paper titled 'Creating a Civil Defence for Tiger Conservation through Education: A case study from Assam' at the UGC sponsored seminar at B. N. College, Dhubri on January 27, 2017. The paper was co-authored with Dr. Simanta Kalita and Mr. Inamul Haque Ahmed.
- Was Resource Person for a teachers training session on 'WASH in Schools' organised by UNICEF Assam on July 26, 2016.
- Was Resource Person for a session on 'Walkability Study' at the Centre for Ecology, Environment and Sustainable Development, School of Social Sciences, Tata Institute of Social Sciences (TISS), Guwahati on March 30, 2017.

Ms. Bijayalakshmi Borpujari

- Was the resource person for a session on the occasion of World Tourism Day on September 26, 2016, invited by the NGO Uttaran.
- Was a resource person for Swachh Mela in Golaghat District of Assam April 8, 2017 and led training sessions on Sanitation.

Mr. Mitrajit Deb

- Was the resource person for a 'Digital Payment Awareness' programme held on the National Youth Day 2017 for high school students of the New Guwahati Adarsh High School, Bamunimaidan, Guwahati.
- Was invited as a Resource Person for Swachh Mela in Golaghat and Kokrajhar districts of Assam in April 2017 and led training sessions and advocated the CLTS approach for achieving Open Defecation Free India and waste management, thereby aiding in the promotion of Swachh Bharat Mission.
- Was invited as a Resource Person for Namami Brahmaputra River Festival in Goalpara District of Assam in April 2017 and led training sessions on Sanitation via CLTS approach.
- Presented a paper titled 'Local Extinction of Western Hoolock Gibbon from Cachar District of Assam' at the UGC sponsored seminar at B. N. College, Dhubri, on January 27, 2017.

Mr. Sujeetkumar Dongre

- Facilitated technical sessions on all three days of the Goa Bird Festival organised in Bondla Wildlife Sanctuary during November 11-13, 2016, in which Goa State Office was an organising partner.

- Has been nominated as Member, Wildlife Board, Government of Goa.

Dr. Abdhesh Gangwar

- Participated in the Regional Workshop for the North Eastern Region (NER) of India on 'Climate Adaptation Programme and Sustainable Ecosystem in NER' held during April 25-26, 2016 at Imphal, Manipur, organised by Manipur Directorate of Environment with support from Swiss Development Cooperation and Department of Science & Technology, Government of India.
- Was invited to The Sirindhorn International Environmental Park (SIEP) 1281 Rama VI Camp, Cha-am District, Phetchaburi, 76120, Thailand from during June 25–July 4, 2016, where he participated in (a) the International Conference on 'Climate Change, Biodiversity and Ecosystem Services for the Sustainable Development Goals (SDGs): Policy and Practice', in celebration of HRH Princess Maha Chakri Sirindhorn's 5th Cycle Birthday Anniversary during June 26-29, 2016; (b) the 9th Asia-Pacific RCE Meeting held on June 30, 2016; and (c) the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) Capacity Building Workshop on Policy Support Tools during July 1-2, 2016.
- Attended the International Conference on 'ESD for Transforming Education for Children and Youth', organised by CEE from September 16-18, 2016 at Ahmedabad and coordinated the Sub Thematic Session on 'ESD in Youth and Higher Education'. He also participated in the sessions of the General Assembly meeting of the Foundation for Environmental Education

(FEE) held simultaneously during the ESD Conference.

- Was invited to the Republic of Korea by the 'Sejahtera Forest for All' to attend the 8th Tongyeong ESD International Forum 2016 held on October 21-22, 2016, at Tongyeong city, Republic of Korea.
- Was invited by the United Nations University - Institute of Advanced Studies (UNU-IAS) to attend the 10th Global RCE Conference held at the University of Gaja Madha and RCE Yogyakarta, Indonesia, and the IPBES capacity building workshop organised by IPBES with UNU-IAS, during November 22-25, 2016.
- Visited Nepal from January 1-8, 2017 for conducting needs assessment to develop CEE's 'Rebuilding Nepal' programme post-Nepal earthquake.
- Was invited to attend the 3rd Indian Freshwater Turtle and Tortoise Strategic Conservation Action Planning and Red List Assessment Workshop held during February 16-18, 2017 at New Delhi.
- Attended the 'Mainstreaming Grassroots Innovations: Community Action, Global Impact', the SGP India Meet organised by CEE with UNDP during March 15-17, 2017 at CEE Ahmedabad.
- Was invited and supported by Give2Asia to attend workshops on 'Disaster Preparedness and the Power of Local Leadership', organised by Give2Asia and IIRR, Philippines, during March 6-10, 2017 at IIRR, Cavite, and Asian Institute of Management in Manila, Philippines.
- Was felicitated at 2nd India International Science Festival (IIFS 2016) held on November 11, 2016, at the Council of Scientific & Industrial Research (CSIR) -

National Botanical Research Institute (NBRI), Lucknow, in recognition of the work done by CEE Himalaya, to popularise science and Education for Sustainable Development, and working towards achieving climate smart and disaster resilient communities across the Indian Himalayan Region (IHR). The NBRI felicitates grass root innovators school children who received recognition at state or national level, innovative science teachers, science journalisst, NGOs and Individuals working towards popularising science.

