



Actions
that
Count

Paryavaran Mitra



HAND PRINT
Action Towards
Sustainability

Actions that count

CEE

Centre for Environment Education



Paryavaran Mitra–Actions That Count provides an insight into the experiences in the programme from the perspective of the programme implementers and the various stakeholders related to the school system.

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Foreword

The concept of Handprint evolved from a CEE school programme in the state of Andhra Pradesh, in 2005. Young students in primary schools, often, questioned why environmental issues were usually presented in terms of problems and negative aspects like environmental destruction and degradation. Why do we not talk about what can be done and the potential of changing things around us?

The Handprint concept captures the energy which young people saw in themselves and their desire to do things for a better future. The discussion on the Footprint got transformed into action and the Handprint. The CEE group looking at environmental education in Andhra Pradesh started using Handprint to stand for positive action. Though, the concept was not as developed as we use it today, it certainly represented energy that students could bring to conserve the environment.

It was in 2007, at the UNESCO 4th International Conference on Environmental Education held at CEE Ahmedabad, when we formally launched the concept of the Handprint: Action towards Sustainability. Using the original handprint of Srija, a ten year old girl from in Holy Mary school in Hyderabad, soon we found that like any other powerful concept, it spread from one place to another. There was always a spark in people's eyes when they first heard about Handprint. And, this happens even today to those who hear it for the first time!

Very soon groups in South Africa, UAE/Abu Dhabi, Germany, Canada, Japan and several others in the world started using the concept. People started adapting it and are giving it a new meaning. Soon the Handprint came to represent commitment to positive action. During 2012, CoP 11 meeting of UN CBD held at Hyderabad, India; it was extensively used as a symbol of commitment towards positive action. Before we knew it, people started thinking about the Handprint as a way of calculating the impact of their action. Just like there is a Footprint calculator, people started working on a Handprint calculator. Today there are a few available, although still at a developmental stage.

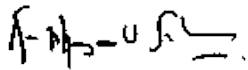
The Handprint means action at a variety of levels: An action done at an individual level, the family, neighborhood or school level. Some were more ambitious by considering actions at city, village, district, state, national and even at the global level. Institutions have adopted Handprint, there are Handprint schools, colleges, offices and zoos. WESSA in South Africa started linking it with curriculum and specific school subjects – what did it mean in Social Science or Science or even Sports?

Soon, one realized that action required for combating environmental issues including climate change are actually to do with everything we do, the way we live, eat, waste things, read, shop and consume. Our lifestyle is intricately connected with consumption. It has become part of one's life.

Hand print in different cultures have their own meanings. In some Indian marriages, the bride puts her handprint with *Kumkum* (Vermillion) a natural colour on the walls representing that she is now accepting her new home.

Handprint is action, commitment, measurement but also it mean a connection – joining hands and a symbol of care. The meaning will keep evolving.

CEE became the facilitator for the evolution of this concept. Now we are in the process of networking with people interested in using the Handprint by launching 'The Handprint Network'. This publication – Every Action Counts, gives a snapshot of how we started and where we have reached in 10 years from that first handprint that was on a school notebook. We hope, that this publication will be a useful guide to build on, and lead to more and more people and groups. making the Handprint their own.



Kartikeya V. Sarabhai
Director, CEE



A symbol from India to the World

Handprint was launched in 2007 at UNESCO's 4th International Conference on Environmental Education held at Ahmedabad, India.



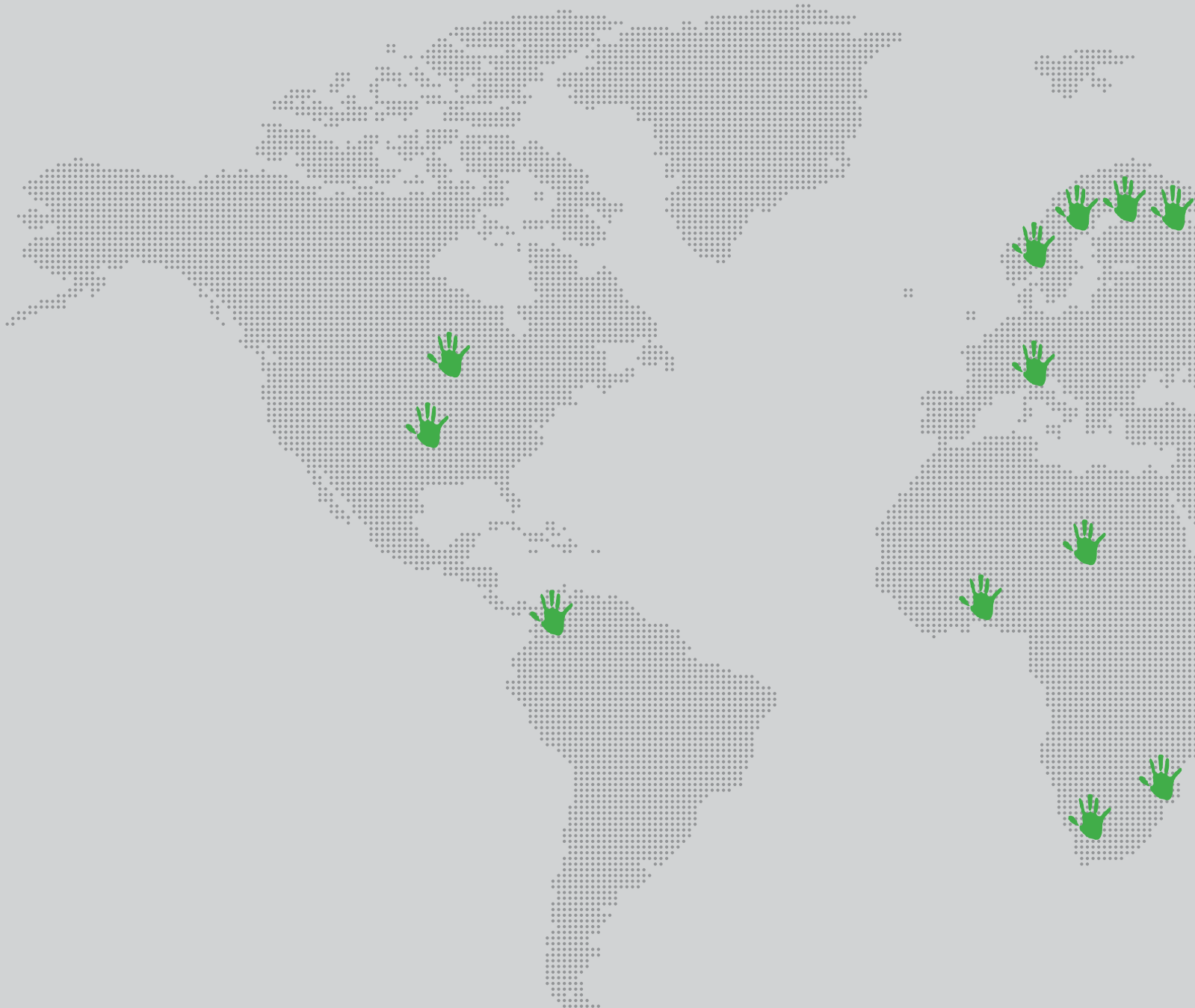
The concept emerged from CEE's environmental education programme in Hyderabad.

The Intergovernmental Conference, Tbilisi 35, held in 2012, mentions Handprint amongst its recommendations. "...Further promote good practices... through building on the 'Handprint' concept which encourages tangible positive ESD actions."



HAND PRINT
Action Towards
Sustainability





Hand Print Around the World

“Through our actions, we add substance and vigour to the quest for sustainable living.”

The Ahmedabad Declaration 2007:
A Call to Action, 4th ICCE



Epilogue

Thank you for those kind words and it would be my honour to attend the Results Ceremony on the auspicious occasion of World Forestry Day. But from 9 to 11 am, me and my friends are engaged in a local plantation drive that we are going to carry as a part of my March Plan. I hope you would forgive me for my absence and if possible, I'll try my level best to give my presence on this benign occasion. I was in tears when I saw that the results have come thus signifying that this incredible journey has come to an halt. Time flowed so quickly, that I didn't realize what wealth to me this programme had brought. Discussing about the next month's project action plan, gathering money, meeting with friends, calling people for the drives and all had become an addiction and almost every now and then only these things came into the portal of my mind. Yuva Paryavaran Leader (YPL) is a programme that even carries and provokes students like me who are completely egregiously delved into studies unaware of the beautiful creation of God outside.

