



Chief Editor
Sayali Joshi, CEO

Editorial Board
Dr. Pramod Salaskar
Mr. Bapi Gain
Ms. Shital Nivale

Contact: Executive Editor, Shrishti Eco-Research Institute, B-106, Devgiri, Opp. P. L. Deshpande Garden, Near Ganesh Mala, Pune - 411 030. India. Phone: 91-20-24253773 /Telefax: 91-20-66206539

Website: www.seriecotech.com Email: seri_news@yahoo.co.in

Point for discussion this month

Executive Editor, Design
Susmit

Advisors
Dr. Mangesh Kashyap
Dr. Jayant Mandlik
Mr. Vinod Bodhankar

Relation of poverty and population with poor environment conditions

(For private circulation only) Pl. note that the ownership of views expressed by the author lies with him / her only. SERI's management does not endorse or own them.

Eternal Words

"It is easy, quick and cheap to damage natural streams, but hard, slow and expensive to return them to towards natural state, and often it is not possible to reinstate the complex functioning of its natural state back to a degraded river reach. Therefore, the highest priority for river management is the prevention of damage in the first place, especially to rivers that remain in good condition." - Rutherford

Dear Readers,

Greetings!

“Did developed countries exploit the environment to a greater extent during their development or are the developing countries doing it more?” is a never ending debate. India’s then Hon. Prime Minister Ms. Indira Gandhi has stated in her address, delivered at the [first global conference on the human environment \(UNCHE\)](#) in Stockholm in June 1972, that “We do not wish to impoverish the environment any further and yet we cannot for a moment forget the grim poverty of large numbers of people.” This statement has triggered a debate which is still persists. The Environment Performance Index (EPI) study carried out by Yale University and Columbia University in collaboration with the World Economic Forum has yielded a list of countries from rated highest to lowest in environmental performance. This list, once again put forth the contribution of developing and developed countries in the deterioration of environment. One can also interpolate this study to judge their own personal performance.

While executing the river restoration projects at different regions in the country, the major problem we have to deal with is the Municipal Solid Waste (MSW). The mindset of throwing the waste into flowing water which is then taken away from our sights has rendered our precious water resources as carriers of MSW. Proper scientific management and awareness are the keys to this universal problem. We are discussing it in this issue.

We are deeply honored to have hosted Dr. Suresh Naik to deliver the fourth lecture of the *Prof. Sandeep Joshi Memorial Lecture Series*. It was greatly appreciated by the audience. Dr. Naik explained the perplexing topic of “Space Waste Management” with the help of audio visuals and made it lucid for the broader audience. His profound knowledge of the subject is admirable and his enthusiasm is simply contagious.

Thank you,

The Chief Editor

Prof. Sandeep Joshi Memorial Lecture Series – Fourth Year

Since the year 2015, Shrishti Eco-Research Institute (SERI), Society for Environment Education Research And Management (SEERAM) and Shrishti Environment and Sustainability Society (SESS) are organizing *Prof. Sandeep Joshi Memorial Lecture Series* to commemorate the loving memories of our mentor Prof. Sandeep Joshi, Eco-technologist, who relentlessly worked for more than 25 years for the restoration of the polluted waters, rivers and drains both nationally and internationally. To reminisce his extravagant achievement and to honor the great work tradition set by Prof. Sandeep Joshi, every year on the occasion of his birth anniversary, the 7th of January, we organize this lecture.

The fourth lecture of this series was organized on 7th January 2018. This year Prof. Suresh Naik, Chairman International Space Society and Former Group Director, ISRO has obliged us by accepting our invitation to present his ideas.

Miss. Shital Nivale welcomed the speaker and the audience. She introduced the audience to the work of SERI and SEERAM and narrated the objective of the lecture series.

The film, ‘**Sandeep Joshi... An inspiring Confidence**’ was shown at the commencement. The devoted life journey of Prof. Sandeep Joshi for the restoration of water bodies has been aptly depicted in the film. The relentless work of Prof. Joshi and his ease of interaction with a wide range of people from local rural communities to countries’ head-of-state were impressive. It touched the heart of the audience and inspired them greatly.

The programme was inaugurated by tradition with ‘*Jal Pujan*’ while Miss. Shital chanted Sanskrit *shlokas* highlighting the importance of water in our lives. Along with Dr. Suresh Naik, the Speaker, Mrs. Sayali Joshi CEO of SERI and Dr. Mangesh Kashyap, President of SEERAM were on the dais.