Ms. Rajeswari Gorana

- Attended the annual national 'Agenda Congress' organised by the Federal Ministry of Education and Research, Germany, on July 11-12, 2016, at the Berlin Congress Centre in Berlin. It was a forum where actors and member organisations contributing to the Global Action Plan of UNESCO and SDGs exchanged learnings. She shared the material development initiative in one of the workshops in the Congress.
- Made three presentations at the ESD for Transforming Children & Youth Conference held in September 2016: (a) 'Nature Scope & EE Materials' at the session on the theme of 'School based Projects/Programmes towards Sustainability'; (b) 'NCERT Textbook Review of Sustainable Transportation' at the session on the theme of 'Innovative Learning Approaches in Educational Methods; and (c) Sustainable School/ College Initiative at the session on the theme of 'ESD for Youth'.
- As part of CMU, coordinated the printing and distribution of 'ESD Curriculum

Framework', edited by Jorg-Robert Schreiber and Hannes Siege, KMK (Standing Conference of the Ministers of Education and Cultural Affairs) and BMZ (German Federal Ministry of Economic Cooperation and Development) and executed by Engagement Global, for distribution at the ESD for Children & Youth Conference.

Ms. Himani

- Attended the Regional Consultative Workshop on 'Strengthening Capacity for Disaster Risk Reduction', organised by the UNESCO Offices in New Delhi and Kathmandu and other partners during October 19-21, 2016, in Kathmandu, Nepal, to mark the 'International Day for Disaster Risk Reduction'. Himani presented the rehabilitation work of CEE Himalaya under the projects 'Rebuilding Trust' (post Kashmir 2005 earthquake & J&K floods 2014) and 'Rebuilding Faith' (post Uttarakhand flash floods 2013).

Ms. Madhavi Joshi

- Was invited as Speaker and Chair for a Panel on 'Women and Environment', at the Sophia College Platinum Jubilee Conference on 'College Education for Women in 21st Century – Challenges and Opportunities', on December 1, 2016.

Dr. Simanta Kalita

- Was invited by Assam Autism Society as the Guest of Honour to delivered a lecture on 'Autism and Environment' on April 2, 2016 - World Autism Day 2016, at Vivekananda Kendra Institute of Culture, Guwahati.
- Was invited as the International Resource Person by AKEPT, Kuala Lumpur, Malaysia, to deliver two lectures in the

'Leading Academic Institutions through ESD: Leadership Training programme for University Leaders in Malaysia' programme, during April 26-27, 2016. He spoke on 'Differences between Environmental Education (EE) and Education for Sustainable Development (ESD)' and 'Managing RCEs in India: RCE Guwahati - an example'.

- Was invited as the Guest of Honour for the 'Swachh Vidyalaya Awareness cum Goodwill Meeting' held on August 13, 2016, at Bongora Pachoniapara MV School, Kamrup, Assam. He spoke on 'How to engage community in planning and execution of WASH activities in Schools'.
- Participated in the 'CLTS Training of Trainers' at the State Institute of Rural Development (SIRD), Kahikuchi, Guwahati, during August 22-26, 2016. The training was organised by the Chief Engineer (Sanitation), Public Health Engineering Department, Assam and Water Supply and Sanitation Collaborative Council (WSSCC).
- Was invited as a Panelist for the North East Dialogue of World Sustainable Development Summit 2016, organised at Guwahati by TERI on August 24, 2016. He spoke on 'Water and Sanitation'.
- Was invited as a National Expert in the Teacher Training programme on WASH in Schools organised by UNICEF, SSA Bihar and CEE North. Apart from the training, he also visited schools and helped the project team in planning future activities. The programme was organised on September 7-8, 2016 at Hazipur.
- Was invited as a National Expert at the 'State Level Workshop on Integrating WASH in Adarsh and Utkarsh Vidyalaya

in Rajasthan'. The workshop was organised by UNICEF and Rajasthan Council of Elementary Education (SSA) on September 19, 2016 at Jaipur, Rajasthan.

- Was invited as a Resource Person for the 'National Teacher Training Programme' organised by the Centre for Cultural Resources and Training (CCRT) on September 29, 2016. He spoke on two topics – 'Introduction to Environment, Environment Education and Environmental Studies' and 'Water Resources'.
- Was invited as a Resource Person at the 'Inter State Teacher Training Programme' held for teachers of Assam and Arunachal Pradesh on 'Hoolock Gibbon Conservation Education. The programme was organised on October 4, 2016 by ENVIRON and SSA, Assam at Sadiya, Assam.
- Was invited as a Resource Person in a teacher training programme organised by TERI on October 14, 2016 at Guwahati. He spoke on 'WASH Education in Schools: Realities and Challenges'.
- Was invited as a Resource Person for a 'Children's interaction programme' organised as part of Anwasha Festival of Books at Guwahati on October 15, 2016. His topic of interaction was 'Natural Disaster and Child Rights'.
- Has been appointed as one of the Members of the 'State Level Committee' formed by the Government of Assam for the 'Swachh Vidyalaya Puraskar, Assam'. He attended a meeting of the committee on the December 9, 2016, held at the Assam Secretariat under the chairmanship of the Principal Secretary, Education.
- Participated in the 'National Conference on Social Innovations for Improving Urban Sanitation: Lessons for Scaling up', organised on December 14, 2016, at India Habitat Centre by PRIYA and Centre for Policy Research (CPR).
- Participated, along with Himashree Bhattacharyya, in the Pravasi Bharatiya Divas, held at BIEC (Bengaluru International Exhibition Centre), Bengaluru during January 7-9, 2017. CEE has won the National Social Innovation Contest 2016 of NITI Aayog and Ministry of External Affairs. Dr. Kalita and Ms. Bhattacharyya received the award from the Minister of State for External Affairs, Gen (Retd.) V.K. Singh.
- Delivered the Invited Speech at the inaugural session of the UGC Sponsored 'National Seminar on Environmental Conditions and Biodiversity Status in the New Millennium'. The seminar was organised by B.N. College at Dhubri, Assam on January 28-29, 2017.
- All India Radio, Guwahati broadcast a telephonic interview of Dr. Kalita on January 30, 2017, on 'Cleanliness and Swachh Bharat Mission' under the 'Aajir Puwa' programme.
- Delivered the *Invited Speech* on 'Protecting Natural Environment: Sensitising Student Community & Civil Society' at the 'National Workshop on Protection, Conservation and Management of Natural Environment: Role of Student and Civil Society', organised by the University of Science and Technology, Meghalaya on February 10, 2017, at Baridua, Meghalaya.
- All India Radio, Guwahati, broadcast an interview of Dr. Kalita on March 16, 2017 on 'Environmental Studies and Employment Opportunities' under the 'Yuva Vani' programme.