This journey has been incredible and honestly, I didn't ever think I will be able to survive even till the next month. But the first month's project awakened that hidden passion inside me, a colossal will to subdue degradation of the environment. I realized that though studies were fetching me marvellous marks, but there was a pinch of something lost or lacking in me, which was sociability and conviviality which hadn't crept into me as I only devoted myself to books. Today, I am like the most amiable and genial person personage in my school and to my surprise, my neighbourhood too! These 3-4 months have developed me holistically, forcing me to explore every little of my capabilities and today I am much more confident than I was these months before. There is a sense of contentment and pride in me, that I am working for our Mother, who unconditionally has kept on providing us with our selfish needs with a short-sighted approach to life. I am so indebted to you that I don't know how to express my gratitude and hence, I decided to let all of my thankfulness pour through this email. I surely am beholden and am sure that will try to give it back by making a great and a significant change in environment over the continuing years thus making you proud on every step.

This journey taught me how to interact with people, took me out of my comfort zone, drastically enhanced my knowledge and now I exactly know how to convince people or provoke them towards a cause. I sincerely want to thank you for giving me this opportunity as collecting money for street-plays and free distribution of saplings gave me enough much needed exposure for the lung run. The Camp we had at the Diamond Hotel was truly a bliss as I got to know the most enchanting and wonderful person of my life, Sainaa! We are still in touch and very good friends now. I totally credit that to YPL. It was a place where superficiality was kept out of the doors, with total efforts to engulf the children in the light of enlightenment. It was a really a very noble and praiseworthy effort of bringing the young budding environmentalist together ultimately ushering into gems for environment. I never got this chance over the phone or in person to tell all this to you, and today my heart really ached for this. I am truly obliged for awarding me this golden opportunity to be a part of this lovely thing. Being a shortlist enough is very encouraging to me and inspiring enough to prompt me to carry on this work. It has been a spectacular trip, very pleasant, very informative. So when we have come to an end of this exquisite journey, for the last time maybe we are contacting, so I would like to thank you with my full hearted devotion for the beautiful gift and the lovely invite. Thank you so very much again. Hoping to meet you at the gracious ceremony.

Thanking You,

Oshi Garg
CMS Mahanagar

Oshi was one of the participants in the Yuva Paryavaran Leader the student leadership initiative of the programme in Uttar Pradesh for the year 2014. This is a message from her on her insights on being part of the initiative.

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North Guwahati Girls English High School, Kamrup, Assam students fixed taps to public water supply pipes to plug wastage of water to the tune of 19,868 litres of water in an hour when left unattended.



The Paryavaran Mitra programme was launched in Ahmedabad on 24 July 2010 by the Paryavaran Ambassador, Dr. A.P.J. Abdul Kalam, with a goal to create a network of young leaders, from schools across the country, having the awareness, knowledge, commitment and potential to meet the challenges of environmental sustainability in their spheres of influence. The first step in this movement is to engage with students who will be inspired and guided to become Paryavaran Mitra in every aspect of their life, and in every sphere at school, at home and in the community. It is guided by the vision to prepare the young generation to face the challenges of environmental sustainability in the changing social and economic landscape.

The Paryavaran Mitra programme visualizes the engagement of all students in understanding and recognizing environmental issues in a larger context and also in the context of their immediate environment. It promotes a learning-by-doing approach in the class and curriculum transactions, and also active participation by all members of the school community in addressing the issues related to five themes in the school context, through action projects.

The Programme is designed so as to strengthen and enrich the ongoing curricular and school activities, in the context of the national initiatives and imperatives of the Government of India including the Supreme Court Directive with reference to Environmental Education, National Curriculum Framework 2005, and the Continuous and Comprehensive Evaluation.

The Paryavaran Mitra Programme aims to strengthen Environmental Education (EE) as mandated by the Supreme Court Order of 22 November 1991. Honorable Supreme Court in its judgment of 18 December 2003 directed that

the NCERT shall prepare a model syllabus and also directed that “we accept on principle that through the medium of education, awareness of the environment and its problems related to pollution should be taught as a compulsory subject”. As per the affidavit submitted by NCERT and accepted by Honorable Supreme Court, an infusion approach has been adopted for Environmental Education for middle school grades. The Paryavaran Mitra programme focuses on class 6 to 8, and follows the infusion approach by promoting active teaching learning methodologies that bring in an environmental perspective to concepts and topics in the curriculum.

The decision on infusion approach was also an outcome of the nationwide process setup by Ministry of Human Resource and Development in 2004 towards the development of the national curriculum framework. This included the setting-up of a national steering committee and 21 national focused groups. One of these was a focused group on ‘Habitat and Learning’. In substance and spirit, this group was to look into the area of EE.

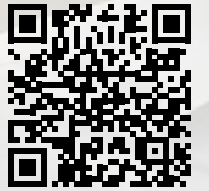
The group delineated the objective of EE as, ‘The main focus of EE should be to expose students to the real-life world, natural and social, in which they live; to enable them to analyze, evaluate, and draw inferences about problems and concerns related to the environment; to add, where possible, to our understanding of environmental issues; and to promote positive environmental actions in order to facilitate the move towards sustainable development. To achieve these goals, the curriculum may be based on:

- Learning about the environment
- Learning through the environment
- Learning for the environment





PLEASE
MR. MOTORIST
WATCH OUT FOR
ME?
PARYAVARAN MITRA



Soumik Karmakar-Paryavaran Mitra Young Leader for Change 2013
Bharat Mata E/M School, Raipur, Chattisgarh from his action project
on regulating traffic and pollution in front of his school.



Paryavaran Mitra is a Handprint programme. Handprint is a measure of Education for Sustainable Development action; action that is directed to decrease the human footprint and make the world more sustainable. Handprint is the symbol of, measure for, and commitment to positive action towards sustainability. Handprint also stands for caring, and working together towards a sustainable future. While the Footprint is a measure of human pressure on earth's resources, the Handprint is a measure of what we can do individually, and together, to restore the balance between consumption and the planet's carrying capacity.



HAND PRINT

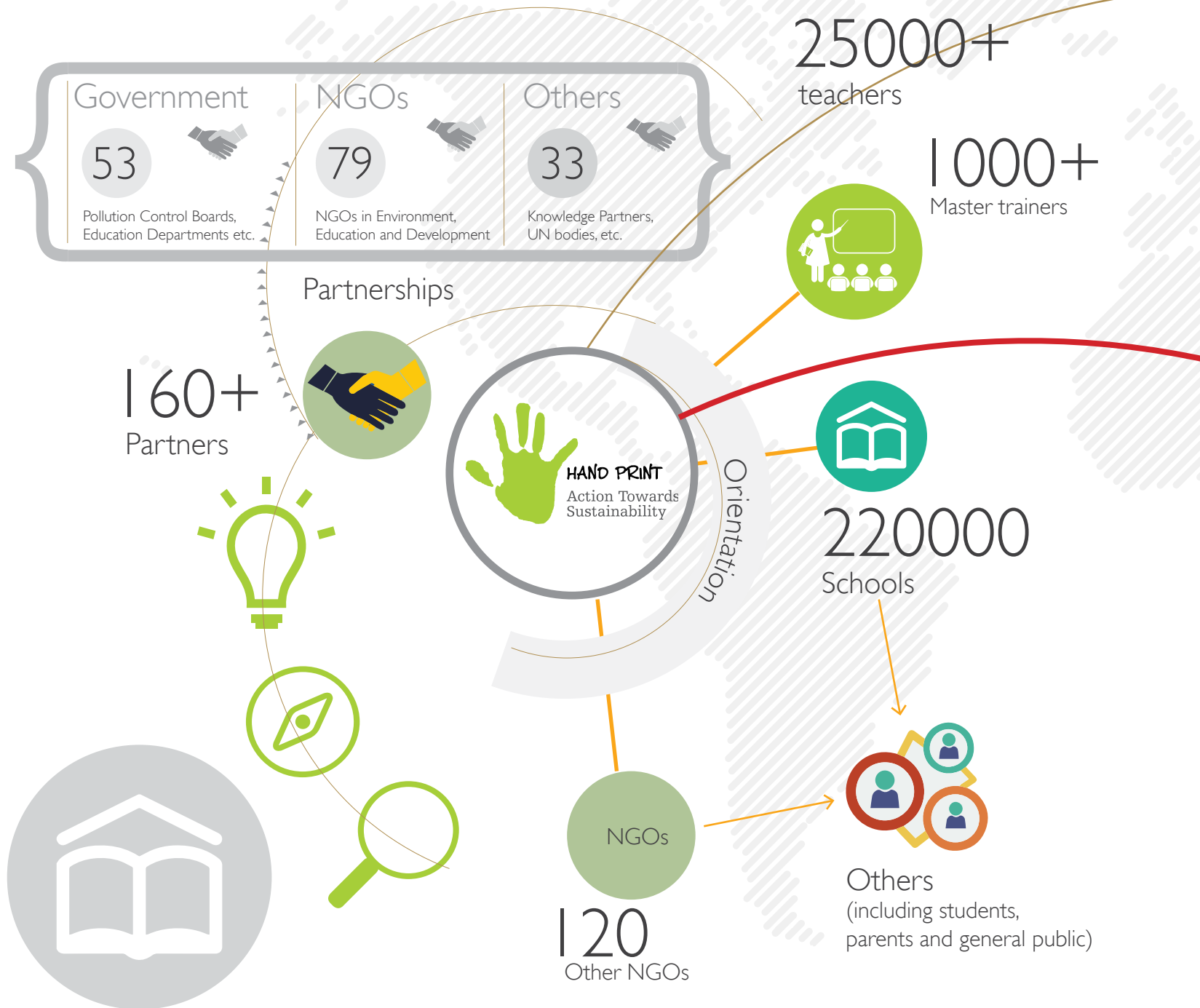
Action Towards Sustainability

Story behind Handprint Logo

It is Srija's hand that shapes the sustainable handprint's logo. Srija, visiting the Holy Mary School in Hyderabad, Andhra Pradesh (AP), gave her handprint when she was participating in a project of the CEE AP, involving taking action for sustainability. She was 10 years at that time. Srija, who inspired this idea, like many million other children, needs to live in a world that is more sustainable. Every action towards sustainability can count towards creating a better world for all to live in.

www.handprint.in

The Programme



Resource Material



#Handprint

13 Indian languages



The Explore, Discover, Think, Act booklet, along with the themes and environmental oath poster has reached 147750 schools and posters reached additional 85000 plus schools in Andhra Pradesh. Paryavaran Mitra Teachers' Handbook is now available in English, Hindi, Telugu, Urdu and Gujarati.

