

Save the environment (STE) was founded on 26th January 1989 and got registered on 19th November 1990. In 1992 with the collaboration of WWF (India), the organization started working to combat arsenic poisoning problem of water in the arsenic prone areas of West Bengal.

For last three decades, STE has provided humanitarian and development assistance to the people of India specially the states of Bihar, Tripura, Utter Pradesh and West Bengal. We provide assistance in the areas of health, clean drinking water, the environment awareness and emergency aid, among others. Some of the main activities of the organization are:

- In 1994 STE with the collaboration of All India Institute of Hygiene & Public Health, Government of India undertook project on arsenic removal to provide arsenic free water. 1st arsenic removal plant installed by STE organization in1997. The plant was inaugurated by the Minister of PHED (West Bengal) on 23rd January 1997.
- A vocational training centre was inaugurated for the arsenic patients in 2003 and setting up of a special hospital for arsenic patients is under process.
- Developed a model for sustainability of arsenic mitigation programme in the rural setup of India.
- Already installed about 60-community type Arsenic Removal Plants and have distributed more than 5000 domestic filters so far.
- Till date, Arsenic free drinking water has been provided to more than a lakh people in India.

This report celebrates some of STE's success stories of this year. How, we have helped the society in spreading awareness about the importance of Swachh Bharat Abhiyan, clean drinking water by organising workshop and also by celebrating Swacchhta Diwas. Furthermore, we hope this report will convey the colour and vibrancy of the society we serve, as well as the people of India: the mothers, the children, the cherished friends. Thank you for your continued support for STE and for sharing our commitment to the people of India.

(Dr. Kshipra Misra)



### **Our Vision**

To Protect Present and Future Generations from various Environmental Hazards.

# **Our Mission**

Awareness and
Motivation among rural
communities & Provide
cost effective, energy
efficient & environment
friendly technologies

#### **Our Activities**

Interactive Sessions,
Workshops/ Seminars,
Awareness Program,
Field operations through
Projects, Science Fair,
Poster & Quiz
Competition

### A Report about the National Workshop Impact on global Warming: Ozone Layer (IGWOl 2018)

16 September, 20188

The National Workshop on Impact on Global Warming Ozone Layer - 2018 was organised on 16th September 2018 in School of Natural Sciences, Shiv Nadar University, Dadri, Uttar Pradesh. It was jointly organised by National Environmental Science Acdaemy, New Delhi, Shiv Nadar University, Delhi and Save the Environment, Kolkata.

The Patron of the workshop **Prof. (Dr.) Rupamanjari Ghosh** was the Chief Guest of the day. She inaugurated the workshop and presented during her lecture about the development and contribution by Shiv Nadar University, Dadri towards higher education and employment.

**Dr. Sushil Kumar Singh**, Addl. Director, Solid State Physics Laboratory, DRDO, Delhi and Organising Secretary introduced the theme of the Workshop and welcomed all sponsors, speakers and delegates of this workshop.

**Prof. C.R. Babu**, Professor Emeritus, Centre for Environmental Management of Degraded Ecosystems (CEMDE), School of Environmental Studies, University of Delhi, Delhi was also present in the inaugural function as a keynote speaker of the Ozone Day. He discussed various aspects of Ozone depletion & its effect on human health.

**Prof. Javed Ahmad**, President, National Environmental Science Academy, Delhi introduced the Academy & its activities.

**Dr. Laxman Prasad**, Former Advisor, Department of Science and Technology, Govt. of India, Delhi acted as Chairperson of the first technical session of the workshop.

**Dr. Sanjay Bajpai** from Technology Missions Division(Energy, Water & all Other) Department of Science and Technology, Govt. of India, New Delhi was invited as guest of honour in the first technical session. He delivered his talk on Energy Innovation for Sustainable Environment.

**Prof. Manju Mohan**, Head, IIT, Delhi was invited speaker. She spoke on status, issues and solutions regarding Ozone.

**Prof. Umesh Chand Kulshreshtha** from School of Environmental Sciences, Jawaharlal Nehru University, New Delhi delivered his lecture on Integrated atmospheric Chemistry approach for controlling air pollution in Delhi. He also discussed on dust and its role in air pollution. Causes of Air pollution were also discussed in detail during his lecture. He also talked on dust role and its chemistry.

**Dr. P.G. Dastidar**, Scientist F from Ministry of Earth Sciences, Govt. of India, New Delhi also spared his valuable time and attended the workshop throughout the whole day.