-
- Published a paper titled 'Role of Teachers in Promoting WASH in Schools: A case study from Kamrup District in Assam' in a journal.

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 member, she provided inputs on forestry management, environment awareness and other activities of the project.
- Has been nominated as a member of the executive and steering committee under the State Compensatory Afforestation Fund Management and Planning Authority (CAMPA), Uttar Pradesh.

Mr. Deep Shah

- Organised an interaction for the staff of SEWA Gram Mahila Haat, along with Ms. Rajeswari Gorana, and oriented them to digital payment and BHIM app. This was as part of the campaign called for by the Hon'ble Prime Minister of India to mobilise youth on the theme of Digital Payments.
- Facilitated teacher training for a batch of teachers held at Bakore during October 17-19, 2016. This was as part of the Gujarat Council for Education, Research and Training (GCERT), Government of Gujarat, project awarded to CEE to train 2000 teachers on Social Science.
- Facilitated a nature walk session in Indroda Park, Gandhinagar, for the participants of the Sustainability Exchange Programme organised by CEE's CSD (Communication for Sustainable Development) Group on January 18, 2016. He conducted a bird watching session as

well as gave a brief overview of the wildlife found in Gujarat and at Indroda Park.

- Was involved in the preparation of the Swachhta Pakhwada report of August 1-15, for MoEF& CC. It is a compiled analytical report of activities undertaken by various states as part of the Swachh Bharat Mission.

Mr. Jaison Verghese

- Facilitated a two-day workshop on Resource Mobilisation and Grant Making, organised by Caritas, Denmark and North East Diocesan Social Service Society, Guwahati, on January 19-20, 2017.
- Attended and facilitated the handholding and networking sessions during the Millennium Alliance (MA) Consultation Workshop held at Imphal on February 8, 2017.
- Represented CEE North East, along with Ms. Himashree Bhattacharyya, as a finalist for the MANTHAN Awards held at Surajkund Ground, Faridabad, Haryana on February 25, 2017.
- Coordinated pre-Earth Day campaign in association with the North East Diocesan Social Service Society (NEDSSS). He also coordinated the 'Round Table Conference on Environment Education in India' in Guwahati and Imphal along with NEDSSS.

Mubashir Sultan Zargar

- Participated in the First Asian Region planning meeting on January 18-21, 2017 at Kuala Lumpur, Republic of Malaysia, held under the project 'Reorienting Education and Training Systems to Improve the Lives of Indigenous and Marginalised Youth' of the UNESCO Chair in ESD at York University, Toronto, Canada.

CEE Governing Council

***Centre for Environment Education
Ahmedabad***

***LIST OF MEMBERS OF GOVERNING
COUNCIL:***

Shri Ashok Khosla

Chairman

Development Alternatives

B-32, TARA Crescent,

Qutub Institutional Area

New Delhi 110 016

Members

***Nominees of the Ministry of
Environment, Forest & Climate
Change, Govt. of India***

Shri Ajay Narayan Jha, IAS

Secretary

Government of India

Ministry of Environment, Forest & Climate
Change

“Indira Paryavaran Bhawan”

Jor Bagh Road

New Delhi 110 003

Shri P.K. Dash, IRS

Additional Secretary & Financial Advisor

Government of India

Ministry of Environment, Forest & Climate
Change

“Indira Paryavaran Bhawan”

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New Delhi 110 003

***Representatives of the Nehru
Foundation for Development,
Ahmedabad 380 054***

Ms. Indu Capoor

Director,

Centre for Health Education, Training and
Nutrition Awareness, Outreach (CHETNA -
O)

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Ashram Road, Vadaj,

Ahmedabad 380 013

***Representative of the Karmakshetra
Educational Foundation,
Ahmedabad 380 014***

Dr. (Ms.) Mallika V. Sarabhai

Trustee, Karmakshetra Education
Foundation (KEF) and

Hon. Director

Darpana Academy of Performing Arts

Usmanpura

Ahmedabad 380 014

***Nominee of the Department of Forest and
Environment, Govt. of Gujarat***

Shri Arvind Agarwal, IAS

Additional Chief Secretary

Govt. of Gujarat

Forest & Environment Dept.

Sardar Patel Bhawan

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Gandhinagar 382 010

***Eminent persons in the fields of
Environment, Education,
Communication and Management***

Shri Ashoke Chatterjee

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Shri Prasad R. Menon

Independent Director-Axis Bank Ltd.

