



Annual Report 2022

SAVE THE ENVIRONMENT KOLKATA | GURUGRAM

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Report compiled by

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Scientist, DRDO & life Member, STE

A young green plant with two leaves growing from a mossy base. The plant has a thin, green stem that curves slightly to the right. It has two bright green, oval-shaped leaves with visible veins. The base of the plant is surrounded by a thick layer of bright green moss. A small, reddish-brown, flat object, possibly a piece of wood or a seed, is partially buried in the moss near the base of the stem. The background is a soft, out-of-focus green, suggesting a natural, outdoor setting.

plant a tree and care for it

Letter from President STE

Preface

“उद्यमेन हि सिध्यन्ति कार्याणि न मनोराथैः! न हि सुप्तस्य सिंहस्य प्रविशन्ति मुखे मृगाः!”
Very truly said, 'Any work is accomplished by hard work, not just by thinking...'

In STE we follow this motto. Every annual report is the result of hard-work and efforts put in by STE team members. The whole year is full of significant learning processes. It gives me immense pleasure to present the annual report of Save the Environment-2022. STE has come a long way and like every year STE has been able to depart its duties towards the society in spreading awareness on environment, health, water quality and other related areas. After COVID pandemic, it's time for self-introspection on our existence in this world and contemplate on our moral responsibilities towards the nature.

This brief annual report outlines our sincere efforts to reach the society and spread the message of protecting natural resources and thereby serving nature to the best of one's abilities. The year commenced with the grand celebration of International Women's Day. STE initiated **Prerana Samman** to recognize the women with extraordinary potential who contributed enormously in the society by various means.

STE has always been very assiduous to work for the welfare of the society not only in spreading the awareness but also to community services. Save The Environment (STE) has been working towards enhancing development and improving environment in the most backward areas. The water and sanitation interventions in Bonkanali village is one such example that we have recently undertaken. The STE founders and members raised crowd funding of nearly 5 Lakhs INR, installed drinking water-cum-WASH facilities and are installing toilets in phases. In the absence of electricity in the area, the drinking water system-cum-WASH unit is powered by solar energy.

Year 2022 has been pivotal for STE to organise conferences. An 'International Conference on Green Energy & Sustainable Environmental Technology (GESET), organized by School of Chemical Technology, Kalinga Institute of Industrial Technology (Deemed to be University), Bhubaneswar & Save the Environment, Kolkata was held in September, 2022. EWASH-2022 and the 4th Annual meet of STE was also conducted successfully. Both the events were remarkably successful wherein the eminent guests and speakers both nationally and internationally participated in large numbers.

This year STE was fortunate to include many new annual and life members both nationally and internationally. I sincerely thank all the STE members and other volunteers who have contributed unconditionally in the various tasks conducted by STE during the year.



(Dr. Kshipra Misra)
President STE &
Former Additional Director, DIPAS (DRDO)

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1. Abbreviations

AII&PH: All India Institute of Hygiene & Public Health

CSIR: Council of Scientific & Industrial Research

DRDO: Defence Research and Development Organization

DST: Department of Science and Technology

ETHEE: Emerging Trends to Heal the Earth and Environment

EWASH: Environment, Water, Agriculture, Sustainability and Health

GCNC: Green Chemistry Network Center

GESET: Green Energy & Sustainable Environmental Technology

ICMR: Indian Council of Medical Research

IGNOU: Indira Gandhi National Open University

IIM: Indian Institute of Management

IWWA: Indian Water Works Association

NEERI: National Environmental Engineering Research Institute

NICPR: National Institute of Cancer Prevention and Research

NGO: Non-Governmental Organization

NSHM: Notabilis Sociatrix Humanus Maxime

(Latin terms meaning Noteworthy Collaboration for Best Development of Humankind)

RSC: Royal Society of Chemistry

SOITS: School of Inter-Disciplinary and Trans-Disciplinary Studies

SDG: Sustainable Development Goal

STE: Save The Environment

TERI: The Energy & Resources Institute

UN: United Nations

USDA: US Department of Agriculture (USDA)

USDOE: US Department of Energy (DOE)

WWF: World Wildlife Fund



2. Introduction

Human being should never forget the lesson learnt from COVID pandemic. Covid-19 reminded human beings about the destruction they have caused to all ecosystems and various species dwelling in them. Although the cause behind the pandemic is not yet ascertained but it has come as a deterrent to the entire human race to constrain all those activities that cause harm to the environment and to other species of the world including microscopic.

