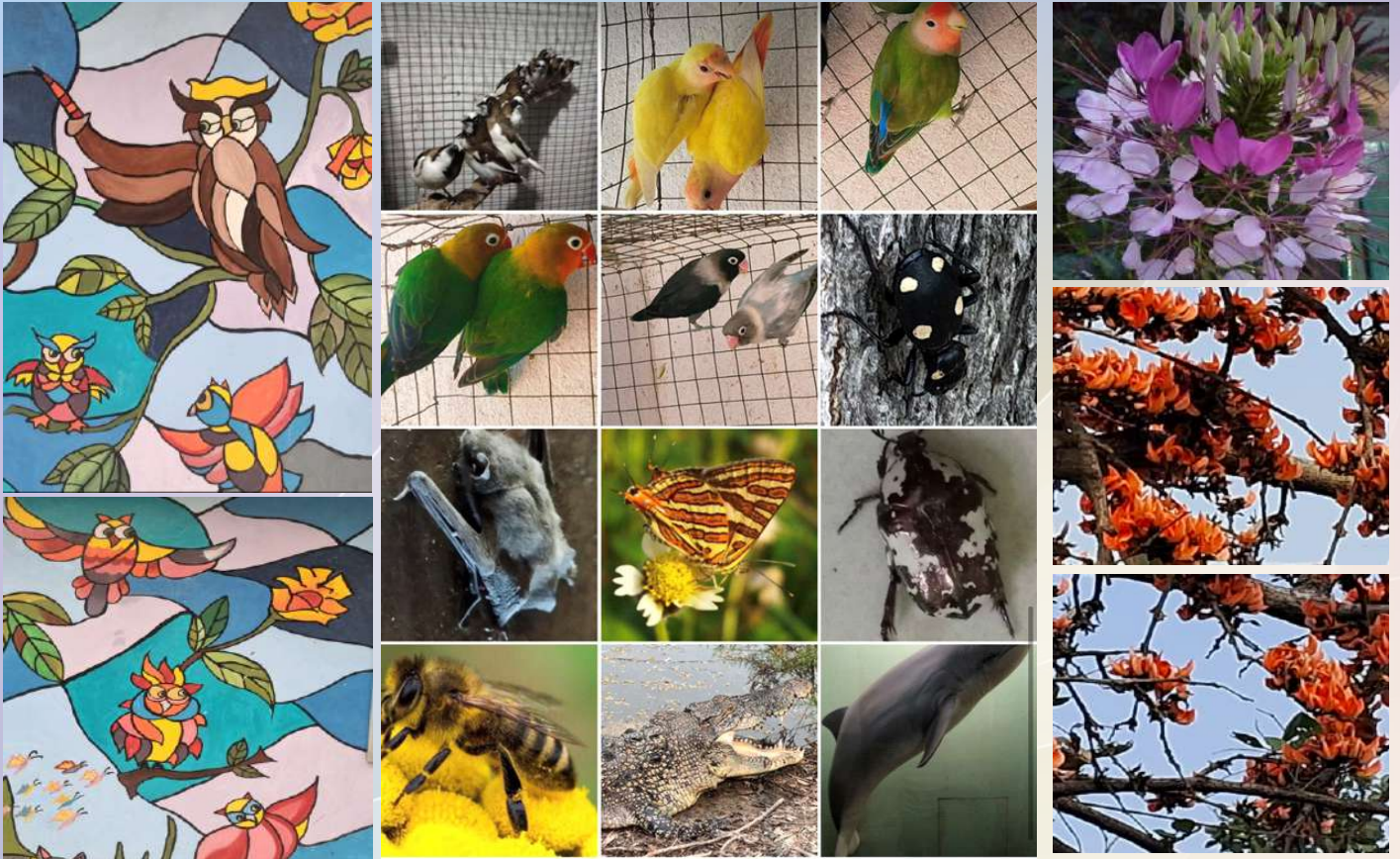




# PRAKRITI SANRAKSHAN

## Newsletter

Volume 5, Issue 1, Jan.-Mar., 2024



## ABOUT US

### Save the Environment (STE)

**SAVE THE ENVIRONMENT (STE)** is the organization that aims to spread awareness to the society about environment, health and water. It was founded and registered on 19th November 1990. STE has collaborated with various organizations in the past 33 years such as All India Institute of Hygiene & Public Health, AIIH&PH and India Canada Environment Facility, DRDO, Ministry of Defence, Department of Science and Technology (DST),

Indian Institute of Management (IIM), Ahmedabad to mitigate the effects of arsenic and provide arsenic-free drinking water.

The vision of the society is to protect present and future generations from various Environmental Hazards. The NGO has been actively organizing various interactive sessions such as conferences (National and International), workshops, seminars and awareness programs including poster competitions, quiz competitions, science exhibitions and webinars among the future generations.

## HUMBLE APPEAL for CSR FUNDS

### To continue your Kind support for clean water supply and sanitation facility project at the STE adopted village Bankanali, Block Pancha, Distt. Purulia

Save The Environment (STE) extends its gratitude and thankfulness for your benevolent support which has made possible the installation of a drinking-cum-wash water unit at the cost of about Rs four and a half lakh (Rs. 4.5 Lakh only) in the first phase of the subject project at STE adopted village Bankanali, Pancha Block, Distt. Purulia, West Bengal. Many households, in dire need of proper water facilities, are somewhat benefitting from the same.



However, a long path remains ahead of us in order to complete the pursuit undertaken. In this endeavour, we plan to provide various water supply units in adjoining areas, rejuvenate and restore the available ponds, create the rain water harvesting systems, reuse of waste water, plantation, Electrification in the village using Solar energy and also to install toilets in the school and other places to be used by people. Looking forward for your kind support to complete the above project.