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Shri S.K. Mukherjee

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47, Lane 5

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Dehradun

Uttarakhand 248171

Prof. M.K. Prasad

No. 62 "Perumana"

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Dr. (Ms.) Shobita Punja

J-231 F/F, Saket

New Delhi 110 0017

Ms. Kalpana Sharma

Independent Journalist/Columnist

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Dr. (Ms.) Mahfuza Rahman

No.202 Amity Apartment

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Dighalipukhuri

East Guwahati 781 001

Prof. Peter Ronald Desouza

Centre for the Study of Developing Societies

29, Rajpur Road

Delhi 110054

Dr. Bharat Patel

Samved Orthopaedic Hospital

3rd Floor, Near Sopan Flats

On Stadium Circle to Commerce College Six
Roads

Navrangpura

Ahmedabad - 380 009

***Ex-officio members from associate
institutions of NFD, Ahmedabad***

Shri Dilip Surkar

Director

Vikram Sarabhai Centre for Development
Interaction (VIKSAT)

Thaltej Tekra

Ahmedabad 380 054

Ms. Pallavi Patel

Director

Centre for Health Education, Training and
Nutrition Awareness (CHETNA)

B-Block, 3rd Floor, Supath-II,

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Shri Dilip Surkar

Executive Director

Vikram A. Sarabhai Community Science
Centre (VASCSC)

Navrangpura

Ahmedabad 380 009

Shri Kartikeya V. Sarabhai

Director

Centre for Environment Education

Ahmedabad 380 054

T.K. Balappan

Secretary

Nehru Foundation for Development

Ahmedabad 380 054

CEE Offices Address List

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Faridi Nagar
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E-mail: ceenorth@ceeindia.org
CEE North: Telefax: 0522-2716570

Regional Cells

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CEE West

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State Offices

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Dist: Jamnagar

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DéCee

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***Nature Discovery & Campsite
Offices***

Sundarvan

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Sundarvan

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Via Okha Port
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CEE Thrust Areas

1. Education for Children
2. Higher Education
3. Education for Youth
4. Sustainable Rural Development
5. Facilitating NGOs and Community Initiatives
6. Drinking Water and Sanitation
7. Education for Biodiversity Conservation and experiencing Nature
8. Interpretation
9. Urban Programmes
10. Waste Management
11. Sustainable Business and Climate Change
12. Eco System based Campaigns for Rivers, Mountains and Marine
13. Disaster Risk Reduction
14. Decision and Policy Makers
15. International Collaboration
16. Research in EE and ESD

CEE Websites

About CEE	www.ceeindia.org
For Youth	www.sayen.org
A Nature Discovery Centre	www.sundarvan.org
ENVIS Centre on EE and ESD	www.ceeenvnis.nic.org
Archival for Green teacher on EE	www.greenteacher.org
For EE Materials	www.edutechindia.org
UNDP GEF Small Grants Programme	www.sgpindia.org
Biomedical Waste Management	www.bmwmindia.org
Documenting efforts to Conserve India's Living Traditions	www.paramparaproject.org
Paryavaran Mitra Programme, one of the largest sustainability and Climate Change Education programmes in the world	www.paryavaranmitra.in
South and South East Asia Network for EE	www.saseanee.org
Programme and activities of CEE Australia	www.ceeaustralia.org
Eco School Programme	www.ecoschools.org
Global Citizenship for Sustainability Marine	www.ceegcs.com
Conservation of Biological Diversity	www.educationcbd.org
Programme for children in schools	www.ceekabiscop.org
Energy Efficiency Network	www.eenetindia.org
Cool Calculator Together We Can	www.coolcalculator.org
Urjchetana	www.urjchetana.in

*Nehru Foundation for Development
Centre for Environment Education
Thaltej Tekra, Ahmedabad 380 054*
(Registered under the Societies Registration Act, 1860)
Regd. No. GUJ/1043 (Ahmedabad)
(Also registered under the Foreign Contributions (Regulation) Act, 1976
vide registration no. 041910044 with Ministry of Home Affairs, Govt. of India)

FINANCIAL STATEMENTS
2016–2017

SORAB S. ENGINEER & CO. (Regd.)
Chartered Accountants

909, ATMA House
Opp. Old Reserve Bank of India
Ashram Road
Ahmedabad-380 009

INDEPENDENT AUDITORS' REPORT

Report on the Financial Statements

We have audited the accompanying financial statements of **NEHRU FOUNDATION FOR DEVELOPMENT - CENTRE FOR ENVIRONMENT EDUCATION - AHMEDABAD ("Society")** which comprise the Balance Sheet as at March 31, 2017, the Income and Expenditure Account for the year then ended and summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements that give a true and fair view of the financial position and financial performance of Society in accordance with the accounting principles generally accepted in India, including the applicable Accounting Standards. This responsibility also includes maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of the Society and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgements and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to Society's preparation of the financial statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of

expressing an opinion on whether Society has in place an adequate internal financial controls system over financial reporting and the operating effectiveness of such controls. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion and to the best of our information and according to the explanations given to us, the financial statements give a true and fair view in conformity with the accounting principles generally accepted in India of the state of affairs of Society as at 31st March, 2017 and its surplus for the year ended on that date.

For Sorab S. Engineer & Co.
FirmRegistration No.110417W
Chartered Accountants

CA Chokshi Shreyas B.
Partner
Membership No. 100892
Ahmedabad

September 23rd, 2017

Receipts and Payments Account for the year ending on 31st March 2017.