Environmental science which finds place as modern disciplinary science, finds its origin through Vedic and ancient Sanskrit literature. The Rig veda venerates deities like Mitra, Varuna, Indra, Maruts and Aditya who are responsible for maintaining requisite balance in functioning of nature like water, earth, air, forests etc. Any kind of harm to the nature's vitals was considered as sin and for any inadvertent action the seers seek forgiveness as:

“यन्त्रांस्वनामिपृथिवी, तत् पुनः शीघ्रं गदेत हे शुद्धि, मातवप्राणान् हृदयं वा क्षतिं कुर्मः”।
"Whatever I dig from thee, O Earth, may that have quick recovery again.
O purifier, may we not injure thy vitals or thy heart".

The seers of Rig Veda speak on behalf of earth for its principle of replenishment "You give me and I give you". They look at every entity of Nature with the eyes of a friend and sympathiser:

May all beings look at me with the eye of a friend.
Mitrasya aham chakshusha sarva anibhuuta anisameekshe.
May I look at all beings with the eye of a friend.
Mitrasya chakshusha sameekshaamahe.
May we look (at each other) with the eye of a friend.

It shows that even more than 3000 years ago people used to acknowledge the bond between nature and living. Living beings cannot imagine their lives outside environment. Therefore, environment protection becomes our sole duty.

For the conservation of environment, we require people to come together, communicate, work in partnership and disperse the seeds of their work to obtain greatest outcome. In a vast country like India, government machinery is not enough to fulfill this enormous goal. Now a days Non-Government Organizations (NGOs), play a crucial role to reach to the masses or common people for spreading awareness regarding environment protection. NGOs create awareness among people on current environmental issues, natural resources and their protection etc. They do so by conducting workshops, seminars and conferences, distributing newsletters and brochures and showcasing their work on the websites and at different frontiers of the society.

3. About STE

SAVE THE ENVIRONMENT (STE), an NGO, was founded and registered on 29 November 1990. It was started with following Vision and Mission:

3.1. Vision

To protect present and future generations from various Environmental hazards.

3.2. Mission

To raise awareness and motivation among rural communities

&

To provide cost effective, energy efficient & environment friendly technologies

4. Brief History of STE

In 1992, with the collaboration of World Wildlife Fund (WWF), India, the organization started working to combat arsenic poisoning problem of water in the arsenic prone areas of West Bengal. Since then, STE has been involved in various projects related to eliminate groundwater arsenic contamination, mostly from rural areas of India. Some of the main activities of the organization are as follows:

1994: STE in collaboration with AIIH&PH, Government of India undertook a project on arsenic removal from water.

1997: On 23rd January, 1997, STE installed first arsenic removal plant in Kolkata, West Bengal.

1998: State Bank of India sanctioned a fund to install the arsenic removal plant in rural Bengal in 1998.

2000: In the year 2000, in collaboration with AIIH&PH and India Canada Environment Facility started a program on Community based project to mitigate arsenic pollution in West Bengal.

2001: In June 2001, organization had an opportunity to start a special clinic, which was first of its kind to provide free treatment to arsenic patients.

2003: STE was also first to deal with the conservation of rainwater and started working on Water Harvesting project in 2003 using ponds in rural areas.

A vocational training center was inaugurated for the arsenic patients in 2003.

STE is working very actively with DRDO, Ministry of Defence, Govt. of India to promote and implement a low-cost arsenic removal technology developed by DRDO.

STE has so far completed three projects from Dept. of Science & Technology, Govt of India to propagate and implement Arsenic/Iron removal technology in the affected areas.

Developed a model for sustainability of arsenic mitigation programme in the rural setup of India with the help of IIM, Ahmedabad.

Projects have been undertaken to mitigate arsenic/iron problem in 24 Parganas (N) & Nadia districts in West Bengal, Ballia district in Uttar Pradesh, Bhagalpur District in Bihar and Agartala in Tripura.

Since 1997 till date, Arsenic free drinking water has been provided to more than 1,00,000 people in India.