Post Lunch Session was chaired by Dr. D.S. Rawal, DRDO, Delhi

**Prof. K.S. Rao**, from Department of Botany, University of Delhi delivered his lecture on effects of Ozone layer formation and depletion on human health and food security. He classified Ozone as good as well as bad entities. He described the Chapman Cycle regarding ozone production. Montreal Protocol was also discussed by him during his talk. He also emphasized that Ozone is harmful for the development of plants. Ozone injury has been described by him in various plants. It is a bioindicator. Effect on crop yield was also discussed by him during the talk.

**Prof. Jaswant Singh**, Head, Department of Environmental Sciences, Dr. Rammanohar Lohia Avadh University, Hawai Patti, Allahabad Road, Faizabad, (U.P.) also delivered talk on Impact of UVB radiations and survival of plants at poles. He also showed that three type of plants are found in North Pole region.

Algae: *Spyrogyra sps.*Moss: *Bryum argentium*Lichen: *Xanthuria elegans* 

No flowering plants are found in Arctic zone. Polar bears form the major part of the fauna of the region as per data presented by him. Antarctica in more bigger and harsher than North Pole as per his presentation.

The staff of the Shiv Nadar University also participated with more than 100 students from School of Natural Sciences, Shiv Nadar University. 12 papers were also presented through Poster Session by the participants outside the venue.

**Prof. C.V. Tomy**, Director, School of Natural Sciences, Shiv Nadar University gave concluding remarks and appreciated the Secretarial work done by Mr. Gian Kashyap, Mr. Rakesh Kumar Roy from National Environmental Science Academy and Ms. Mercy Mallick from Shiv Nadar University.

**Prof. Jyoti Sharma** from Shiv Nadar University extended vote of thanks in the Valedictory Session of the workshop.

Awards and Certificates were also distributed among the winner participants.

**Dr. Kalpana Bhargava** was also thanked by organisers for her help and support in the present event.

The members of the Organizing Committee and **Dr. Kshipra Misra**, Vice President, NESA and President, Save the Environment, Kolkata were also acknowledged.

The Sponsors Himalaya, Save The Environment, Kolkata, BioChain, Ekta Marketing Corporation and Oxform Instruments were thanked for the valuable contributions to Workshop.

The workshop was declared closed with zeal and zest at 6:00 p.m.

### Impact on global Warming: Ozone Layer (IGWOl 2018)

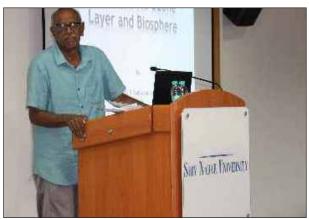
# **Activities**

















#### RASHTRIYA SWACHHTA DIVAS

As part of swatchhta mission "Save the Environment" Celebrated 2nd October as Rashtriya Swachhta Divas with special emphasis on "Reduce Use of Plastic". The event was organized in "Purva Madhyamic Vidyalaya" Shliyakote, Dhari, Dist. Nainital, Uttarakhand.

#### The Objective of the event was to:

- 1. To Create awareness among students about the health and environment hazards of plastic use.
- 2. To motivate the students and teachers to save our environment by not using plastic in day to day life.
- 3. To spread awareness about the harmful effect of burning plastic and its non-biodegradable nature.

Training camp was organised for the students, teachers and local population to spread awareness about the harmful effects of plastic.

pamphlets were distributed amongst the shopkeepers and general public with a request for minimal use of plastic in day to day life.









# Report of National Workshop on ARSENIC CONTAMINATION AND SUSTAINABLE TECHNOLOGICAL SOLUTIONS IN INDIA

#### Held at 26th-27th February 2019 NSHM Knowledge Campus, Durgapur, India

#### Sponsored By DRDO, Ministry of Defence, New Delhi

The national workshop entitled "Arsenic Contamination and Sustainable Technological Solutions in India" was organized jointly by NSHM Faculty of Business and Management Studies, Durgapur (West Bengal) and Save The Environment (STE), a NGO based in Kolkata totally dedicated towards the cause of environmental safety and health. The main objective of the workshop was to bring together world class researchers, scientists, environmentalists, experts and policy makers at one common platform for identifying the environmental challenges caused by arsenic poisoning of groundwater and proposing cost-effective solutions to deal with these problem. The workshop set the stage for understanding the necessity of providing arsenic free drinking water to the rural people of Bardhaman District, West Bengal and for devising plausible technological solutions for the same.