RECEIPTS	Rs.	Rs.
<u>OPENING CASH AND BANK BALANCES</u>		80106249
<u>GRANT FROM MINISTRY OF ENVIRONMENT & FOREST, GOVERNMENT OF INDIA, NEW DELHI</u>		
Grant received during the year:		
For Infrastructure Development & Augmentation	0	
For Recurring expenditure	<u>92050000</u>	
Total Grants received from MoEF&CC	92050000	
Add: Sale proceeds of old assets disposed off	<u>0</u>	92050000
<u>PROJECTS AND PROGRAMMES</u>		
<u>Out of Grant from Ministry of Environment & Forest, Government of India, New Delhi.</u>		9972025
<u>Out of Grant from Locally Funded/Foreign Funded and Own Programme</u>		
Sponsored Projects/Programmes	167788588	
Out of Foreign Contributions	54164157	
Own Programmes	<u>14741522</u>	236694267
<u>OTHER RECEIPTS</u>		
Interest on Bank Accounts (Net)	1977682	
Misc Income	4039007	
Services & Products	3877758	
Royalty and Infrastructure Receipts	9973317	
Donation	635100	
Consultancy, Overhead recoveries & Reimbursements.	52132757	
Change in balance of suppliers & others	4444332	
Recovery against Loan to staff	136760	
Receivable on sale of Products/Services	1622463	
Project expenses recovered	735205	
Grant Receivable	18157863	
Change in balance of Advances and Others	<u>3662253</u>	101394497
<u>Total Rs.....</u>		<u>520217038</u>

D. N. Surati
Chief Accounts Officer

Date: 23rd September 2017

Kartikeya V. Sarabhai
Director

Date: 23rd September 2017

Receipts and Payments Account for the year ending on 31st March 2017.

PAYMENTS	Rs.	Rs.
<u>MOVABLE & IMMOVABLE PROPERTIES</u>		
<i>Acquired during the year out of Grant from Ministry of Environment & Forest, Government of India, New Delhi</i>		
Immovable Properties	0	
Movable Properties	0	0
<i>Acquired during the year out of own Income & Project Grant</i>		
Immovable Properties	3751366	
Movable Properties	3372933	7124299
<u>PROJECTS AND PROGRAMMES</u>		
<i>Out of Grant from Ministry of Environment & Forest, Government of India, New Delhi.</i>		
Projects and Programmes	9751775	9751775
<i>Out of Grant from Locally Funded/Foreign Funded and Own Programme</i>		
Own Activity / Own Project & Programmes	30194836	
Locally Funded	166543483	
Foreign Contributions	53580749	250319068
<u>ESTABLISHMENT AND OTHER OFFICE EXPS</u>		
Salaries	122165409	
Other Administrative Expenses	23544440	
Travel	1336065	
Honorarium to Consultants	84232	
Micro Processor Maintenance	819120	147949266
<u>Other Payments</u>		
Change in balance of Project Program grants	36222770	
Change in Amount payable to NGO (Net)	54397	
Tax Deducted @ Source (Net)	1297237	
Security Deposit (Net)	521382	38095786
<u>BANK OVERDRAFT</u>		
Bank Overdraft from IOB repaid	4260114	
Less: Bank Overdraft from SBI received	-502386	3757728
<u>CLOSING CASH AND BANK BALANCES</u>		63219116
Total Rs.....		520217038

We have examined and found correct the above account as per the books of account, vouchers etc. produced before us and as per the information and explanations given to us.

As per our report of Even Date
For Sorab S. Engineer & Co.
Chartered Accountants
F.R.No.110417W
CA Chokshi Shreyas B.
Partner
Membership No. 100892
Date: 23rd September 2017

Balance Sheet as at 31st March 2017.

31-03-2016 FUNDS & LIABILITIES		31-03-2017	
Rs.	Rs.	Rs.	Rs.
<u>CORPUS FUND</u>			
1288000	Balance as per last Balance Sheet		1288000
<u>OTHER EARMARKED FUNDS</u>			
<u>Depreciation Fund</u>			
16900159	Balance as per last Balance Sheet	18430741	
1530582	Addition during the year	1663338	
<u>18430741</u>			20094079
<u>Any Other Fund:</u>			
136010080	Balance as per last Balance Sheet	152385145	
11010019	Addition during the year	7538925	
5913196	Add: Transferred from Income & Expenditure A/c for Infra.Deve. Fund	7475536	
<u>152933295</u>		<u>167399606</u>	
	Less: Fund reduced by the cost of Assets written off/disposed off/transferred during the year	<u>3788213</u>	<u>163611393</u>
<u>548150</u>			
152385145			163611393
<u>GRANT BALANCES:</u>			
Ministry of Environment & Forest, Government of India, New Delhi.			
1637026	Balance as per last Balance Sheet	773454	
114972000	Grant for recurring expenditure credited during the year	105450000	
<u>116609026</u>		<u>106223454</u>	
114972000	Less: Amount of grant transferred to Income & Expenditure account to meet the recurring expenditure incurred during the year	105450000	
863572	Less: Amount of grant transferred to Income & Expenditure account to meet the renovation expenditure incurred for Sundarvan	316012	
<u>773454</u>		<u>105766012</u>	<u>457442</u>
76880211	<i>Projects, Programmes, Workshops, Seminars etc.,</i>		457442
			50073919

Balance Sheet as at 31st March 2017.

31-03-2016 ASSETS		31-03-2017	
Rs.	Rs.	Rs.	Rs.
<u>MOVABLE AND IMMOVABLE PROPERTIES:</u>			
<u>Immovable Properties (At cost)</u>			
Buildings:			
49860235	Balance as per Last Balance Sheet	53784010	
<u>3923775</u>	Addition during the year	<u>3751366</u>	
53784010		57535376	
<u>Movable Properties (At cost)</u>			
Office equipments, Vehicles, Library Books etc.,			
71566690	Balance as per last Balance Sheet	75703284	
<u>4684744</u>	Addition during the year	<u>3593183</u>	
76251434		79296467	
	Less: Written off/Disposed off/ transferred during the year	<u>3788213</u>	
<u>548150</u>			
<u>75703284</u>		<u>75508254</u>	
<u>129487294</u>			133043630
1642834	Vehicles on loan from Dy. Collector, Gulbarga for CHAMP Project	1642834	
	Less: Liability for vehicle-Dy. Collector, Gulbarga for CHAMP Proj.	<u>1642834</u>	
<u>1642834</u>			0
0			
<u>DEPOSITS</u>			
3764617	For Services, Rent Projects etc.,		4125999
<u>LOANS:</u>			
582870	To Staff & Others		446110
<u>ADVANCES:</u>			
1389116	To Staff (One year old Rs. 3,67,461/-, Previous year Rs.3,25,754/-)	1339857	
1478322	To NGOs, (One year old Rs. 5,10,800/-, Previous year Rs. 1,44,705/-)	2193912	
3689700	To Suppliers and Contractors for Projects expenses (One year old Rs. 12,44,535/-, Previous year Rs. 3,64,265/-)	6120579	
14472842	To Others (One year old Rs. 49,41,381/-, Previous year Rs. 48,58,710/-)	<u>8428968</u>	
<u>21029980</u>			18083316
8922478	Income Tax deducted at source (TDS) receivable (One year old Rs. 66,25,148/-, Previous year Rs. 47,63,455/-)		10219715