In this regard, we at STE, earnestly request all the citizens, corporates, life members of STE and patrons to kindly come forward and support for this noble cause. Your generous donation will be a pillar for us and will certainly enable us to bring a smile to several underprivileged persons.

Details of the proposed project are :

#### ACTIVITIES

- Restoration of ponds
- Installation of Rain Water Harvesting Systems
- Solar Electrification in the Houses and roads
- Distribution of drinking water by pipe line in the village
- Constructions of toilets in school, houses and other public places and plantation etc.

Looking forward to receiving your generous support.

#### Contact details:

Phone: 9871372350; 9830779260 Email: info@stenvironment.org

#### Account details for donating funds:

##### ONLINE PAYMENT:

Name of the Account: **SAVE THE ENVIRONMENT**  
 Account Number: **38041963371**  
 Bank and Branch: **State Bank of India, Lake Town, Kolkata**  
 IFSC Code: **SBIN0001506** OR  
 GOOGLE PAY to: **Mrs. Chhanda Basu; Mobile 9830779260**

## ENVIRONMENTAL EDUCATION AND AWARENESS AMONG KIDS IN KOLKATA

S. K. Basu

PFS, Lethbridge, Alberta, Canada;

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Drawing on the outer walls by children before Saraswati Puja at the Housing Society of Chhayanat Co-operative Housing Society, Calcutta Greens, Area: Survey Park, Ajay Nagar. The pump house outer wall was full of damp. The ugly surfaces were coated with white colour and allowed to dry. Thereafter, the children were provided with oil-colour and brush. Provided some layout pictures on Environmental awareness and allowed full freedom. An STE initiative to promote education and awareness about ecosystems among the children. We Sincerely thank Dr. Tridib Bandyopadhyay for his warm encouragement, support and help for this initiative.