Paryavaran Mitra website is the gateway to school ESD handprint in every district of India and is a repository of ESD resource materials. The programme also has vibrant engagement via social media like Facebook, Twitter and Whatsapp.

- Assamese অসমীয়া
- Bangla বাংলা
- English English
- Gujarati ગુજરાતી
- Hindi हिन्दी
- Kannada ಕನ್ನಡ
- Malayalam മലയാളം
- Marathi मराठी
- Odiya ଓଡ଼ିଆ
- Punjabi ਪੰਜਾਬੀ
- Tamil தமிழ்
- Telugu తెలుగు
- Urdu اُردو



Toll free number
1800-3000-0996

Paryavaran Saathi is the online support in EE and ESD for educators using internet and mobile telephony. The 'Paryavaran Saathi' service is being made available at toll free number.

themes



Water & Sanitation



Waste Management



Biodiversity & Greening



Energy



Culture and Heritage



Ms. Jyoti Chhikara

Teacher, Sri Venkateswar International School,
Dwarka, New Delhi



Paryavaran Mitra is an amazing programme which has provided teachers like me an orientation to classroom activities and action projects to do environmental education through all the subjects. It also allows teachers the freedom to design and implement their own activities. The division of activities into five themes provides an insight into the vast horizon that can be incorporated in environmental education and not just plantation drives.



Ahmedabad Mirror

TEMPERATURE MAX 33.4 | MIN 24.8 | HUMIDITY 56% | FORECAST PARTLY CLOUDY SKY | SUNRISE 0620 HRS | SUNSET 1901 HRS | SENSEX 17968 | NIFTY 5287 | GOLD 33618 | SILVER 57352



Themes are meant to act as an organising principle to guide environmental work, and to be able to see interlinkages amongst the themes.

F.D. High School Ahmedabad carried out an action project to clear stagnant pools of water to reduce mosquito breeding after having studied about the life cycle of mosquitoes. The project overlapped with the themes of biodiversity and water and sanitation. And helped students engage with real world issues.

TURN TO PAGE 6 »

20-lakh strong teen army to combat dengue in Gujarat

Under GSHSEB's new health project, students of class 9 and 10 to check and report mosquito-breeding in their homes to teachers who will inform health department

Yogesh Avasthi
@timesgroup.com

Gujarat Secondary and Higher Secondary Education Board (GSHSEB) has joined hands with the state health department in its fight against dengue and malaria. Under a new health project, around 20 lakh students of class 9 and 10 will check their homes for mosquito-breeding and report the same to their school teacher. The teacher will then get in touch with the health officials who will immediately disinfect the spots.

According to GSHSEB chairman R R Varsani, this is an attempt by the education board to spread awareness among the students regarding diseases caused by mosquitoes and how to prevent them. He said, Normally, we look for mosquito larvae and



Health officials show students of class 9 at F D School in Juhapura specimens of mosquito in its various stages

TURN TO PAGE 6 »



Students from 70,000 Schools across the country selected Dr.A.P.J.Abdul Kalam as the Paryavaran Ambassador.

From campaign to programme From Pick Right to Paryavaran Mitra

The Paryavaran Mitra Programme builds on the Pick Right/ Kaun Banega Bharat Ka Paryavaran Ambassador (KBPA) Campaign of the Ministry of Environment, Forests and Climate Change, Government of India



The slogan CO₂ Pick Right was adapted from the UNEP-WED theme of 2008: CO₂ Kick the Habit to reflect the Indian context.



The Pick Right Campaign generated awareness on climate change issues and the right choices for sustainability.

The Paryavaran Mitra Programme was launched on 24 July 2010 by Dr A.P.J. Abdul Kalam (Former President of India) the Paryavaran Ambassador at CEE Ahmedabad. From (l to r) Dr. S.K.Nanda, Principal Secretary, Department of Forests and Environment, Government of Gujarat, Dr. M.S.Swaminathan, Member of Parliament and Chairman, M.S.Swaminathan Research Foundation (MSSRF), Chennai, Dr. Kalam, and Smt. Mrinalini Sarabhai, celebrated Indian classical dancer, choreographer and instructor and Board Member, CEE.





पर्यावरण मित्र



Smt. Mrinalini Sarabhai



Based on local needs, perceptions and conditions

All resource materials in programme are translated in 13 Indian languages, transadapted to the local context and related to local issues. The first set of resource material included the 'Explore, Discover, Think, Act' booklet which is a menu of 51 action ideas in the along with the Paryavaran Mitra Themes poster and the Paryavaran Ambassador Dr. A. P.J. Abdul Kalam's Environmental Oath Poster.



The Paryavaran Mitra Teacher's Handbook is a comprehensive ready reference for teachers in any school to motivate and guide students to be a Paryavaran Mitra, and to facilitate the whole school community to take handprint actions. The Handbook includes information, and a menu of active teaching learning methods, and action projects, to engage students in exploring, discovering, thinking, sharing, and take action. It encourages the use of immediate school environment and the local environment as resources for teaching and learning, and arenas for demonstrating positive action.



Teachers review and comment on drafts of the resource materials

Demonstrations of classroom activities can be found in the form of videos in English and Hindi on the Paryavaran Mitra YouTube channel

YouTube



<https://www.youtube.com/welcomepm>





Beyond teacher training and good resource material face-to-face interaction is key to empowering teachers with confidence to do project based learning. Teacher workshops focus on introducing teachers to project based learning approaches through classroom activities and action projects.





Teachers are the key facilitators of the programme. They support and guide students in developing the qualities that will make them Paryavaran Mitra. In engaging students in enquiry and action, and promoting development of knowledge, skills and values, they are achieving their ambition through curricular and co-curricular activities.

A Paryavaran Mitra teacher is one who demonstrates his/her commitment by adopting a sustainable lifestyle, attitudes and behaviour. Reflecting this with the children, he or she is becoming a role model true to the values promoted by the programme.



Paryavaran Mitra Teacher Mr. Minil Kumar of Jawahar Navodaya Vidyalaya, WYNAD, Kerala mentoring his students in the action project on Germplasm conservation—collection and preservation of paddy seeds of traditional varieties.

Partnerships

Partnerships are key to the delivery of the programme with a nationwide reach. The initiative is a joint partnership of CEE, Ministry of Environment, Forests and Climate Change, Govt. of India, and ArcelorMittal India. The programme is implemented by a network of agencies at the national, state, and district levels along with our state offices.



सत्यमेव जयते

**Ministry of Environment, Forest and Climate Change
Government of India**



science **express**





science **express**
QUESTION · EXPLORE · DISCOVER

CEE partnered with the Petroleum Conservation and Research Agency for a painting competition on energy conservation. 29553 entries were received from 29 states. in 2012, now a regular activity that schools look forward to. The initiative also saw a unique partnership with the Science Express: Biodiversity Special when painting events were organized at 28 locations.

जल स्वच्छता परीक्षण
ग.उ.प्रा.वि.बीठन





The 'value' in partnerships

During the first three years of implementation the programme has been able to establish itself as a major programme for Environmental Education and Education for Sustainable Development. The programme as a network has generated lots of interest amongst stakeholder to add value to their programmes in India.

The outreach and enthusiasm of the Paryavaran Mitra network of schools, teachers and students has inspired several partners to come onboard and work together to increase the reach of the programme and also to bring depth in the content and delivery.

In the water theme the programme has partnered with Wipro's Earthian programme to look at sustainability issues concerning water: in the vicinity of the school.



In the Paryavaran Mitra-WIPRO 'earthian', Water Project, Govt. Upper Primary School, Beethan, Jalore, Rajasthan students looked at the source of water; water parameters like pH, sulphate, nitrate, etc., calculated water loss due to leakages, and water conservation strategies.