Already installed about 60 community type Arsenic Removal Plants and have distributed more than 5,000 domestic filters so far. STE is also conducting health camps in rural areas of West Bengal with the help of volunteers especially, doctors and healthcare personnel.

5. Activities of STE

For more than two decades STE has worked tremendously to reach to the local communities for creating environment awareness. STE has left no stone unturned in making people from all fronts of the society to amalgamate for this common cause.

Day by day environment is deteriorating. The qualities of our natural resources like land, water and air are depleting. Environmental pollution disturbs the balance of our ecosystems, affects normal lifestyles, cause stress and other related illnesses besides causing global warming. Government and other agencies are making so many policies on environment safety. But these policies come out to be successful to an extent only. This happens because a big chunk of our population remains ignorant of both the problem and its cause. Sometimes ludicrous situations arise when we talk of safety of environment but unknowingly contribute towards the opposite cause. With our busy schedules we tend to forget our responsibilities towards nature. Another verse of Srimad Bhagwat Geeta says:

प्रकृतेःक्रियमाणानिगुणैःकर्माणिसर्वशः।
अहङ्कारविमूढात्माकर्ताऽहमितिमन्यते॥3-27॥

Every work is governed by the grace of the nature, but only the arrogant people deny it.

'This sloka signify the nature as the key controller of every work. On the other way it can be said that doing harm to the nature will affect its regular activities that may reflect on the human livings. The verse also puts warning to the arrogant people, who does not believe in the power of the nature.'

STE truly tries to follow this motto and works towards fulfilling it. STE organizes workshops, conferences and seminars etc. where people from different fields of interest like professors, scientists, doctors, teachers, politicians, entrepreneurs, research-scholars and school-students etc. participate and take notice of this crucial issue of environment safety.

5.1. STE Academic perseverance

5.1.1 Awards

STE not only encourages people for the cause but also motivate its' contributors by giving them awards under different categories. Annual Awards of STE are the tangible symbol to signify eminence of contributions made by a person or institution. This boosts the enthusiasm of the contributors that have contributed in different field of science and social service with their excellence, expertise and approach towards achieving certain goals for the society. Recognition of such extraordinary activities is eventually very important to boost their confidence and to honour them for what they have done for the science and society. STE confers following categories of awards and honours to such eminent personalities.

STE Dr. APJ Abdul Kalam Award

The award is in the memory of our former president of India Late Dr. APJ Abdul Kalam. This award is conferred every year to the senior scientist of DRDO/ ISRO (working or retired) who has significantly contributed towards science and technology in India.

(Eligibility: *Any Indian Citizen above the age of 55 years. Nominations will be from STE.*)

STE Dr. Praloy O. Basu Life Time Achievement Award

The award is constituted in the memory of late Dr. Praloy O. Basu, Founder Secretary of STE. This award is conferred every year to any citizen of India, who has made a difference to the society by his/her contributions in terms of education/ policies/ S & T/ Social Service and others.

(Eligibility: *Age above 45 years. Nomination from STE.*)

STE International Awards

2 sub categories:

STE International Achiever Award

STE International Young Achiever Award

This award is to recognize NRIs who have brought fame to India by contributing towards Science & Technology / Environment / Education/ Society.

(Eligibility: *Anyone born in India but working abroad can apply. Age no bar*).

STE Green Excellence Award

This award is constituted to honour those professionals who have excelled in safeguarding and protecting the environment.

(Eligibility: *Any one above the age of 40 years can apply*).

STE Fellowship Awards

STE Fellowship award is conferred to the Indian Senior Scientists /Academicians for their outstanding achievements in various fields of Science & Technology and Education.

(Eligibility: *Anyone above the Age of 50 can apply*)

STE Meritorious Award for Excellence in Research and Academics

The award is conferred to the persons who have an exceptional/excellent contribution in the field of academics and research

STE Water Awards

The awards are conferred to the Indian nationals who have made the difference in the area of water by any means.

(Eligibility: *Any one can apply in this category and age is no bar*)

STE Young Researcher Awards
STE Young Researcher Faculty category
STE Young Researcher Awards

The awards are conferred to the young Indian researchers to encourage and boost their enthusiasm.