Photo credit: Saikat Kumar Basu

## ENVIRONMENTAL EDUCATION AND AWARENESS AMONG KIDS IN KOLKATA

S. K. Basu

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Biodiversity, short for biological diversity, refers to the variety of life on Earth, including the diversity of species, ecosystems, and genetic variation within species. Biodiversity encompasses the multitude of living organisms, from microorganisms to plants, animals, and humans, and the complex interactions among them.

Biodiversity is critically important for several reasons:

### 1. Ecosystem Stability:

- o Biodiversity contributes to the stability and resilience of ecosystems. Diverse ecosystems are often better able to withstand environmental changes and disturbances, such as climate events and disease outbreaks.

### 2. Ecosystem Services:

- o Biodiversity provides numerous ecosystem services that benefit human well-being, including clean air and water, pollination of crops, pest control, and the regulation of climate and disease.

### 3. Economic Value:

- o Biodiversity supports economies through agriculture, forestry, fisheries, and tourism. Many industries depend on diverse ecosystems and species for their livelihoods.

### 4. Genetic Resources:

- o Biodiversity offers a vast genetic pool that is essential for breeding programs, crop improvement, and developing new medicines. It provides resilience against diseases and helps adapt to changing environmental conditions.

### 5. Cultural and Aesthetic Value:

- o Biodiversity is central to cultures, providing spiritual, aesthetic, and recreational value. It is often integral to cultural practices, art, and heritage.

### 6. Scientific Understanding:

- o Biodiversity is a source of scientific knowledge. Studying diverse species and ecosystems enhances our understanding of life on Earth, ecological processes, and adaptation strategies.

### 7. Climate Regulation:

- o Ecosystems play a role in regulating climate

through processes like carbon sequestration. Healthy forests and wetlands, for example, help mitigate climate change by absorbing and storing carbon dioxide.

### 8. Food Security:

- o Biodiversity in agriculture and fisheries contributes to food security by providing a wide range of crops and species that can be used to adapt to changing dietary needs and environmental conditions.

### 9. Medicine and Health:

- o Many pharmaceuticals and medical treatments are derived from natural compounds found in various species. Biodiversity is a potential source of future medical breakthroughs.

### 10. Ethical and Moral Responsibility:

- o There is an ethical and moral imperative to protect and preserve the diversity of life on Earth. Human activities have led to species extinctions, and the responsibility to prevent further losses is widely recognized.

Biodiversity is not only vital for the functioning of ecosystems and the health of the planet but also for the well-being and survival of humanity. It is an interconnected web that supports our lives in numerous ways, making its conservation crucial for current and future generations.

Biodiversity, the variety of life on Earth, is indeed facing significant challenges. Some of the key challenges to biodiversity conservation include:

### 1. Habitat Loss and Degradation:

- o The conversion of natural habitats into agricultural land, urban areas, and infrastructure development is a major driver of biodiversity loss. Deforestation, wetland drainage, and land conversion have a profound impact on many species.

### 2. Climate Change:

- o Rising global temperatures and altered weather patterns can disrupt ecosystems and affect species' distributions and migration patterns. Some species may struggle to adapt or face increased risks of extinction due to changing conditions.

### 3. Pollution:

- o Pollution from chemicals, plastic waste, and pollutants in the air, water, and soil can harm ecosystems and species. For example, ocean