Transformative Education



Curriculum linkages and interdisciplinary

The Paryavaran Mitra programme demonstrates transformative education through curriculum-linked activities and Handprint actions taken at individual, family, school and community levels. The objective of the programme is to strengthen and enrich the ongoing curricular school activities, in the context of the national initiatives and imperatives of the Hon'ble Supreme Court of India's directive that infusion approach be adopted for Environmental Education for middle school grades. The resource materials and capacity building promotes active teaching-learning methodologies that bring in an environmental perspective to concepts and topics in the curriculum.

It also aligns with the Continuous and Comprehensive Evaluation (CCE) system which has allocated 10 points for projects taken up by a student which could be anything from exploratory, research to action projects.



Explore
different
environmental
issues in the local
environment



Discover
the issue to work
on and find out/
research the issue



Think
about the
issue from the
perspective of all
stakeholders



Act
to prioritize an
action that will
help address the
issue with the
involvement of the
stakeholders



Share
successes/learnings/
challenges in the
school community
and to the
community outside
the school through
various mediums.



Completing a learning cycle of
Explore, Discover, Think, Act
(EDTA)

Class Activity

Demonstration, Discussion

How much water is available?

Handbook pg no. 27 *

To demonstrate the distribution of water on earth and how much water is available for our daily uses

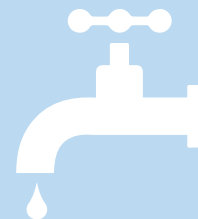


Observe, Calculate, Measure and Estimate,

Dripping Tap

Handbook pg no. 33 *

To explain how much water is wasted from leaking taps

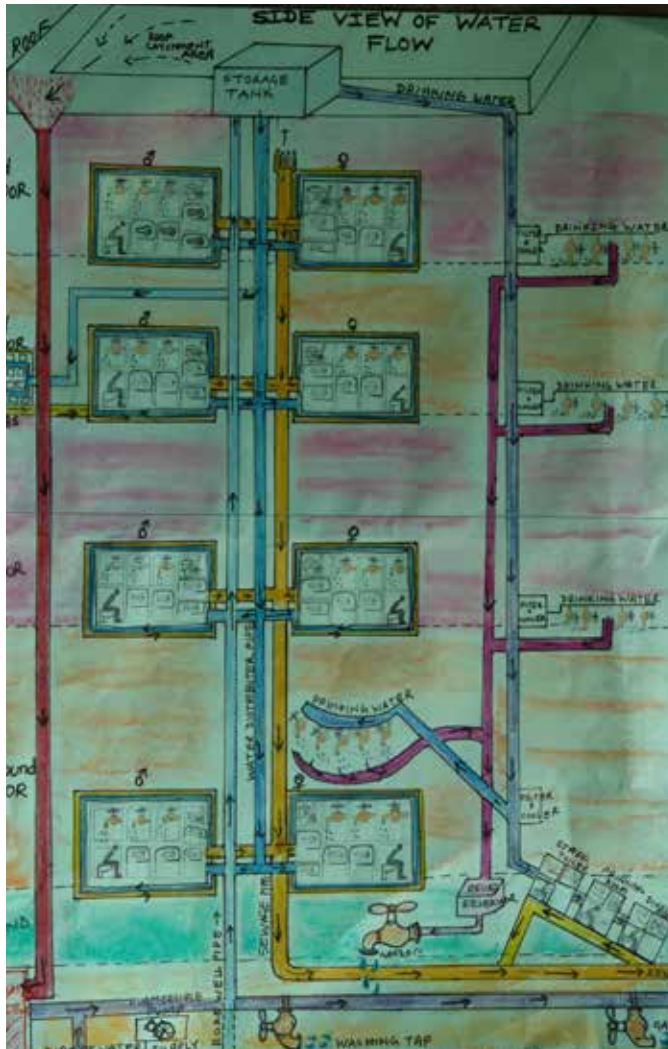


Class Activities are **curricular**. They can be effectively used to **teach** the text book lessons.

Class activities can be linked to the appropriate points in the textbook lesson where they can help in better **explaining** or **demonstrating** the **concepts**.

These **activities** can be carried out as a part of the regular classroom teaching within the prescribed time/period.

Class activities are useful to the teacher for **assessment, evaluation, assignments, class work** and **homework**. *



Water audit exercise of St. Kabir Residential School, Hisar, Haryana looked at the various water uses in the school

Observation, Recording,
Data Analysis



Action

Students in a school in Andhra Pradesh clean the area around the water pump to prevent breeding of mosquitos.

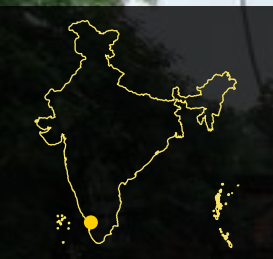
Action Project

Students take the lead in **planning** and carrying out the activities and the teacher is the facilitator. The students see the teacher in a different role as a fellow team member rather than a director of learning; this change of **perception** creates a different kind of dynamics between the teacher and the students.

Action projects are important opportunities for building **life skills** as students get the chance to learn and apply skills in **real-life situations**. They provide opportunity for all round development.

Action projects necessitate **interactions** with the larger school community and the outside community thus making important links. Learning is enriched by this linking.*

Pandya, M., Gorana, R.N. (2011). *Paryavaran Mitra: Teachers' Handbook*. India: Centre for Environment Education



Fills up gap of teaching EE where schools are not seriously teaching EE in classes. Even after 10 years of Supreme court orders schools are struggling how to teach EE to the students of Primary and Middle classes. Teachers are not sufficiently trained to take up this challenge and task and the students are suffering.

Dr. C.M. Seth

Chairperson WWF-India (Jammu & Kashmir)



”

Kuthuparamba High School, Thokkinlangadi Kannur explore the various aspects of the rice crop, a staple in South India. The aspects include cultural practices, value chain, cultivation, biodiversity, consumption patterns, urbanization, etc.



Beach cleaning action by eleven Paryavaran Mitra schools in the Ganjam, Odisha. The beach is the famous location for the breeding of the rare species of the Olive Ridley turtles. Every year, these turtles travel to the Odisha coast for mass nesting and breeding.







A student from Government Secondary School, Rong, Sikkim studies the caterpillar of what is most likely to be a Pale Tussock Moth, *Calliteara* sp. This is as part of a survey for the local biodiversity register of local flora and fauna.

Handprint Action

School Handprint

Exemplar leadership has been shown by schools and its stakeholders in engaging students in handprint actions. The Puraskar every year sees entries from a variety of schools from all over India who have provided immense support to teachers to give their students real life experiences, evident in the classroom activities and action projects teachers have been able to design showing clear curriculum linkages across subjects and benefits to the community and the environment.

Teacher Handprint

Teachers reflect on their teaching practices and what their students are learning through project based learning. Teacher reports suggest they are getting comfortable with project based learning by establishing curricular linkages across subjects. They have worked to make the school environment a living learning space for their students with support from the school management, teachers, non-teaching staff, and parents.

Student Handprint

Students action over the years have shown that students engage in understanding environmental issues and initiate action, an important step in project based learning. Students reflect on their work and the skills they gained for life while doing these projects.



Young Leader for Change

Paryavaran Mitra Young Leader for Change (PMYLC) is a student initiative of the Paryavaran Mitra Programme. It is a cadre of students involved in environmental action projects addressing local environmental issues. The initiative aims to develop leadership skills amongst students through a process of learning by doing and in the process demonstrate to teachers ways to engage students in action projects aimed at helping them develop 21st century skills. It achieves this by engaging students in the educational process of developing an action plan, implementing it, sharing results/experiences and reflecting on their own learnings in the process. The



Young Leader for Change Milestone

Announcement and invitation of action project plans from students



Telephonic conversations with students giving them inputs

Consequent **drafts of action plan** from students



Workshop of students for helping them strengthen their action plan through peer review and with help of mentors and experts

Students **implement** the action projects for five months and share results via social media, films, written pieces or any other format of their choice



Reflecting on work throughout by means of **self-evaluation** formats halfway and towards the end of the project

Evaluation process for the Paryavaran Mitra-Young Leader for Change Award



Sharing experience and receiving recognition at a national forum

Continuing their action and mentoring new students in the coming years





Shreya Srinivas
Bal Bharati Public School,
Dwarka, New Delhi



I have to continue my efforts regardless of what others think/ do/ don't do. It gives me great pleasure and pride to play my miniscule part in helping the environment.



Set up a composting unit (Khamba) with parents' support on her floor in the housing complex for composting the organic waste from her home and her neighbours' homes.



29th Jan, 2012

Today, we bought the composter or Khambha as we call it. My parents and I understood the process of how composting has to be done. We have kept the Khambha on the corridor outside the house.