Balance Sheet as at 31st March, 2017.

31-03-2016 FUNDS & LIABILITIES		31-03-2017	
Rs.		Rs.	Rs.
	<i>Bank Overdraft (Secured against pledge of FDR as Collateral Security)</i>		
5937201	Indian Overseas Bank, Thaltej Branch	1677087	
<u>0</u>	State Bank of India Satellite branch	<u>502386</u>	
5937201			2179473
	<u>LIABILITIES</u>		
29150100	For Expenses	40993855	
634078	For Security Deposits	474078	
265400	Amount payable to NGOs	926593	
<u>27155536</u>	For Others	<u>19756113</u>	
57205114			62150639
	<u>INCOME & EXPENDITURE ACCOUNT</u>		
(11636348)	Balance as per last balance sheet	1117366	
12753715	Add: Excess of Income over Expenditure transferred from Income & Expenditure Account for current year	<u>427301</u>	
<u>1117367</u>			1544667
<u>314017233</u>	TOTAL		<u>301399612</u>

Notes on Accounts as per Schedule "B"

The above Balance Sheet to the best of our belief contains a true account of the funds and liabilities and of the property and assets of the Society.

D. N. Surati
Chief Accounts Officer

Date: 23rd September 2017

Kartikeya V. Sarabhai
Director

Date: 23rd September 2017

Balance Sheet as at 31st March 2017.

31-03-2016 ASSETS		31-03-2017	
Rs.	Rs.	Rs.	Rs.
<u>AMOUNT DUE/RECEIVABLE</u>			
34813180	For Projects, Programmes, Workshops, Seminars etc.	44229658	
25478100	Grant receivable (since received)	20720237	
288514	Interest Accrued on FDR	125548	
1981547	Project Expenses Recoverable	1246342	
7562404	Receivable on Sale of Products and Services etc.	5939941	
	(One year old Rs. 1556203/-, Previous year Rs. 805753/-)		
70123745			72261726
<u>CASH AND BANK BALANCES</u>			
80106249	As per Schedule "A"		63219116
314017233 TOTAL		301399612	

As per our report of Even Date

For Sorab S. Engineer & Co.
Chartered Accountants
F.R.No.110417W

CA Chokshi Shreyas B.
Partner
Membership No. 100892
Date: 23rd September 2017

Income and Expenditure Account for the year ending on 31st March 2017.

<i>2015-16</i>			<i>2016-17</i>
<i>Rs.</i>	<i>EXPENDITURE</i>	<i>Rs.</i>	<i>Rs.</i>
	<u>EXPENDITURE ON OBJECTS OF THE SOCIETY</u>		
	On Programmes and Projects (Own activity as well as sponsored by Governmental and Non-governmental organisations)		
63585404	Own Activities	30194836	
223437985	Out of Local Funding	176295258	
<u>34067586</u>	Out of Foreign Contribution	<u>53580749</u>	
321090975			260070843
	<u>ESTABLISHMENT EXPENSES</u>		
	<u>Salary:</u>		
131950028	Staff Salaries	127165397	
<u>12</u>	Remuneration to the Office Bearers	<u>12</u>	
131950040			127165409
25629842	Administrative and other Expenses	25563120	
	<u>Professional Fees:</u>		
104248	Legal Fees	102737	
<u>115000</u>	Audit Fees	<u>118000</u>	
25849090			25783857
1530582	<u>DEPRECIATION</u>		1663338
	<u>AMOUNT TRANSFERRED TO RESERVE OR SPECIFIC FUND :</u>		
5913196	Earmarked for Immovable/Movable Properties		5075536
0	Earmarked for Gratuity		2400000
12753714	Excess of Income over Expenditure carried over to Balance Sheet		427301
<u>499087597</u>	<u>TOTAL</u>		<u>422586284</u>

Notes on Accounts as per Schedule "B"

D. N. Surati
Chief Accounts Officer
Date: 23rd September 2017

Kartikeya V. Sarabhai
Director
Date: 23rd September 2017

Income and Expenditure Account for the year ending on 31st March 2017.