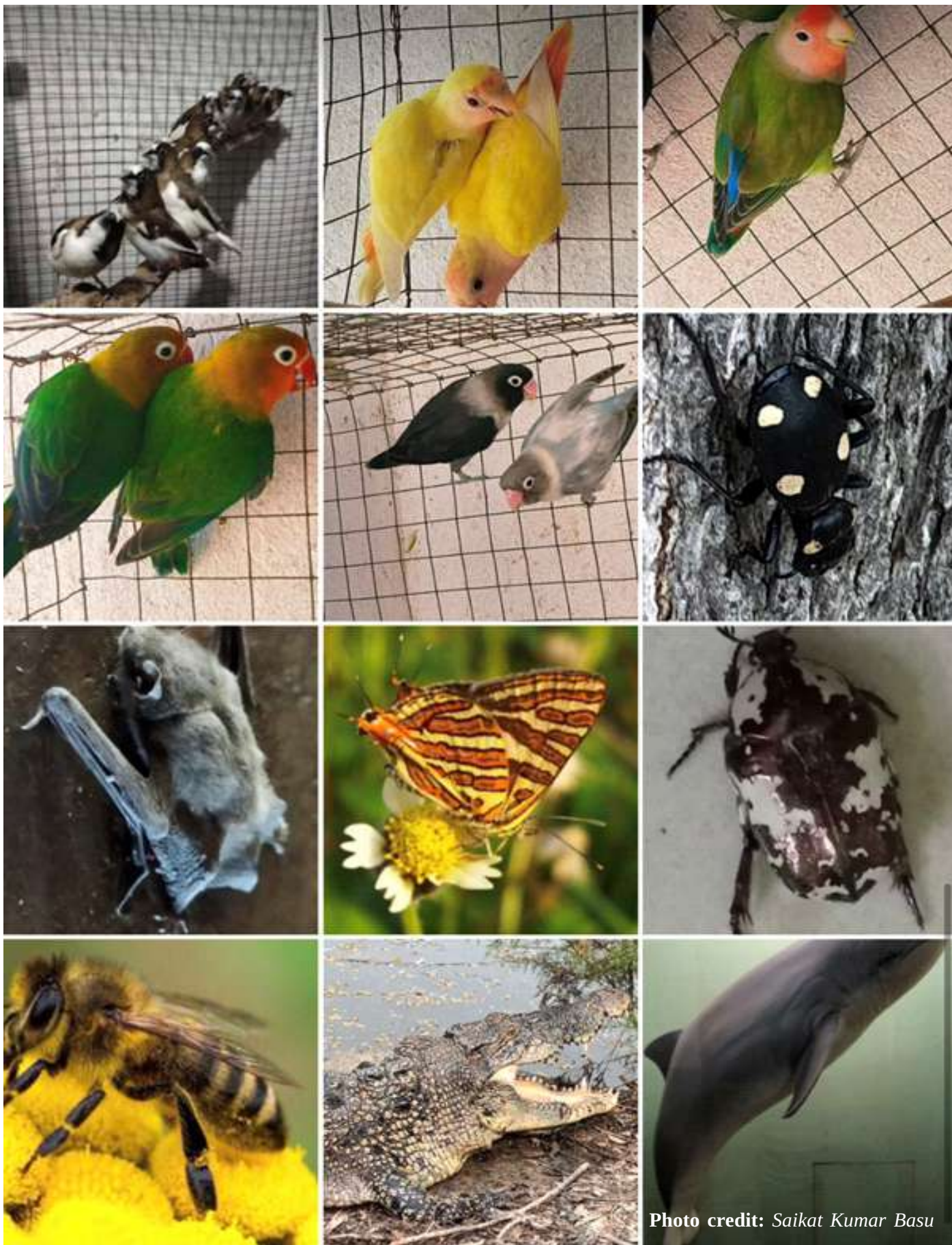


Photo credit: Saikat Kumar Basu

pollution affects marine life, and pesticides can harm insects critical for pollination.

**4. Overexploitation:**

- o Unsustainable hunting, fishing, and harvesting of wildlife and plants can lead to population declines and extinctions. This includes overfishing, poaching, and illegal wildlife trade.

**5. Invasive Species:**

- o Invasive non-native species can outcompete or prey on native species, disrupting ecosystems. These invasives often thrive due to human activities like trade and travel.

**6. Disease:**

- o The spread of diseases, including those facilitated by climate change and wildlife trade, can devastate populations. For example, diseases like chytridiomycosis have caused declines in amphibian populations.

**7. Fragmentation:**

- o Habitat fragmentation due to roads, urban development, and other barriers can isolate populations, reducing genetic diversity and making species more vulnerable to extinction.