30th Jan 2012

My mom and I separated the bio degradable wastes from the kitchen and put it in the composter. According to the instructions, I first put a newspaper, then garbage, then the diluted EM solution and stirred it well with a rake. I also put some coco peat (sawdust like material) and dried leaves to avoid smell and flies.

2nd Feb, 2012

Today, I asked two of my friends to accompany me to some houses and talked to them about our project. We explained our objectives, and explained the process of composting to them. I have asked them to put their garbage in the composter.

3rd Feb, 2012

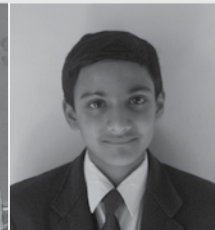
Today, I saw that the neighbors had put their waste even before me! :)

27th Feb, 2012

The tiers are filling up, today the 2nd tier got filled.

5th March, 2012

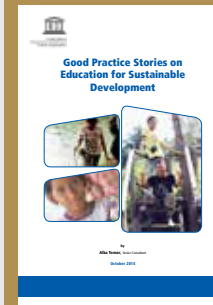
Today I noticed lots of flies coming from the composter when I opened the lid. I called up the person from whom we bought the composter to ask as to what I should do.



Anushka Kale

Manasarowar Pushkarini Vidyashrama,
Mysore, Karnataka

Initiated the action project to conserve Mysore's Heritage Lake Kukkrhalli by connecting Mysoreans through faceto-face interactions, and online petition on Change.org. A perception study revealed that people were concerned about the wellness of the lake and it's biodiversity. Several parameters of the health of the lake were monitored and decision makers were informed to initiate action to improve the quality of the lake.



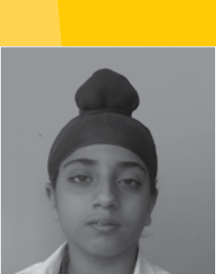
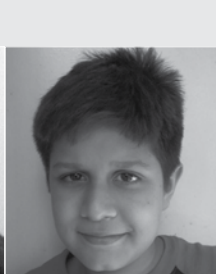
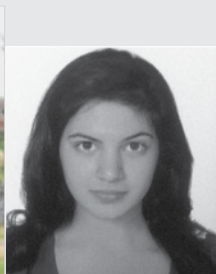
change.org
facebook.com

Umesh Sharma

Government Jain Gurukul Hr. Sec. School
Beawar, Ajmer, Rajasthan

“ *I want people to be kind and friendly with animals.* ”

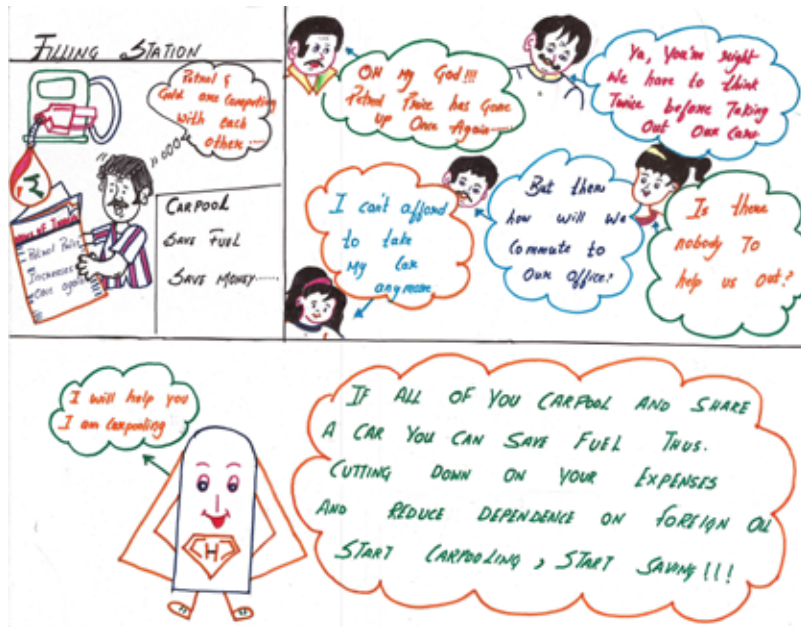
His project was to raise awareness of the irrelevance of Aida tradition in today's times *Aida* is a socio traditional practice during Holi festival in Rajasthan. During Holi people go out in groups in the neighbouring forest area and hunt burrowing animals (which are a plenty during the harvest season) as game, by making loud noises that scare the animals into coming out. They kill them with sticks and stones as they consider them pests.



Chetan Duggirala

Tejasvi Vidyaranya, Hyderabad,
Andhra Pradesh

“ It was like “an elephant in the drawing room”. Most of the interviewees were aware of the advantages of carpooling but everybody was ignoring it due to some inhibitions and also due to lack of interest. ”



Noticed the congestion on the road in front of his school and how they comprised of a single person in each car headed towards the new IT companies nearby. He explored if there was carpooling in place, and if they did then why did people not prefer to carpool.



Indulakshmi.S.

Jawahar Navodaya Vidyalaya

Lakkidi, Wynad, Kerala

Germplasm conservation– collection and preservation of paddy seeds of traditional varieties. Listed traditional paddy varieties of the different tribes in Wynad with the help of her teachers and the experts from M.S. Swaminathan Research Foundation, Kalpetta. She interacted with the local community to gather traditional knowledge on some varieties to make a case for conserving these varieties and for going back to planting traditional varieties of paddy.

“My biggest successes in this project were that I understood the process of paddy cultivation without harming the ecosystem, I developed good interpersonal relation with many experts in this field and the local community. My friends and I now understand the importance of conservation of traditional paddy varieties “



Hasi Patro

Phulbari Sitala High School, Sagar Islands,
West Bengal

Worked to improve productivity of mango fruit crops and economy of the people of Phulbari, Sagar Island and establishing a nursery of good quality mango plants by developing the skill of grafting techniques. She has learnt and passed on the skill of Mango grafting. Nursery of 265 plants of local mango seeds established.

“My skill in grafting technique & nursery management & love for gardening is developed. Regular maintenance during winter & summer is most important to keep the plants in surviving condition. As we have started another project on Kitchen gardening, maintenance will not be a problem.”



“

... from the research on benefits of students participation in community issues it is seen that such initiatives help develop several skills like problem solving, critical thinking, and interpersonal communication. It exposes them to diversity, multi culturalism and different ways of thinking, and the values of treating each other with kindness and care. Overall it enhances self esteem, self efficacy and improves mental health.

”



Mr. V. N. Garg,

Agriculture Production Commissioner and
Principal Secretary Environment and Forests at
the Uttar Pradesh State Level Yuva Paryavaran
Leader Summit 2014

Yuva Paryavaran Leader Programme

Paryavaran Mitra Young Leader for Change has been initiated in Uttar Pradesh in partnership with the UP Pollution Control Board called 'Yuva Paryavaran Leader Programme'. 50 young leaders were mentored on projects at the home, school and community in the academic year 2014-15.

Water conservation campaign in school including student interactions and specific water saving strategies. Impact of the campaign stands at reducing water wastage from 1520 litres to 545 litres per day (from water taps, gardening, washing, and others) after a campaign period of three months



“

For measuring the impact of our work we decided to do a before and after survey which showed us results of our activities. Showing that now almost three times less water is wasted in daily activities as compared to the time of starting of project. Seeing the impact of our work through this process was fascinating for us.

”

Abhinav Mishra

Kendriya Vidyalaya Gomti Nagar,
Lucknow, Uttar Pradesh



Diversity of Action Projects:



BD:
 Plantation, bird nest installation, medicinal plants and awareness rallies, bird enclosures facilitating observe bird behaviour, rescuing strayed animals, monitoring sparrow nos. before and after installation of nests and feeders.,



Energy:
 audit, rally, signage around school for energy conservation, PUC tests, .



Waste:
 waste segregation, dust bins installation, best out of waste and used in school, stop food wastage campaign, reduce water wastage, textbook hand-down, Paper bags made and distributed among local small shops.



Water
 Rain water harvesting pit.



Culture:
 Streetplay, road show, ppts. , rally for safe festival, heritage walk, safe festival drives, Talk to the principal on eco-friendly building design.





Biodiversity:
bird nest,
vegetable garden,
ornamental plants and
medicinal, Mixed composed
pit, Nursery ,Vegetable
garden, flora and fauna
identification, kitchen
garden,.



Water:
reduce the
pollutant of water
at pond in the village as
it is using drinking water
for the people, Distilled
water plant, fixing
leaking taps.



Culture:
Eco friendly
festivals, Drama
team



RURAL PRIVATE SCHOOL



Energy:
rallies, instead of
burning coal or wood,
outer cover of coconut
thrown at temples used as
biofuel, solar energy operated
machine for seed dispersal,
grinding mill powered by
cycle designed by studs.
Solar & Wind Mill.



Waste:
book bank to
distribute old books
to students, collection
of waste materials
from nearby temples,
Vermicompost, paper
recycling.