(Eligibility: *Anyone in the Age between 25 to 40 years can apply.*)

STE Best Ideas / Innovations / Technology for Environment Awards

The awards are for the Indian Nationals to generate / develop the innovation towards serving the environment.

(Eligibility: *Anyone can apply. Age no bar*)

STE Best School Principal Award

This award is constituted to recognize the Principal of Schools for his/her contributions in the field of science and environment.

(Eligibility: *Any one above the age of 40 years can apply*).

STE Best Teacher Award

This award is given to the teachers of Indian nationality for promoting science and technology among the school students.

(Eligibility: *Teachers – teaching Science for Classes 9-12 can apply*).

STE Women Awards

This award is constituted to recognize the Indian Women Scientists/ Academicians for their contributions in the field of science and environment.

(Eligibility: *Any woman above the age of 40 years can apply*).

STE Humanitarian Award for NGO

This award is given to an NGO who has significantly contributed for the cause of environment and general social well being of the society.

5.1.2 STE Journal

STE has its own journal namely International Journal of Environment and Health Sciences (IJEHS). The journal proposes to provide a reliable platform to discuss relevant technologies and strategies. IJEHS is quintessential to academicians, industry professionals and researchers who are actively engaged in the areas of environmental issues and related health effects. The journal has got ISSN 2582-5283. IJEHS is referenced in Crossref, the official Digital Object Identifier Agency (doi 10.47062). IJEHS is now also indexed in the International Scientific Indexing (ISI).

The journal invites original research articles, short communications and critical reviews directed towards an academic, clinical and industrial audience. The first section of the journal focuses on burning environmental issues like pollutants and their fate, waste management, resource conservation, remediation technologies, etc. The second section includes all topics relevant to physiological impact of environmental risk factors and application of alternative medicinal approaches as remedial measures.

All submissions are meticulously scrutinized by pioneers in the field to ensure publication of only articles of high quality and relevance. Authors are always requested to take special precautions to avert plagiarism and redundancy.

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5.1.3 STE Quarterly Newsletters

STE publishes quarterly Newsletter in which details of the activities done during a quarter is provided. Not only this STE invites scientific and general articles mainly pertaining to environment for publication in the newsletters. The articles enrich the knowledge of the readers in different aspects. By viewing the increasing popularity of STE, we are planning to publish the quarterly newsletters in Hindi and Bengali from Jan 2023 onwards.

https://www.stenvironment.org/images/newsletter/PRAKRITI%20SANRAKSHAN_Oct_Nov_Dec_2022_F.pdf



6. Events/Programmes-2022

STE is not limited to environmental pollution rather it covers sustainable development and management of natural resources and flora and fauna. Day by day the need of environment protection at various levels is increasing thereby enhancing the responsibilities of the NGOs. Even after more than 70 years of independence, Indian population still lacks in awareness regarding environment safety. This has happened because still two-third of our population still lives in poverty. They are simply unaware regarding environment protection rather struggles to make ends meet. In this scenario the responsibility of NGOs like STE is further enhanced. STE is totally dedicated towards the cause of environmental safety and health. During the year 2021, STE has organized various events and programmes on environmental development issues that has come out to be beneficial to the different levels of the society. The details of all the events conducted during the year are given below:

6.1. STE's Prerana Samman 2022- International Women's Day

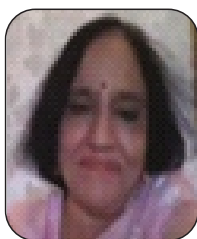
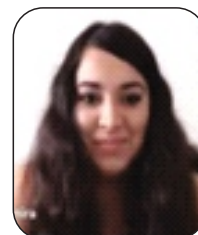
Date & Venue: Webinar on 08th March

Organisers: Save the Environment & Hindu College, University of Delhi



Dr. Mausumi Bharadwaj, Scientist G & Head, Molecular Biology Group, ICMR-NICPR, NOIDA;

Dr. Gauri G. Pandit, adjunct professor IIT Bombay and Former Head environment monitoring and assessment section, BARC, Trombay for her contribution to the assessment of long-term impact of radioactive and non-radioactive pollutants on environmental.



Ms. Madhu Sharma, Education Consultant and Founder-Gyan Global Consultancy.