The event was inaugurated with the customary lighting of lamp in the benign presence of the **Chief Guest, Shri Sapam Lenin Singh**, Group Captain, Indian Air Force. Shri Singh graced the event with his thoughtful words encouraging the culmination of the workshop. **Dr. Alok Satsangi**, Dean Principal, NSHM School of Business and Management Studies then humbly felicitated the Chief Guest.

The welcome note was addressed by **Dr. Arun Upadhyay**, Member, and Organizing Committee. **Dr Kshipra Misra**, President, Save the Environment Foundation and Former Additional Director, DIPAS, DRDO, Delhi was kind enough to introduce STE to all present in the gathering. In her treatise, Dr. Misra detailed the various programs and ventures undertaken by STE to combat arsenic contamination in India, specifically in the rural areas of West Bengal. Dr. Kshipra Misra was then honorably felicitated by Dr. Alok Satsangi.

The welcome session concluded with the delivery of vote of thanks by **Professor Mithun Kumar Guha**, Organizing Secretary of the workshop and Assistant Professor, NSHM Faculty of Business and Management Studies, followed by recitation of the national anthem.

A high tea break was organized in the campus premises where all the participants got an opportunity for casual discussions centered around the theme of the workshop.

The first session was chaired by **Dr. Kalpana Bhargava**, Scientist `F' DRDO and co-chaired by **Professor Prabal Chakraborty**, Assistant Prof. NSHM. **Professor Ayan Bandyopadhyay**, Member, Organizing Committee conceded as rapporteur of this session. The first talk was delivered by invited speaker, **Prof. Amit Dutta**, Professor, Jadavpur University, Kolkata whose lecture focused on the project `Arsenic Remediation from contaminated ground water: Field trials in **Dhapdhapi, South 24 parganas**" and also discussed about the success of that project by involving multiple stakeholders and how in future this type of the project could be replicated in different parts of the country. The second invited talk was a thought provoking oration by **Prof. Anupam Debsarkar**, Professor, Jadavpur University, Kolkata who provided insights on the waste management while using the aforesaid technology. The first session drew to a close with the felicitation of Dr. Kalpana Bhargava by Dr. Alok Satsangi.

Post lunch, the second session of Day 1 chaired by **Dr. Kshipra Misra** and co-chaired by **Dr. Gargi Banerjee**, Member, Organizing Committee. **Professor Amrita Bhattacharya** was rapporteur for the session.

A few short oral presentations made by various student and other participants.

The third session was the poster presentations, began with Dr Arun Upadhyay as the chairperson, Professor Anita Nandi Barman as the co-chairperson and Professor Dipanita Debas the rapporteur. This session beheld a couple of poster presentations themed around water sustainability, water pollution and remediation, impact of industrial waste on water quality for agriculture and human consumption and development of simple treatment technologies.

**Day 2** of the workshop was ennobled by some highly astute invited talks. The first session was gracefully opened by **Dr. Razi Anwar**, Chairperson, **Prof. Sudip Basu**, Co-Chairperson and **Professor Amit Kumar Banerjee**, Rapporteur. The first talk was delivered by **Professor Sanjeev Chaudhary**, Professor, IIT Powai. The second talk, delivered by Professor Arunava Majumdar, Professor Emeritus, Jadavpur University. Both the lectures were immensely insightful and themed on "Review of arsenic removal technologies from groundwater". They provided a lot many inputs for arsenic remediation in water.

**Session 2** was chaired by **Dr. Somroop Siddhanta** and co-chaired by **Professor Mithun Kumar Guha**. Rapporteur for the session was **Professor Monalisa Dutta**. In this session, **Dr. Mandira Ghosh**, Assistant Professor, Jadavpur University an invited speaker bestowed the audience about "arsenic in rice grain: risks and challenges".

Both the sessions of Day 2 were followed by certain oral presentations by several other participants.

The final session of the workshop began with **Professor Prabal Chakraborty** providing glimpses of the workshop, under "Workshop at a Glance". This was followed by release of souvenir and recommendations by Professor Arunava Majumdar. The valedictory function was conducted by conferring felicitations on winners of oral and poster presentations as well as felicitation of the Management Faculty Members.

The final curtain on the much successful workshop was drawn with the vote of thanks addressed by Professor Mithun Kumar Guha who, on behalf of the entire fraternity, expressed his gratitude and satisfaction regarding the interactive proceedings and extensive networking that had taken place over two days. Which he hoped would continue moving constructively forward.



































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