Energy:
Energy
Audit, CFL Replaced,
Power Count challenge
implemented by the school
involves 447 households,
Students conducted a survey
about cooking gas cylinders
vs solar energy use for
cooking.

RURAL GOVT. SCHOOL



Culture: Eco
friendly festivals, rallies
on environment themes,
Elayonam (focusing exclusively
on leaf vegetables and traditional
food items based on them), Curry
Koottam (competition for women's
self help groups to prepare leaf
based traditional food items),



Biodiversity:
Rallies, Plantation,
medicinal and vegetable garden,
Tree plantation to prevent soil erosion
and changes in the river path, Students
have also learnt that birds like specific colors
and therefore, have painted the nests in only
those colors. A total of 32 nests have been
created of which 30 have already been occupied!,
Students conducted a survey to measure the
impact of a mobile phone network tower on
local biodiversity, Live fencing watered daily
and maintained by students and teachers,
Medicinal plants project & seed
bank(paddy).



Water:
Water
harvesting RWH,
and waste water
diversion to plants,
soak pits



Waste:
Waste segregation,
Waste recycling,
composting, Animal
eating Waste, Nests
making.

Setting Benchmarks

Moving from the conventional teacher driven EE and ESD in schools to student led projects is one of the ongoing challenge in the programme. In addition to capacity building there is the need to set benchmarks for excellence.

One such initiative to set and demonstrate benchmarks is to identify and recognise exemplary work through the Paryavaran Mitra Puraskar (Paryavaran Mitra Awards). The annual award process invites entries from schools, teachers, students on the basis of the criteria (benchmarks) that focuses on encouraging teachers to reflect and see the teaching and learning process from a competency perspective.



Devendra Arora



Shri Prasad R. Menon, Chairman, Tata Singapore Airlines and Board Member, CEE presents the Best Student Award to P.Aishwarya of BVB Jubilee Hills, Hyderabad for her action project on transportation in her housing society.

Dr. Ashok Khosla





NEW ERA HIGH SCHOOL BEAUTIES OF PONDS

Kamekash
Raj Parohit
Mrs Anita K...

STASSOLAI POND

POIRA HIGH SCHOOL, POIRA - GOA

PROJECT ON ENVIRONMENT WITH EMPHASIS ON FISH, LIMBS AND ANIMALS IN PONDS, MAINTAINING A LIST OF FISH & OTHERS ALIVE

INTRODUCTION

Water is a precious natural resource. It is essential for the survival of all living organisms. In our country, water is being used in an unscientific manner. This is leading to a shortage of water in many parts of the country. We should conserve water and use it judiciously.

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ADDITIONAL METHODS

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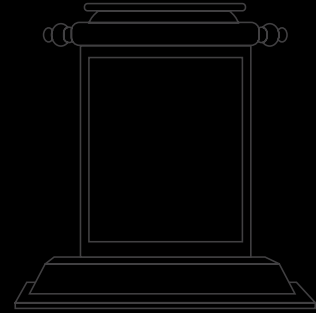


Paryavaran Ambassador Dr. A.P.J. Abdul Kalam at the Maharashtra launch of the programme in Pune interacting with students of Poira High School, Bicholim, Goa

Events as Platform



Mr. Bernard Combes, Communication and Information Officer, Section for Education for Sustainable Development, UNESCO, Paris presents Adityaraj Shrivastava, High School Raipur Chor, Rohtas, Bihar for exemplary work on organic farming in his village. The Puraskar 2012 were conferred at the COP11 of the UN CBD conference in Hyderabad, October 2012.





process is outlined as explore-discover-think-act-reflect/share (EDTAS).

Engagement and handholding

The key to maintaining any relationship is engagement and communication. The programme has several means and initiatives to keep the schools engaged in handprint actions.

Paryavaran Saathi is the online support for educators, which is an initiative to leverage the opportunities (internet and mobile telephony). It is a support system for teachers and schools for transacting EE and ESD effectively. This one-of-its-kind initiative aims to deploy the latent potential of professionally qualified individuals, working from home, to support teachers in doing handprint actions by being '**Paryavaran Saathi**'.



Paryavaran Saathi

Toll Free Number

1 800-3000-0996

paryavaransaathi@ceeindia.org

Communication mediums

Website: Paryavaran Mitra website is the gateway to school ESD handprint in every district of India and several ESD initiatives. The website is a repository of resource materials in all languages and topics, good practices in ESD and the latest in ESD in India.

Newsletter: The fortnightly newsletter covers handprint action of schools and the latest initiatives in the programme. The newsletter is now a potential medium in the network to recognize good work done by schools, teachers and students and also to motivate other stakeholders to initiate action. It has been received well in several quarters including the international network.

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

Ms. Bríd Conneely

Eco School Coordinator Foundation for
Environmental Education, UK



Campaigns

Campaigns are another means by which the engagement in the network is kept alive and also an opportunity for new partners to associate with the programme. The major campaigns that were initiated, were the PCRA painting competition engaging students in creative expressions in the theme of energy, Power Count Challenge which looks at schools taking up action in their environment on saving energy through responsible behaviours. To quantify the change, participants had to send their electricity bills for the “saving months” and for the same period of last year. The World Water Day, Earth Day and Eco-Holi Campaigns help students look at the global and local implications of water conservation.



50

In the Power Count Challenge 2012 students of the Podavoor AUP school from Kasargod district, Kerala conducted a survey of more than 430 households to commit to save energy.



Earth Day >



< PCRA
Painting Competition



PCC >
Electricity Saving Campaign



< UN World Water Day



Water for Life >
Slogan Competition



Green Wave >
Plantation Campaign



*I am Swachh
I am Swasthh*
Waste Management Campaign

Earth Charter >
Photography Competition



Eco-Festivals Campaign >
Holi, Ganesh Festival, Diwali

World Wetlands Day >





Prize winning entry of Mr. Hopeland P.
of the Paryavaran Mitra Earth Charter
Photography Competition 2011 on the
Earth Charter themes.

Recognitions for the programme



Highlighted at RIO+20 Conference in a Side event.



Project case study shortlisted by 7th World Environmental Education Congress (WEEC 2013), Morocco



Highlighted in Convention on Biodiversity, India, 2012 (COP 11)



Recognised at one of four Good Practices in ESD by UNESCO and as a good practice in ESD from India for the End of Decade of ESD 2014 Conference in Nagoya, Japan.



Project recognized as one of the best practices globally by UNESCO and International Business Leaders Forum, London, 2012.

- UNEP ASIA Pacific Office recognizes the programme as its initiative in India
- Case Study presented at RCE Conference held in Thailand

Learnings from the programme

Going beyond the symbolism of EE ▶ The five themes have helped teachers look beyond the classic plastic, pollution, plantation as environmental issues and projects to think about other areas of concern connected to social issues in and around the school.

Hand holding teachers to practice, evaluate, reflect, and share ▶ Beyond teacher training and good resource material face-to-face interaction and hand-holding in planning for curriculum linkage is key to empowering teachers with confidence to do project based learning.

Engaging the network by sharing case studies of other teachers work through platforms like the Paryavaran Mitra Puraskar (awards), events, conferences, and online modes like the newsletter, website, etc. has helped teachers with new ideas to improve their practice.

Dilution at different levels of implementation ▶ Dilution occurs at various levels by virtue of the number of people involved in delivering the programme and several other reasons such as lack of resources, remoteness, implementers' biases, etc. Engaging the network and capacity building play a key role in better delivery of the programme.

Focussing on the other 'E' in Environment Education Schools see EE only as a means of environment improvement activities with environment outcomes. That EE can be a potent approach in achieving education outcomes in the knowledge, attitudes, skills, and behaviours has been a slow realization process in the network. Several initiatives under the programme like the awards and the Young Leader for Change have helped to 'show' how educational outcomes can be achieved through EE. ▶

What teachers think students learnt through action projects? In the Puraskar 2014 teachers reported that students have developed several skills like observation, survey, critical thinking, reasoning, team work, time management, overcoming conflicts, sharing of resources and a sense of accountability and responsibility towards nature.

What students learnt? In the student leadership initiative Young Leader for Change it was observed that students tended to choose issues without giving much thought to understanding the situation. As programme implementers, in subsequent iterations we laid greater emphasis on understanding the problem and not only looking at the 'solutions'; that exploring an issue is a valuable pursuit in itself. The perception of an action project amongst students and teachers has shifted to focusing on the journey (exploring) than the destination (of finding solutions only).