6.2 International Conference on Green Energy & Sustainable Environmental Technology (GESET-2022) OZONE DAY CELEBRATION

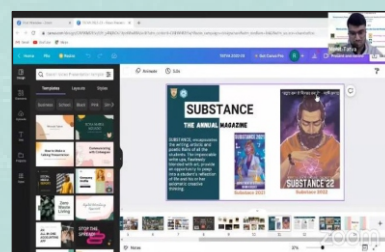
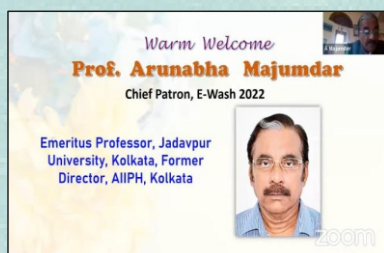
An 'International Conference on Green Energy & Sustainable Environmental Technology (GESET)', organized by School of Chemical Technology, Kalinga Institute of Industrial Technology (Deemed to be University), Bhubaneswar & Save the Environment, Kolkata was held on **15 -16 September, 2022**. The conference was sponsored by Science and Engineering Research Board (SERB), New Delhi and National Bank for Agriculture and Rural Development (NABARD), Mumbai. At this conference academics, scientists, researchers, industry experts and policy makers gathered to discuss the latest developments in sustainable technologies and materials for harvesting "Green Energy" while also protecting the Ozone layer's delicate ecosystem. This conference also provided a premier interdisciplinary platform for researchers, practitioners, and educators to present and discuss the most recent developments in the fields of sustainable technology development in order to protect the Earth by mitigating various environmental problems, such as air pollution, water pollution, or other types of pollution. Speakers from academia and industry shared their expertise in a variety of fields during the conference. Honourable Prof. Satinder K. Brar, Professor and James and Joanne Love Chair in Environmental Engineering, York University, Canada graced this event as the Chief Guest. Prof. Brar greatly appreciated the efforts directed by the organizing committee members especially Prof. S. K. Tripathy (Convener) and Dr. Kshipra Misra (President, STE) for organizing a conference of such a stature. Prof. Arunabha Majumdar, Chairman, Indian Water Works Association (IWWA) and Ex Director, Professor & Head, Department of Sanitary Engineering, AIHH&PH, Kolkata and Guest Professor, School of Water Resources Engg., Jadavpur University, also graced the occasion as patron. Prof. Majumdar greatly appreciated the work and efforts done by the organizing committee and lauded the successful completion of the conference.





6.3 EWASH-2022

A regular annual feature in the academic arena is the very appropriately titled International Conference on EWASH- Environment, Water, Agriculture, Sustainability and Health that was organized in the month of January 2023 by Chemistry Department of Hindu College in collaboration with Save The Environment, Royal Society of Chemistry, North India Section and CSIR-National Environmental Engineering Research Institute. The conference this year was themed around strategizing a greener future through a productive brainstorming among environmental scientists, academicians and researchers of international repute on carefully chosen sub themes like formulation of environmental policies and implementation, geodiversity assessment and impact, environmental economics, green chemistry for sustainable future and more. The colloquium proved to be a collaborative platform for building upon research endeavors and interdisciplinary deliberations to address various challenges pertaining to climatic and environmental concerns. Few of the much-appreciated international speaker sessions were on Membrane based hybrid technology for recycling of metal ions by Dr. Ramesh Kumar, Department of Earth Resources and Environmental Engineering, Hanyang University, Republic of Korea and space radiation induced ageing and cancer risk and potential mitigation strategies by Prof. Shubhankar Suman SOM-Oncology Department, Georgetown University, Washington D.C. The event that spanned over two days in the online mode was interspersed by plenary and invited talks, poster and oral presentations, STE award ceremonies and exciting student activities. It was a huge success as it provided exposure to the speakers as well as the listeners about various aspects of environment and sustainability and was well attended by more than 350 participants from India and abroad.