**8. Lack of Awareness and Education:**

- o Public awareness and education about the value of biodiversity and the threats it faces are essential.

Many people remain unaware of the importance of conserving diverse species and ecosystems.

**9. Lack of Legal Protections:**

- o Inadequate or poorly enforced environmental laws can fail to protect species and habitats from harmful activities.

**10. Economic Pressures:**

- o Economic interests, such as agriculture, mining, and fisheries, often clash with conservation goals, making it challenging to strike a balance between human development and biodiversity conservation.

**11. Globalization:**

- o The globalization of trade and travel can facilitate the spread of invasive species and diseases, increasing the risks to local biodiversity.

**12. Limited Resources for Conservation:**

- o Many conservation efforts are underfunded, limiting the ability to effectively protect and restore ecosystems and species.

Conserving biodiversity requires a multi-faceted approach, including habitat protection, sustainable resource management, international cooperation, and public engagement. It's crucial to address these challenges collectively to safeguard the planet's biodiversity for future generations.

**प्लास्टिक प्रदूषण का खतरा**

**S. K. Basu**

PFS, Lethbridge, Alberta, Canada;

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प्लास्टिक प्रदूषण हमारे ग्रह पर बढ़ ला रहा है, लोगों के स्वास्थ्य को नुकसान पहुंचा रहा है, जैव विविधता को नष्ट कर रहा है और जलवायु संकट को बढ़ा रहा है। लेकिन अभी, हमारे पास वैश्विक स्तर पर प्लास्टिक प्रदूषण से निपटने का पीढ़ी में एक बार आने वाला अवसर है!

वैश्विक प्लास्टिक संधि के लिए महत्वपूर्ण तीसरे दौर की बातचीत के लिए विश्व नेताओं ने 13 नवंबर को नैरोबी में अपनी

बैठक शुरू की है।

मुख्य मांग 2040 तक प्लास्टिक उत्पादन में कम से कम 75: की कटौती करना है ताकि यह सुनिश्चित हो सके कि हम 1.5 डिग्री सेल्सियस से

नीचे रहें। जलवायु संकट के अपरिवर्तनीय प्रभावों को रोकने में मदद करने के लिए यह महत्वपूर्ण है, क्योंकि प्लास्टिक उद्योग 2050 तक उत्पादन को तीन गुना करने की योजना बना रहा है, और उनमें से 99: तेल और गैस से बने हैं।

संधि वार्ता के बारे में जागरूकता पैदा करने के लिए, ग्रीनपीस इंडिया ने ब्रेक फ्री फ्रॉम प्लास्टिक मूवमेंट के साथ चेन्नई के तट पर एक ब्रांड ऑडिट सफाई अभियान चलाया। पर्यावरण के प्रति उत्साही और स्वयंसेवकों की टीम ने लगभग 11 किलोग्राम कूड़े की पहचान की, प्लास्टिक के प्रकारों को वर्गीकृत किया और उन ब्रांडों को नोट किया जिनके ये उत्पाद थे।

एक ऐसे वर्ष में जिसमें घातक जीवाश्म-ईंधन वाला चरम मौसम और दर्ज इतिहास में सबसे गर्म जून-अगस्त देखा गया, हमारी जलवायु, स्वास्थ्य, समुदाय और ग्रह तब तक जीवित नहीं रह सकते जब तक कि हम प्लास्टिक उत्पादन में भारी कमी नहीं करते। अपने सामूहिक भविष्य की खातिर, हम इस क्षण को बर्बाद नहीं कर सकते। याचिका पर हस्ताक्षर करें और अपना समर्थन दिखाएं।