ЯReflections

Education for Biodiversity Conservation – Experiences from Paryavaran Mitra

Authors: Pramod Kumar Sharma and Annie Gregory

Article: Education for Change-A publication of the Environmental Information System (ENVIS) centre on environmental education

Paryavaran Mitra (Friend of Environment) an initiative of CEE with ArcelorMittal and Ministry of Environment and Forests, is an effort to improve teaching and learning in schools through activity based transaction of textbook content and action projects aimed at solving environmental problems in local context. To broaden

the thinking of environment, the content is organized around 5 themes – Biodiversity and Greening, Water & Sanitation, Waste Management, Energy and Culture & Heritage. Schools across country have taken up various projects in the theme of Biodiversity. The common projects taken up by the schools are as follows:-



Students of JNV Wyanad harvesting vegetables in the school's greenhouse

Demonstration in schools	Medicinal garden, butterfly garden, vermi-compost, vegetable garden, green/live fencing, nest making, bird feeders, improved chullah (stove), shelter using creepers.
Campaigns	Gift a plant drive, natural colors for Holi, adopt a tree, socio-cultural practices among communities, eradication of invasive species, community awareness activities.
Improvement action/Conservation with Outreach to community	Conserving local sacred groves, plantation along road side, coastal plantation of mangrove saplings, distributing medicinal plant seeds to communities, vegetable garden in students home, prevent land degradation by plantation, bird feeders, beach cleaning and turtle nest protection, organic farming, and animal rescue.
Setting up of museum/collection	Seed bank, biodiversity signages, herbarium, feather collection.
Research	Biodiversity around mobile phone towers, bio mapping/biodiversity register, survey of marine biodiversity.



The above classification is not mutually exclusive and there are overlaps. The projects taken-up by schools in rural areas are more diverse, relate more towards solving issues and communities around them as compared to urban areas where there are limitations in terms extending actions beyond schools due to time and space constraints. The biodiversity projects taken-up by the schools provide ample scope to link it with the curriculum which is centered around the following as per the analysis done on infusion by NCERT.

1. Knowing the Environment and Interdependence - social and natural and our dependence.
2. Environment and Natural Resources - essential for life and life activities, a habitat of plants and animals, utilization of resources for developmental and social activities.
3. Ecosystems, balance in nature and eco-system interaction between living and non-living components, structure and function.
4. Effect of human activities and population growth and restoring balance in ecosystem.
5. Role of individuals, community and government in planning, decision-making, legislation and social action for prevention of pollution and improvement of environment.

To encourage schools to share their projects, Paryavaran Mitra Puraskar were announced last year. The analysis of the projects reports/submissions by schools/students have shown following outcomes

1. Skill development for conservation action – observation, documentation, designing tools for survey/audit, data collection and analysis, use of different media, construction of nests, setting up of garden, etc.
2. In-situ and Ex-situ conservation of biodiversity – Nest building, gardens, Seed Bank, sacred groves etc.
3. Community outreach – Demonstrations, awareness and action from schools to home, dissemination of findings, traditional knowledge documentation of practices related to biodiversity.

Sharma, P., Gregory, A. Education for Biodiversity Conservation –Experiences from Paryavaran Mitra. Education for Change-Volume 19, 2013-14. Activities, programmes and initiatives in EE and ESD. A publication of the ENVIS centre on Environmental Education Volume 19, 2013-14



Making Environmental Education Work: An Analysis of Action in Performing Schools

Authors: Pramod Kumar Sharma, Ritesh Sinha and Annie Gregory



Abstract

The Paryavaran Mitra (Friend of Environment) programme with an outreach of 219888 diverse schools in India. The programme offered in 15 languages, linked to local curriculum and is implemented with 160 partners ranging from UN agencies, education departments and grassroots organizations. It strengthens the recent policy changes introduced, like compulsory EE, project based learning and continuous and comprehensive evaluation. The paper shares the learning outcomes and context of EE through analysis of 92 reports which were received as nominations for the annual awards in October 2012.

Key words: - Project Based Learning, Policy, Partnerships, Learning Outcomes, Resource Mobilization, Environmental Education in School.

Sharma, P., Gregory, A. and Sinha, R. (2013) Making Environmental Education Work, Web, World Environment Education Congress 2013.

http://www.weec2013.org/adminweec/frontend.php?lang=EN&mod=program&act=detail_abstract&id=202&idA=667



Changing role of the teacher in building environmental leadership skills amongst students - experiences from student environmental action

Authors: Annie Gregory and Pramod Kumar Sharma



Abstract

Even as actors in the education recognize the need to build students' skills to join a global workforce and adapt to a constantly changing world, we see that teachers find it difficult to teach students in ways that achieve these objectives.

Environmental Education (EE) and Education for Sustainable Development (ESD), as with all other subjects in the school at present is teacher-led with students as passive receivers of information. Studies in environmental education indicate that to build environmental leadership students need to be engaged in real life experiences of planning, implementing, problem-solving, working as a team, etc.

To address this issue and to make teachers understand this as a learning process, it is essential to 'show' examples of what student initiated environmental education could look like. What could be their learning outcomes? What environments facilitate such work? What skills/competencies do students acquire? What role does the teacher play?

The paper shares experiences from the Paryavaran Mitra Young Leader for Change, the student initiative of the nationwide sustainability and climate change education programme, Paryavaran Mitra. In this, students from rural and urban areas prepared and implemented action projects on environmental issues in their vicinity. It also discusses and invites inputs on the aspects of the initiative which might connect or overlap with what we know about 'innovation' and 'entrepreneurship'.

Key words: student leadership, competencies, teacher capacity building, student entrepreneurship, student innovation, education for sustainable development, environment education, school education, learning outcomes.

Sharma, P., Gregory, A. Sharma, P. (2015) *Changing role of the teacher in building environmental leadership skills amongst students - experiences from student environmental action*. Presented at the International Conference for Creativity and Innovation in the Grassroots (ICCI 3). Indian Institute of Ahmedabad, Gujarat, India.

Learning to Live Sustainably: Reflections based on the Paryavaran Mitra programme.

Authors: Pramod Kumar Sharma and Annie Gregory



Article: Learning Curve – A newsletter from Azim Premji Foundation

Paryavaran Mitra – A ‘Handprint’ approach to education

Paryavaran Mitra brings to itself CEE's learning of more than 30 years of working with schools systems in varied contexts. Designed as a Sustainability and Climate Change education programme employs ESD as a means of education. The programme launched in 2010 after a successful ‘pick right’ campaign with two lakh schools on climate change education and the selection of Paryavaran ambassador. Dr. A.P.J Abdul Kalam was chosen by children as the Paryavaran Ambassador and the enthusiasm generated by the campaign was an opportunity to focus on a programme with Project Based Learning as pedagogy. Handprint then became the symbol of the engagement of children from classes 6 to 9 in action towards sustainability. The emphasis of the programme is on ‘activities’ that are linked to the curriculum replacing the conventional methods to help children understand the relevance of the Handprint approach in the local context or our lives, and apply it. In a way it challenges the role of a teacher to a fellow learner with no qualms in creating a new culture which says, ‘I do not know that and shall we find it together’.

The activities might include audits (surveys, interviews, etc.), demonstrations, games, field visits, performances, experiments, raising a medicinal garden or setting up a system of waste management that helps students to learn concepts through experiential learning in their immediate context. Such an approach helps children to actually ‘see’ different interconnections. It helps them see an issue from different perspectives of the people connected with the issue. Knowing that helps them to think of various possible ways to address the issue from the people who directly experience it. This is a different approach to what we call ‘problem solving’ where the emphasis is on the process rather than just environmental improvement. Where, all that matters is that one sees the details.

Sharma, P., Gregory, A. (In Press). Learning to Live Sustainably: Reflections based on the Paryavaran Mitra programme. Learning Curve, A newsletter from Azim Premji Foundation.

Hands-on Hand Print for Environmental Sustainability

Author: Preeti R. Kanaujia



Article: SangSaeng No. 37- How to Foster Global Citizenship? by APCEIU UNESCO. SangSaeng is published three times a year by the Asia-Pacific Centre of Education for International Understanding (APCEIU) under the auspices of UNESCO.

The article discusses Handprint in the context of the Paryavaran Mitra programme which involves the active engagement of students through class activities and action projects. Class activities are steps towards carrying out an action project as they help to systematically build understanding and linkages. The classroom activities suggested as part of the Paryavaran Mitra programme are for students in the age group of 10–14 years. These activities help:

1. Clarifying abstract concepts through practical experience.
2. Encourage linkages across subjects related to local students and school knowledge
3. Connect textbook learning to learning outside the classroom
4. Encourage students to use multiple skills, ask questions, explore, discover, think and construct knowledge.

Project based learning is a good way to apply classroom learning. This extends the boundary of education from information to experience. Action projects focus on learning about the environment, addressing an environmental challenge or issue and improving the environment.

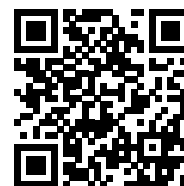
It includes a series of steps that start by identifying a problem, defining the objectives and designing the process to achieve the expected outcomes.