AWARDS Conferred during EWASH-2022

Award Title	Recipient Name	Designation & Affiliation
STE Dr. APJ Abdul	Dr. A.B. Samui	Visiting faculty, Dept. of Genetic Engg, Polymer & Surface Engg, ICT, Mumbai and Former Project Director, Additional Director & Scientist 'G', NMRL (DRDO, Ambarnath)
STE Dr. Praloy O Basu Life Time Achievement Award	1) Prof. Sasmita Samanta 2) Ms. Sumedha Kataria	Vice-Chancellor of KIIT Deemed to be University, Bhubaneswar Retired IAS officer of Haryana cadre and motivational speaker
STE International	1) Prof. Sanjay Joshi 2) Dr. Ramesh Kumar 3) Dr. Krishna Sharma 4) Dr. Saikat Kumar Basu 5) Dr. Saumya Dabral	Professor, Dept. of Industrial and Manufacturing Engineering, Penn State University, USA Postdoctoral Research Fellow, Dept. of Earth Resources & Environmental Engg., Hanyang University, Seoul, Republic of Korea Research Fellow, School of Chemistry, University of Leeds, UK. PFS, Executive Research Director, University of Lethbridge, Alberta, Canada Product Development Scientist, BASF, Netherlands
STE Fellowship Award	1) Dr. Narendra Singh 2) Prof. Rajinder S. Chauhan 3) Prof. Srinivas Patnaik	Additional Director & Scientist 'F', DIHAR, DRDO, Govt. of India Dean, Centre for Life Sciences, Mahindra University, Hyderabad Professor, School of Biotechnology, KIIT deemed to be University Bhubaneswar
STE Green Excellence Award	1) Prof. Shachi Shah 2) Dr. Maulin P. Shah 3) Dr. Vivek Verma 4) Prof. Manoj B. Gawande 5) Mr. Nathaniel B. Dkhar	Director, SOITS & Prof. in Environmental Studies, IGNOU, New Delhi Chief Scientist & Head, Enviro Technology Ltd., Ankleshwar, Gujarat Associate Professor, Dept. of Materials Science and Engineering, IIT- Kanpur Associate Professor, Dept. of Industrial & Engg. Chemistry, ICT- Mumbai, Jalna Consultant (Water Resource Management), Mu Gamma Consultants, New Delhi
STE Meritorious Award For Excellence in Academics and Research	1) Prof. Sayeed Ahmad	Head, Dept. of Food Technology Professor of Pharmacognosy and Phytochemistry, BNPL, Jamia Hamdard Univ., Delhi
STE Water Award	1) Prof. Papita Das	Professor, Department of Chemical Engineering, Jadavpur University, Kolkata

AWARDS Conferred during EWASH-2022

	2) Dr. MVSS Giridhar	Professor & Head, Centre for Water Resources, IST, JNTU, Hyderabad
	3) Mr. Ramveer Tanwar 'Pond Man'	Environmentalism & TedX speaker, G.NOIDA
STE Women Excellence Award	1) Dr. Neeraj Tandon	Principal Investigator, Medicinal Plants Division, ICMR
	2) Mrs. Aparna Pujari	Eco-Entrepreneur, Eila Eco Products, Dharwad
	3) Dr. (Mrs.) M. G. Sujana	Chief Scientist, Dept. of Environment & Sustainability, CSIR-IMMT, Bhubaneswar
	4) Dr. Noor Afshan Khan	Chief Scientist, Dept. of Environment & Sustainability, CSIR-IMMT, Bhubaneswar
STE Best Ideas/Innovations/ Technology for Environment Award	1) Dr. Tapan Kumar Rout	Principal Scientist/ Head, Technology Leadership Areas, Tata Steel Ltd., Jamshedpur, India
	2) Prof. Suraj K. Tripathy	Associate Dean and Associate Professor, School of Chemical Technology, KIIT Deemed to be University, Bhubaneswar
STE Young Researcher (Faculty) Award	1) Dr. Rabea Parveen	Assistant Professor, Dept. of Pharmaceutics, SPER, Jamia Hamdard University, Delhi
	2) Dr. Shirsendu Banerjee	Assistant Professor, School of Chemical Technology, KIIT School of Biotechnology, Bhubaneswar
	3) Dr. Gaurav Gautam	Assistant Professor, Dept. of Pharmacy, IIMT University, Meerut
STE Young Researcher Award	1) Mr. Sayantan Sinha	Research Scholar, Centre for Environment, IIT Guwahati
STE Best School Principal Award	Sister Rose Fatima AC	Principal, Carmel Convent High School MAMC, Durgapur
STE Best Teacher Award	1) Ms. Sumita Chakraborti	Asst. Teacher (Bengali), Hirendra Leela Patranavis School, Kolkata
	2) Dr. Vaishali Mishra	HOD, Chemistry, ITL Public School, Dwarka, New Delhi
STE Humanitarian Award for NGOs	Letters to Strangers+India	C/o Ms. Aarushi Kataria, Chief Functionary, Kurla W, Mumbai