## क्या आपने कभी अपने “सपनों के शहर” के बारे में सोचा है?

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क्या आपके “सपनों के शहर” में स्वच्छ हवा, स्वच्छ पानी, शिक्षा और चिकित्सा उपचार तक आसान पहुंच और प्रकृति से जुड़ने के लिए सुरक्षित, हरे-भरे स्थान हैं? बहुत लम्बे समय से लोग शहरों में रह रहे हैं। जैसे-जैसे समय बीतता गया, शहरों की संरचना और लेआउट बदल गए, और लोग विकसित हुए, जिससे उनकी जरूरतों और इच्छाओं में बदलाव आया जो जलवायु को प्रभावित करता है।

आज जलवायु परिवर्तन का प्रभाव हर किसी पर पड़ रहा है। जैसे-जैसे दुनिया बाढ़, लू, चक्रवात और बहुत कुछ से जूझ रही है, दुनिया भर के शहरों में जीवन की गुणवत्ता गिर गई है। शहरी मुद्दों और जलवायु संकट के संबंध में ग्लोबल साउथ के सात शहरों में रहने वाले लोगों की राय और भावनाओं को समझने के लिए हाल ही में एक ग्लोबल ओपिनियन पोल आयोजित किया गया था। जैसे-जैसे प्रतिक्रियाओं का विश्लेषण किया गया, एक बात स्पष्ट थी, नागरिकों में आशा की भावना है।

जिन शहरी निवासियों से परामर्श लिया गया उनमें से आधे से अधिक (56:) भविष्य के बारे में आशावादी हैं और मानते हैं कि उनका शहर उनका “सपनों का शहर” बन सकता है। यह आशा है – आशा है कि हमारे नेता एक दिन ऐसी नीतियों को बढ़ावा देंगे जो उनके शहर को रहने योग्य और सांस लेने योग्य बनाएंगी। लोगों को जहां उम्मीद है, वहीं वे अपने शहर की कमियों से भी वाकिफ हैं. आधे से भी कम (47:) लोग जिस शहर में रहते हैं वहां चरम मौसम की घटनाओं (जैसे बाढ़, अत्यधिक गर्मी या ठंड, या भूस्खलन) से सुरक्षित महसूस करते हैं। जब उनके शहरों में सबसे बड़ी समस्याओं के बारे में पूछा गया तो शीर्ष दो

प्रतिक्रियाएं जुड़ी हुई थीं जलवायु परिवर्तन के लिए: यातायात भीड़ (46:) और वायु प्रदूषण (42:)।

हमने लोगों से जो सुना है, उससे यह बिल्कुल स्पष्ट है कि जलवायु आपातकाल पर ध्यान देने की जरूरत है।

हमें एक समग्र दृष्टिकोण की आवश्यकता है जो सार्वजनिक परिवहन, सुरक्षा, स्वच्छ हवा तक पहुंच और बहुत कुछ के संदर्भ में लोगों की जरूरतों को पूरा करे। इसे प्राप्त करने के लिए, हमें समुदायों की बात सुननी चाहिए क्योंकि उत्तर वहीं है। उनके संघर्षों और अनुभवों को समझने से हमें जलवायु संकट को हल करने के करीब पहुंचने में मदद मिलेगी। दिल्ली में अपनी हालिया गतिविधियों के माध्यम से, हम युवाओं, महिलाओं और अन्य अल्पसंख्यक समूहों को सुन रहे हैं क्योंकि वे सार्वजनिक परिवहन के साथ अपने संघर्षों पर चर्चा कर रहे हैं। ये व्यावहारिक चर्चाएँ न केवल प्रचलित मुद्दों पर प्रकाश डालती हैं बल्कि देश में चल रही वायु प्रदूषण महामारी के लिए रचनात्मक समाधान भी प्रस्तावित करती हैं।