Kanaujia, P. (2013) Hands-on Hand Print for Environmental Sustainability. SangSaeng No. 37- How to Foster Global Citizenship? by APCEIU UNESCO. Issue: 37, Article: 28



Paryavaran Mitra (Friend of Environment) Programme in Assam, a North Eastern State of India

Authors: Simanta Kalita (CEE Northeast),
Sudhir Kumar Sinha (ArcelorMittal India),
Prabhjot Singh Sodhi, (CEE Delhi),
Pramod Kumar Sharma (CEE Ahmedabad),
Bijoy Sankar Goswami (CEE Northeast),
Partha Pratim Baruah (Gauhati University)



Article: Presented at the Asia Pacific Biodiversity Forum held in Thailand.

This communication explores about the implementation of the Paryavaran Mitra programme in Assam, a North Eastern state of India. The programme is reaching out to 800,000 students in approximately 8,000 schools in Assam. The major inputs to the programme include the partnerships with National Green Corps (NGC) Eco-club network (5,200 schools) and Saturday Club network of Sarba Siksha Abhiyan Mission (SSA) (more than 2000 schools) and partnership with RCE Guwahati. Grassroot level NGOs are helping in orienting the teachers, bringing in additional schools and monitoring of the schools.

Assam is specially focussing on biodiversity conservation, particularly conservation of tiger, river dolphin, and hoolock gibbon. The project, beyond schools, is now addressing the local NGOs, parents and local communities in some areas.

The remarkable achievements of the programme include – (1) orientation of more than 1,000 teachers on ESD issues; (2) cleaner school campuses; (3) plantation drives by schools, (4) changed behaviour of children towards birds, butterflies and other animals visiting schools, (5) Selection of students guided by the programme for state and national competitions and exhibitions etc.

The most significant achievement of the programme in Assam is that looking at the benchmark materials and quality of the orientation given to teachers, the State Education System has mainstreamed it; Directorates of Primary and Secondary Education have endorsed it by notification.

The important lessons learned from the programme include – (1) Government-Public-Private partnership is essential in a large scale education programme and it helps in creating ownership; (2) Use of local language provide better acceptance; (3) Degree of behaviour change in students depends on the quality of teacher orientation and materials provided; (4) Selection of local specific issues is important for ensuring community participation etc.

Kalita, S., Sinha, S., Sodhi, P., Sharma, P., Goswami, B. Baruah, P. (2012). Paryavaran Mitra (Friend of Environment) Programme in Assam, a North Eastern State of India. Presented at the Asia Pacific Biodiversity Forum held in Thailand.

NATIONAL PARTNERS

Ministry of Environment, Forests and Climate Change (MoEFCC)
 ArcelorMittal India
 Science Express
 Indian Society of Remote Sensing (ISRS)
 The Global Environment Facility, Small Grant Programme(SGP)
 Sarva Shiksha Abhiyaan
 Army Public School
 Jawahar Navodaya Vidyalaya
 Oil & Natural Gas Cylinder(ONGC)
 Petroleum Conservation and Research Agency (PCRA)
 National Biodiversity Authority
 Wipro Earthian

INTERNATIONAL PARTNERS

United Nations Educational, Scientific and Cultural Organization (UNESCO)
 United Nations Environment Programme (UNEP)
 United Nations Children's Fund (UNICEF)
 Earth Charter International
 GEF Small Grants Programme
 South Asian Youth Environment Network(SAYEN)
 Samsung Eco-Generation

Event Partners

Regional Institute of Education, Ajmer
 NCERT
 Earth Day Network
 Goa Vidyaprasarak Mandal

IMPLEMENTATION PARTNERS AT STATE LEVEL

State	Partners
Karnataka	Environment Management & Policy Research Institute (EMPRI), Bengaluru
Kerala	Kerala State Council for Science Technology & Environment (KSCSTE), Department of Environment, Government of Tamil Nadu, Chennai
Tamil Nadu	Department of Forests, Andaman and Nicobar Administration, Port Blair (UT)
Andaman & Nicobar Islands	Department of Environment and Forests, Lakshadweep Administration, Kavaratti
Lakshdweep	Environment Education Cell, State Training Centre, Puducherry Administration (UT)
Puducherry	Arunachal Pradesh State Pollution Control Board (APSPCB), Itanagar
Arunachal Pradesh	Assam Science, Technology and Environment Council (ASTECC), Guwahati
Assam	Manipur Pollution Control Board (MPCB), Imphal
Manipur	Forests & Environment Department, Government of Meghalaya, Shillong
Meghalaya	Mizoram Pollution Control Board (MPCB), Aizawl
Mizoram	Nagaland Pollution Control Board (NPCB), Dimapur
Nagaland	Department of Forests, Environment and Wildlife, Government of Sikkim, Gangtok
Sikkim	Tripura State Pollution Control Board (TSPCB), Agartala
Tripura	Directorate of Environment, UP and Uttar Pradesh Pollution Control Board, Lucknow
Uttar Pradesh	Directorate of Environment, UP and Uttar Pradesh Pollution Control Board, Patna
Bihar	Bihar State Pollution Control Board (BSPCB), Patna
Punjab	Punjab State Council for Science and Technology (PSCST), Chandigarh
Chandigarh	Environment Society of India
Chhattisgarh	Department of Environment, Chandigarh Administration, Chandigarh (UT)
Goa	Department of Environment, Chandigarh Administration, Chandigarh (UT)
Madhya Pradesh	Chhattisgarh Environment Conservation Board (CECB), Raipur
Maharashtra	Goa State Council of Science & Technology (GSCST), Goa
Gujarat	Environment Planning and Coordination Organization (EPCO), Bhopal
Rajasthan	Directorate of Social Forestry, Government of Maharashtra, Pune
D&N	Gujarat Ecological Education and Research Foundation (GEER Foundation), Rajasthan State Bharat Scout, & Guide, Jaipur
Daman & Diu	Pollution Control Committee, Dadra and Nagar Haveli Administration, Silvassa (UT)
Delhi NCR	Pollution Control Committee, Daman and Diu Administration, Daman (UT)
Haryana	Pollution Control Committee, Daman and Diu Administration, Silvassa (UT)
Jammu & Kashmir	Department of Environment, Government of NCT Delhi, Delhi
Himachal Pradesh	Pollution Control Committee, Daman and Diu Administration, Daman (UT)
Uttarakhand	Department of Environment, Government of NCT Delhi, Delhi
Jharkhand	Department of Environment, Government of NCT Delhi, Delhi
Orissa	Indian Environment Society (IES), Environment Society of India
West Bengal	Indian Environment Society (IES), Environment Society of India
	Haryana State Pollution Control Board (HSPCB), Panchkula
	J & K State Pollution Control Board (JKSPCB), Jammu and Srinagar (Kashmir)
	State Council for Science, Technology and Environment (SCSTE), Shimla
	WWF-India J&K
	State Council for Science, Technology and Environment (SCSTE), Shimla
	Environment Society of India
	Sabhi Ke Liye Shiksha Parishad, Government of Uttarakhand, Dehradun
	Uttarakhand State Pollution Control Board (JSPCB), Ranchi
	Uttarakhand Seva Nidhi Paryavaran Shiksha Sanshan, Almora
	Jharkhand State Pollution Control Board (JSPCB), Ranchi
	Centre for Environmental Studies (CES), Bhubaneswar
	West Bengal Pollution Control Board (WBSPCB), Kolkata
	Science Communicator's Forum

EDUCATION DEPARTMENT

State	Partners
Andhra Pradesh	Department of Education
West Bengal	Directorate of School Education, Govt of West Bengal
Chhattisgarh	Directorate of Public Instruction (DPI)

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State
Andhra Pradesh
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Kalpadroom, Green manas, Lotus Progressive Centre, Pacific Unit, Atliya
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Assam Science, Technology and Environment Council (ASTE), Guwahati
District Implementation and Monitoring Committee(DIMC), Imphal East

Manipur

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Bihar

Chhattisgarh

Madhya Pradesh

Lokshakti Samaj Seve Sanstha, Dharohar, Sangata Samaj Seve Sanstha
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Maa Namada Gram Vikas Samiti, Hosangabad.
MANSI Centre for Human Development Research and Initiative, Panna
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Maharashtra

Delhi NCR

Haryana

Jammu & Kashmir

Himachal Pradesh

Sarthak Prayas
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Centre for Environment Education & Training
Human Welfare Society
YUMDHA (Yuva Mahamandal Dharti Dhar)
PARA (People Awareness for Rural Action Society)
CART (Centre for Agro Rural Technologies)
Institute for Development Support

Uttarakhand

People for Animals Dehra Doon
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Uttar Pradesh

Children Forest Programme of JICA assisted-Participatory Forestry Management and
Poverty Alleviation Project
Bharat Uday Education Society

Jharkhand

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Gramin Sulabh Vikas Kendra, Ranchi

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SHRISTI
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West Bengal

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Others

State
Karnataka
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Goa
Maharashtra
Haryana
Jharkhand

Partners

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Goa Vidyaprasarak Mandal
Bariya kashakari Rayat Sewa Sanstha
Lokpanchayat
Bhandara Nature and Culture Study Centre
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