6.4 For the Social Cause: Safe Water & Sanitation Drive, Purulia District, West Bengal

As part of a social pursuit, STE planned to undertake the 'Purulia Project for 3 Toilets and 1 Drinking-cum-Wash water unit' that will benefit the needy households at Sabar Tola, Bonkanali village, Purulia, West Bengal-an economically weaker ethnic community of the state. The Bonkanali village, also known as Sabar Tola (named after the Sabar community) are an impoverished community, which makes up seven percent of the total population of Purulia District. Since long, the families residing in this area have been facing severe difficulties due to the lack of proper water supply and sanitation facilities. This is ironic and in contrast to the wake of urbanization, especially in the post-pandemic world, where green environment, clean water and proper hygiene are the absolute requirements for a healthy life. People in Purulia lack basic amenities like electricity, water access, and sanitary facilities. Electricity shortages have restricted the provision of basic facilities in the region, including water supply. The lack of adequate sanitation contributes to the rapid spread of diseases, resulting in a substantial economic and personal burden further spiralling the vicious circle of poverty and underdevelopment. Reaching out to the most vulnerable and untouched Sabar Tola, where about 10 families belonging to the Sabar community live near the Swapnaloke school. The STE founders and members raised crowd funding of nearly 5 Lakhs INR, installed drinking water-cum-WASH facilities and are installing toilets in phases. In the absence of electricity in the area, the drinking water system-cum-WASH unit is powered by solar energy. Our interventions include the installation of three toilets, two for households in the region and one specifically for students at the school. There have been intense community engagements, behaviour change campaigns, inter-personal communication, education and generation of ownership at the community level. About twenty students at the school and approximately forty people living in the vicinity in Bonkanali village have greatly benefited from this project. These WASH interventions in this remote and geographically challenged region is expected to contribute to the control of infectious diseases, improved child and adult health, reduction in morbidity, mortality and contribute towards the Sustainable Development Goal (SDG) 6. The interventions are not only contributing to water and sanitation access in the region but has also stimulated the uptake of clean energy technologies for water supply in difficult areas with limited access to electricity. This work is still under process. This is a replicable, scalable, sustainable model of WASH access with clean energy in remote rural areas.



7. Members of STE

This year there was a good increase in the number of members of STE. The Life time members increased to 63 this year from 29 last year.

7.1 Life Members (LM)

Sl. No	Name	Designation	Email
1	Prof. Sunil Kumar De	Professor & Head, Dept. of Geography	desunil@gmail.com
2	Dr. (Mrs.) Kshipra Mishra	President, Former Director DRDO	kmisra99@gmail.com
3	Mrs. Chhanda Basu	General Secretary & Social Worker	save1990env@yahoo.co.in
4	Mr. Sanjit Mitra	Treasurer, STE	mitra_sanjit@yahoo.com
5	Mrs. Shubhra Misra	Vice President, Self Employed	s.misra1952@gmail.com
6	Mr. Dipankar Chakraborty	JT. Secretary, Businessman	dipankarchakraborty.7119@gmail.com
7	Dr. Sucheta Chakraborti	Scientist, DRDO	suchetachake61@gmail.com
8	Ms. Rajyasree Ghosh	Oncologist	rgghosh2011@sbcglobal.net
9	Mrs. RupasreeShome	House Wife	rgghosh2011@sbcglobal.net
10	Dr. Jayshree Bhattacharji	Former Director Professor & HOD	—
11	Mr. Om Prakash Vishwakarma	Former General Manager- SAIL	vishwakarmaop12@gmail.com
12	Mrs. Ruma Paramanik	Social Worker	—
13	Mr. Debashis Gupta	Social Worker	deb.dgp@gmail.com
14	Dr. Vaishali Mishra	Teacher	drvaishalimishra2019@gmail.com
15	Mrs. Suparna Kundu	CI	Mouny477@gmail.com
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