Mrs. Joshi welcomed and felicitated Dr. Suresh Naik.

Dr. Kashyap of SEERAM made the audience familiar with the objective and the thought behind the program. Mrs. Sayali Joshi shared some memories of Prof. Joshi as a guide, visionary and founder Director of SERI. She also gave a brief overview of SERI’s latest efforts.

Dr. Suresh Naik elaborated on the topic of waste management in outer space, pertaining to Low-Earth-Orbit (LEO) and space debris.

According to him, each country every year launches a multitude of artificial satellites in to orbit to make human life easier. When these satellites complete their design lifespan, they just continue in a slowly decaying orbit as debris. Such space debris is accumulating in large quanta every year. This debris which poses extreme

hazards to the new as well as existing satellites, must be modeled using complex trajectory analyses to avoid interference. The sources also include separated and discarded rocket stages and their fragments.

He explained the technical jargon and the process progression from the launching of the satellite into space till its conversion to waste and the techniques used by ISRO to reduce the space waste.

It was an exhilarating experience to listen and understand the niches from Dr. Naik, a well versed and hard to the core scientist. His mastery of the subject combined with his modesty is exemplary.

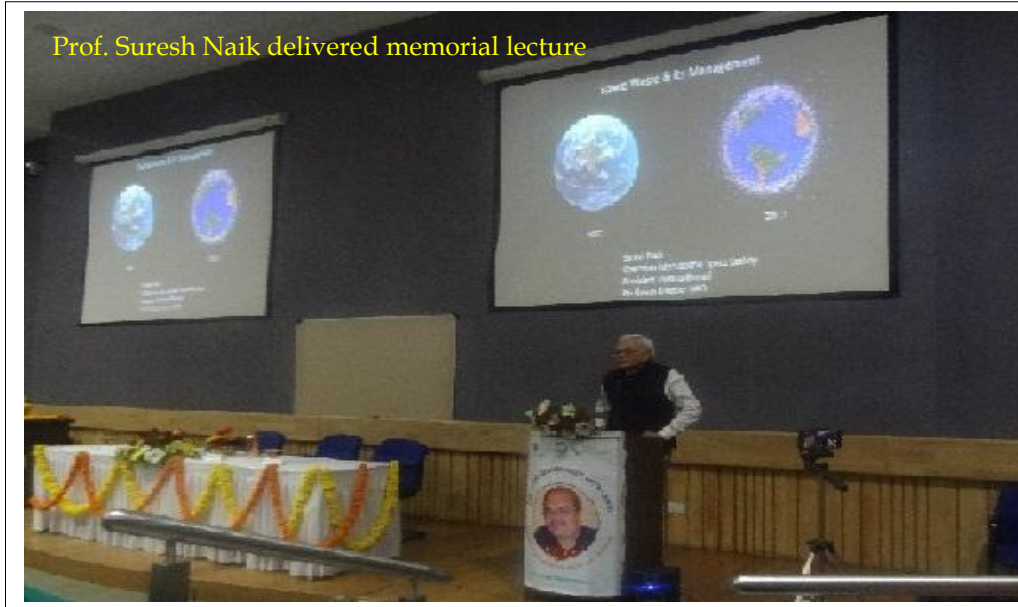
The audience, elated and eager to interact with Dr. Naik, participated in the post-talk discussion whole-heartedly, making the session highly interactive.

Miss. Shital Nivle piloted this event. Dr. Mangesh Kashyap expressed the vote of gratitude.

The programme was enthusiastically attended by people from all walks of life, who worked with Prof. Joshi or know his work and passion. They gathered to show their gratitude towards the great visionary.

Please follow the URL for the lecture: <https://YouTube.be/ldQouoTx5C1M>





India is Retreating on World's Map in Handling Environmental Issues: Environment Performance Index (EPI) 2018

The Environment Performance Index (EPI) is a research project. The aim of the EPI is to establish an international composite environment index. This research project attempts to facilitate quantitative comparison of the environmental performance of various countries. The objective of EPI is to assess the relative successes of the environmental policies of every state. The EPI report ranks the countries on 10 broad issues, including 24 performance indicators, covering environmental health and ecosystem vitality. These performance indicators include air quality, water & sanitation, CO₂ emission intensity (emission per unit of GDP), forests cover (deforestation) and waste water treatment among others.