<u>2015-16</u>			<u>2016-17</u>
<u>Rs.</u>	<u>INCOME</u>	<u>Rs.</u>	<u>Rs.</u>
	<u>INTEREST EARNED:</u>		
2167448	On Savings Bank Accounts and Term Deposits with Nationalised and Scheduled Banks	1834228	
<u>779841</u>	Other Interest	<u>212212</u>	
2947289		2046440	
	Less: Interest allocated to Special Funds and Projects	<u>501636</u>	
<u>491372</u>			1544804
2455917			
16132983	<u>OWN PROJECTS & PROGRAMMES</u>		14710456
	<u>AMOUNT TRANSFERRED FROM:</u>		
	Grant from Ministry of Environment, Forests & Climate Change Government of India, New Delhi to meet the recurring expenditure	105450000	
114972000			
	Grant from Ministry of Environment, Forests & , Climate Change, Government of India, New Delhi, to meet the infrastructure development expenditure	316012	
863572			
	Grants from GO/NGOs for sponsored Projects and Programmes	<u>229876007</u>	
<u>257505571</u>			335642019
373341143			
	<u>OTHER INCOME:</u>		
593900	Donation	635100	
36539283	Sale of Educational Material & EE Products	3908824	
3356172	Fees, Royalties & Other Contributions	9973317	
64002160	Recoveries/Reimb. of Exps.from Project/programmes	52132757	
2666039	Miscellaneous Income including sale proceeds of Assets	<u>4039007</u>	
<u>107157554</u>			70689005
107157554			
<u>499087597</u>	<u>TOTAL</u>		<u>422586284</u>

As per our report of Even Date

For Sorab S. Engineer & Co.

Chartered Accountants

F.R.No.110417W

CA Chokshi Shreyas B.

Partner

Membership No. 100892

Date: 23rd September 2017

Schedule 'A' attached to and Forming Part of the Balance Sheet as at 31st March 2017

<i>Total</i>	<i>Sr.</i>	<i>CASH AND BANK BALANCES</i>	<i>CEE-CORE</i>	<i>CEE-FC</i>	<i>TOTAL</i>
<i>31-3-16 No.</i>			<i>& Projects</i>	<i>Projects</i>	<i>31-3-17</i>
A. CURRENT ACCOUNTS					
<i>In the name of Nehru Foundation for Development</i>					
<i>Centre for Environment Education with:</i>					
181692	1	ICICI Bank Ltd. Drive-in Road Br, Ahmedabad	234119	-	234119
2567545	2	ICICI Bank Ltd. Pune	2313397	-	2313397
2373913	3	ICICI Bank Ltd. Lucknow	193311	-	193311
89270	4	ICICI Bank Ltd. Bhubneshwar	27663	-	27663
324301	5	ICICI Bank Ltd. Delhi	269688	-	269688
14227	6	ICICI Bank Ltd. Guwhati	812047	-	812047
4540	7	ICICI Bank Ltd. Coimbatore	9730	-	9730
82539	8	ICICI Bank Ltd. Hyderabad	36739	-	36739
355709	9	ICICI Bank Ltd. Bangalore	147559	-	147559
30000	10	ICICI Bank Ltd. Goa-Panaji	103141	-	103141
93756	11	CBI, S.M.Road Branch, Ahmedabad.	72098	-	72098
4002446	12	BOI,- Gulbarga (CHAMP)	47433	-	47433
0	13	BOI,- Gulbarga (CHAMP) A/c 406	2405117	-	2405117
10119938		Sub-total "A" Rs.....	6672041		6672041
B. SAVINGS BANK ACCOUNTS					
<i>In the name of Nehru Foundation for Development-</i>					
<i>Centre for Environment Education with:</i>					
68448	1	BOI, Basaveswaranagar Branch, Bangalore.(A/c 6056)	71235	-	71235
215662	2	BOI, Cantonment Branch, Bangalore.(A/c 8435)	29577	-	29577
111239	3	BOI, Gulbarga	115769	-	115769
1859211	4	SBI, Satellite Road Branch, Ahmedabad-Core	118446	-	118446
203942	5	SBI, Satellite Road Branch, Ahmedabad-Projects	853923	-	853923
37801	6	SBI, Satellite Road Branch, Ahmedabad-SDF	39724	-	39724
378933	7	SBI, Satellite Road Branch, Ahmedabad-SWF	516346	-	516346
821419	8	SBI, Satellite Road Branch, Ahmedabad-CAPART	161439	-	161439
0	9	SBI, Lucknow Branch	1293437	-	1293437
677670	10	HDFC, Drive in Road Branch, Ahmedabad	1842238	-	1842238
37704	11	Corporation Bank, Virajpet Branch, Virajpet.	37704	-	37704
30764	12	SBI, Dharampur Branch	30764	-	30764
63	13	ICICI Bank Ltd. - name of CEE-ICEF Project Account, Delhi	67	-	67
76793	14	ICICI Bank Ltd. - DEL-RHSDP Project	79740	-	79740
78034	15	ICICI Bank Ltd. - Guwahati	358939	-	358939
16637	16	ICICI Bank Ltd. Drive-in Road Br, Ahmedabad(CMU & Zoo)	82468	-	82468
559906	17	ICICI Bank Ltd. Drive-in Road Br, Ahmedabad(Do Future)	217612	-	217612
2457253	18	ICICI Bank Ltd. Drive-in Road Br, Ahmedabad (Industry)	1234202	-	1234202
1303821	19	ICICI Bank Ltd. Drive-in Road Br, Ahmedabad (NCB)	180894	-	180894
981778	20	ICICI Bank Ltd. Drive-in Road Br, Ahmedabad (RPG & West)	2301615	-	2301615
1638256	21	ICICI Bank Ltd. Drive-in Road Br, Ahmedabad (Studio)	205813	-	205813
1388416	22	ICICI Bank Ltd. Drive-in Road Br, Ahmedabad (YEN & PM)	547583	-	547583
27759	23	ICICI Bank Ltd. Drive-in Road Br, Ahmedabad (WARM)	171658	-	171658
43424	24	ICICI Bank Ltd. Drive-in Road Br, Ahmedabad (Society)	44174	-	44174

Schedule 'A' attached to and Forming Part of the Balance Sheet as at 31st March 2017