मतदान के परिणामों के आधार पर, लोग अपने शहर की कल्पना कैसे करते हैं, इसकी कल्पना करते हुए एनिमेशन की एक श्रृंखला बनाई गई। दिल्ली में, लोगों ने साइकिल चालकों और टिकाऊ सार्वजनिक परिवहन से भरी जीवंत हरी सड़कों का सपना देखा, जिसमें स्ट्रीट वैंडर, संगीतकार और परिवार साझा स्थान का आनंद ले रहे थे। सर्वेक्षण के उत्तरदाताओं के बीच वायु प्रदूषण एक बड़ी चिंता है, स्वच्छ हवा दिल्ली के लिए इस दृष्टिकोण का एक महत्वपूर्ण हिस्सा है।

अब देखिए, जब हम समुदाय के सदस्यों के साथ बातचीत करते हैं, तो यह उल्लेखनीय है कि हालांकि वे अपने शहर की कमियों और जिन मुद्दों से जूझ रहे हैं, उनके बारे में जानते हैं, लेकिन उन्होंने उम्मीद नहीं खोई है। लोगों का दृढ़, स्पष्ट और सामूहिक विश्वास है कि सकारात्मक परिवर्तन संभव है। लोग आशा के साथ जीते हैं। हम भी ऐसा ही करें, क्योंकि हम जलवायु न्याय के लिए इस लड़ाई में आगे बढ़ रहे हैं, आशा के साथ।



पिक्चर श्रेय: सैकत कुमार बासु

### विज्ञान: एक सौगात

Science है एक ऐसी शक्ति  
जिसने सबको मनमोहक है किया  
बैठ कर पानी पीने से लेकर भगवान की भक्ति  
इन सबके पीछे का हमें **reason** है  
दिया, **reason** है दिया



Robert Hooke ने  
**cells** discover किए  
महान **scientist** लाए विज्ञान में परिवर्तन  
इन्होंने इतने बड़े **initiative** है लिये  
लाखों **scientist** ने दिया अपना  
समर्थन, दिया अपना समर्थन  
विज्ञान किताबों तक सीमित नहीं  
**explore** करने की बात है  
हर मिनट होते नए **innovation** कहीं ना कहीं  
**science** दुनिया को दी गई एक  
सौगात है, सौगात है  
भारत के लिए गर्व की बात है

विज्ञान में इतनी प्रगति करना  
उन महान **scientists** को हमारा सलाम है  
जिनकी खातिर हमारे देश का संभव  
हुआ उभरना, संभव हुआ उभरना

**Anshika Sharma (X C)**

ITL Public School, Dwarka Sector 9, New Delhi

### TRADITIONS UNRAVELED

From generation to generation,  
We pass down our ways,  
Of celebrating, healing and connecting,  
To the rhythms of our days.

Our traditions are more than memories,  
Of what our ancestors did,  
They're rooted in the science of the earth,  
And the natural world we live.

We celebrate the solstice,  
And the equinox too,  
To mark the changing seasons,  
And the cycles that renew.

We use natural remedies,  
Passed down through the years,  
To heal our bodies and our spirits,  
And ease our pain and fears.

Our traditions are a part of us,  
They're woven in our history,  
And they help us to connect,  
To the world's great mystery.



So let us honour our traditions,  
And the science that they hold,  
For they are the key to understanding,  
The stories that we've told.

**Gunishka Dhingra (X E)**

ITL Public School, Dwarka Sector 9, New Delhi



## IMPORTANT DAYS AND ACTIVITIES JANUARY/FEBRUARY/MARCH 2023

**Prof. V. Sunitha**

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Yogi Vemana University, Kadapa, A.P. 516005  
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### 1-January: Happy New Year

**2024:** In many countries, New Year's Eve celebrations begin on December 31 and run into the early hours of January 1. New Year's greetings in the year 2022: According to the Gregorian calendar, New Year's Day (January 1) is one of the most celebrated holidays.



### 4-January: World Braille Day



Louis Braille is the creator of braille, the braille script that blind people use to read. He became blind as a result of an injury when he was a child, which inspired him to create the Braille script.