EPI identifies scores of different countries which are taking efforts to handle environmental issues. This research yielded individual country scores, noting the top five countries as Switzerland (1st), France (2nd), Denmark (3rd), Malta (4th) and Sweden (5th) and bottom five countries as Burundi (180th), Bangladesh (179th), Congo (178th), India (177th) and Nepal (176th). Switzerland stands out in the categories of climate, energy and air pollution. Denmark, Malta and Sweden stand out for high scores in air quality within environmental health. Malta scores the highest in water and sanitation.

Switzerland is the top performer on 2018 EPI, with highest pointers in biodiversity, habitat protection, climate and energy. Switzerland has only one designated protected park area. But the country, over the past five years, has introduced 15 new regional parks with two national park projects. With these park development initiatives, Switzerland achieved the highest possible score for protected terrestrial areas. In terms of climate change; Switzerland has reduced the carbon intensity of its economic growth. In 2000, Switzerland passed a CO₂ Act stipulating the energy based CO₂ emissions to be reduced by 10 percent of the 2000 levels. In 2013, it reset the goal to at least 20 percent of the 2000 levels. Switzerland reducing both its carbon intensity and changes with overall climate change ranks 1st in the climate & energy policy category.

According to environment Performance Index (EPI), India is the fourth worst country in the world when it comes to handling environmental issues. Out of 180 countries, India ranked 177, only better in environmental performance than Congo, Bangladesh and Burundi. This is particularly worrying since a couple years back; India's rank was 141. The EPI report said that a low rank means a nation is in dire need to step up its efforts in cleaning up air, protecting biodiversity and reducing greenhouse gas emissions. It also said that countries with a low air quality like India, China and Pakistan are facing major public health crises. The fact that rapidly growing economies like China and India ranked low, reflects that countries with high economic growth achieve this at the expense of and by affecting the

environment adversely. However, China, ranked 120th appears to be in a significantly better shape than India, ranked 177th.



Toxic Wastelands Are Killing Pune's Mutha River

Urban rivers are not only carry sewage and industrial wastewater but are also the conveyors of Municipal Solid Waste (MSW). Improper solid waste management leads to illegal dumping of MSW on the river bed. Rapid and poorly planned urban development is forcing the river to become a waste carrying channel.

Pune city, the 'Western Knowledge Hub' is but an example of this apathy towards surface water bodies. Wide toxic wastelands that extend up to the surrounding villages of Shivne, Nanded, Warje have devastated the Mutha river. These dumping sites are prevalent immediately downstream of Khadakwasala dam, the largest fresh water source for the Pune city and the point of entry for the river in to the city limits. These garbage dumping sites are enough to interrupt the flow of the river and affect the greater water and air quality of that area.

The small villages adjacent to the municipal corporation jurisdiction limits always look toward the higher local authority to take the responsibility of waste management, thereby refusing to come up with the on-site planning and facility for collection and proper disposal of solid waste.

Not only the lack of facility but also the lack of awareness is adding to the severity of the problem. After years of dumping the localities started incineration to reduce the volume and to get rid of the odor of the waste.

Such illegal garbage dumping can potentially impede the natural storm water runoffs. During monsoon this waste finds its way in the rivers and short-term streams and becomes an obstruction in the course causing flooding in the adjacent areas, many times resulting into property damage. The flood to the Mithi River in Mumbai in the year 2006, which was the cause behind severe loss of life and property, is a consequence of such dumping of MSW.

The case of Pune's Mutha river can be understood to represent a similar state-of-affairs in every developing country on the globe where water bodies don't have a place in the scene of development.

Three important aspects constitute the remedy to the problem:

1. Administrative willingness
2. Public participation - awareness and vigilance
3. Accepting our surface water bodies as entities with life

A single window approach is necessary to solve the issues of fresh water resources. The local administration should have one dedicated officer for all the issues related to rivers and lakes.

A mass public movement of awareness should be conducted by local authority where all stakeholders must be involved and a sense of ownership of the water-body should be kindled in the society. This will increase the vigilance and people

themselves will look after different stretches of river in the city area which will ensure its protection against menace or misuse.

"Jeevitnadi" a Pune based NGO is practically implementing the idea of 'Adopt a Stretch' on the rivers of Pune. They are getting remarkable responses from the local communities, schools and experts.

All the issues that are threatening the existence of our precious water resources are somehow related to the negligence at different levels in the society. As a responsible civilization, we are bound to our duties of protecting every human or animal life not only through our legislature, but also through our conscience.



Solid Waste Dumping in Mutha River, Shivane Pune



Solid Waste Dumping in Assi River, Varanasi