Total	Sr.	CASH AND BANK BALANCES	CEE-CORE	CEE-FC	TOTAL
31-3-16 No.			& Projects	Projects	31-3-17
3953087	25	ICICI Bank Ltd. Pune	1093100	-	1093100
415057	26	HDFC Bank Ltd. - Srinagar Branch	27017	-	27017
27042085	27	HDFC Bank Ltd. - Delhi Branch	5873422	-	5873422
4130498	28	SBI, ESS Project	5776623	-	5776623
9162	29	SBI, WG Project	22608	-	22608
1450353	30	ICICI Bank Ltd. Delhi(CSR a/c)	888706	-	888706
1830298	31	SBI, Bangalore Branch	523707	-	523707
0	32	Kotak mahindra Bank Nfd Cee A/C Camps	201362	-	201362
0	33	Kotak mahindra Bank Nfd Cee A/C West	1031977	-	1031977
0	34	Kotak mahindra Bank Nfd Cee A/C Gulbarga	2849511	-	2849511
<i>In the name of Centre for Environment Education</i>					
<i>Alc. Foreign Contribution with:</i>					
5498355	1	Indian Overseas Bank, Thaltej Branch, Ahmedabad		8220684	8220684
630577	2	SBI, Satellite Road Branch, Ahmedabad-R T T		3467407	3467407
57974403		Sub-total "B" Rs.....	28823398	11688091	40511489
C. <i>FIXED/SHORT TERM DEPOSIT ACCOUNT</i>					
<i>In Term Deposit Account in the name of Centre for</i>					
<i>Environment Education with:</i>					
356798	1	SBI, Satellite Road Branch, Ahmedabad	8137116	-	8137116
0	2	IOB, Thaltej Branch, Ahmedabad	5000000	-	5000000
0	3	ICICI Bank, Aundh Branch, Pune	1237282	-	1237282
300000	4	BOI, Gulbarga, South	300000	-	300000
<i>In Term Deposit Account in the name of Centre for Environment</i>					
<i>Education Alc.Foreign Contribution Fund with:</i>					
7600000	1	Indian Overseas Bank, Thaltej Branch, Ahmedabad	0	-	0
3096167	2	State Bank of India, Satellite Road Br. Ahmedabad	0	-	0
11352965		Sub-total "C" Rs.....	14674398	-	14674398
658943		D. CHEQUES ON HAND	1361189	-	1361189
		- E. CASH ON HAND	-	-	-
80106249		TOTAL "A" TO "E" Rs.....	51531025	11688091	63219116

As per our report of Even Date

For Sorab S. Engineer & Co.
Chartered Accountants
F.R.No.110417W

CA Chokshi Shreyas B.

Partner

Membership No. 100892

Date: 23rd September 2017

D.N. Surati

Chief Accounts Officer

Date: 23rd September 2017

Kartikeya V. Sarabhai

Director

Date: 23rd September 2017

Schedule "B"

Notes Attached to and forming part of the Accounts for the Year 2016-17

1 **Significant Accounting Policies followed:**

1.1 The accounts are maintained on accrual system of accounting subject to following exceptions.

- a. The amount advanced to various Governmental and Non-Governmental agencies for projects and programmes activities are shown under the head "Advances to NGOs and Others for Project expenses" and the same will be adjusted in the books on receipt of the statements of accounts from respective agencies.
- b. In respect of insurance premium, rent and annual maintenance contracts, entry for expenses paid in advance is made whereas such other expenses are accounted for as and when paid.
- c. Liabilities in respect of employees benefits such as gratuity, leave encashment, LTC etc., are accounted for as and when paid.
- d. Advances given to employees for travel, for project expenses and LTC are accounted for as and when bills for respective expenses are submitted by concerned employees.

1.2 ***Use of Estimates***

The preparation of financial statements in conformity with Generally Accepted Accounting Principles in India requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of contingent liabilities on the date of the financial statements. Actual results may differ from those estimates. Any revision to accounting estimates is recognized prospectively in current and future.

1.3 ***Fixed Assets***

Fixed Assets are stated at cost. Cost means purchase price and / or erection / commissioning charges of fixed assets and other charges directly attributable to the cost of fixed assets.

1.4 ***Depreciation:***

The Society has started providing for depreciation on assets from the financial year 2003-04 based on the directions given by the Centre's Finance Committee based on the recommendation of Indian Audit & Accounts.

Depreciation is calculated on Straight Line method on Society's Own Assets and Assets acquired out of MoEF Grant except on Building. The depreciation is accumulated under the head Depreciation Fund.

<u>Asset</u>	<u>Rate(%)</u>
Furniture and Equipment	10.00
Computer & Peripherals	20.00
Vehicle	20.00
Library Books	10.00

Depreciation on additions has been provided for the full year irrespective of date of acquisition.

Depreciation provision has not been made on assets acquired out of Projects/Programme Funding.

1.5 *Investment*

Long term investments are carried at cost less any other than temporary diminution in value, determined separately for each individual investment. Current investments are carried at lower of cost and fair value.

1.6 *Inventories*

Inventories are valued at lower of Cost or net realizable value.

The consumable stores and spares are charged to expenses at the point of their purchases.

- 2 The Society's buildings are constructed on the land of Nehru Foundation for Development.
- 3 Debit/Credit balances of parties are subject to confirmations. Necessary adjustment, if any, will be made in the accounts on settlement of the respective accounts.
- 4 Corresponding figures of the previous year have been regrouped to make them comparable with figures of current year, wherever necessary.

D.N. Surati
Chief Accounts Officer

Date: 23rd September 2017

Kartikeya V. Sarabhai
Director

Date: 23rd September 2017

For Sorab S. Engineer & Co.
Chartered Accountants
F.R.No.110417W

CA Chokshi Shreyas B.
Partner
Membership No. 100892

Date: 23rd September 2017



Centre for Environment Education

Nehru Foundation for Development

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