### 9-January: Pravasi Bharatiya Divas (NRI Day)

Overseas Indian community, who reside around the world, to honor their contributions to the development of India. This day also marks Mahatma Gandhi's return to Mumbai from South Africa on January 9, 1915.



### 9 January - Guru Gobind Singh Jayanti



He was the tenth and final of the personal Sikh Gurus, and he is well known for founding Khalsa, the Sikh military brotherhood. He was the ninth Guru Tegh Bahadur's son.

### 10-January: World Hindi Day

It is celebrated on 10 January to emphasize the Hindi language which is one of the oldest and widely spoken languages in India commemorate the First World Hindi Conference.



### 11 January – Death anniversary of Lal Bahadur Shastri



He was India's second Prime Minister after independence. He popularised the term "Jai Jawan, Jai Kisan" (Jai Jawan, Jai Kisan). He was an ardent participant in India's independence struggle. He died on January 11, 1966, from heart arrest

### 11 January - National Human Trafficking Awareness Day

It is observed on 11 January to spread awareness about the persistent issue of human trafficking.



### 12 January – National Youth Day



National Youth Day

Swami Vivekananda, was a Hindu monk who introduced Indian darshans of Vedanta and yoga to the Western world. His birthday day is celebrated as national youth day.

### 14 January - Makar Sankranti

It will be commemorated on the 14th of January this year, marking the end of the Winter season and the start of a new harvest season.



### 19-January: National Immunization Day (Polio Day)



National Immunization Day (Polio Day): Poliovirus, which is now endemic in India to prevent children from contracting with poliovirus vaccine drive is conducted every year on this day.

### 23 January - Netaji Subhas Chandra Bose Jayanti

Netaji Subhash Chandra Bose was born in Cuttack, Orissa, on January 23, 1897. He was one of India's most well-known liberation fighters. Indian National Army (INA) or Azad Hind Fauj was the name of his army. During World War II, he also led an Indian national force from afar against the Western forces.



### 24 January- National Girl Child Day



On 24 January every year, National Girl Child Day is celebrated to highlight the inequalities faced by a majority of the girls in India, the importance of

education, nutrition, legal rights, medical care and safety of girl children, etc.

**25 January- National Voters Day**

Every year on January 25, National Voter's Day, or Rashtriya Matdata Diwas, is commemorated to encourage young people to participate in politics. This day was initially observed in 2011 to commemorate the founding of the Election Commission.



**25 January- 2024**

National Tourism Day



Every year on January 25, India commemorates National Tourism Day to increase awareness and educate the public about the importance of tourism and its role in the Indian economy.

**26 January- Republic Day**

The Indian Constituent Assembly enacted the Constitution on November 26, 1949, replacing the Government of India Act 1935 as the highest law of the land. With a democratic government system, it went into force on January 26, 1950. Every year on this day, the largest parade in Delhi takes place on Rajpath.



**26 January – International Customs Day**

Every year on January 26th, the International Customs Day (ICD) is commemorated by the Customs Organization to honour the work of customs officials and agencies in border security. It also focuses on customs officers' working conditions and challenges.



**28 January- Birth Anniversary of Lala Lajpat Rai**

Lala Lajpat Rai was born in Punjab on January 28, 1865. He was a significant nationalist leader who was instrumental in India's fight for independence. He was also known as the 'Punjab Kesari,' or 'Lion of the Punjab.'



**30 January – Martyrs Day or Shaheed Diwas**

Every year on January 30th, Martyr's Day or Shaheed



Diwas is commemorated in honour of Mahatma Gandhi and the sacrifice of three Indian revolutionaries. The 'Father of the Nation' was killed on January

30, 1948.

**30 January – World Leprosy Eradication Day**

The final Sunday in January is designated as World Leprosy Day, with the goal of achieving zero incidences of leprosy-related disability in children. Disabilities, as we all know, do not appear immediately, but rather after a lengthy period of undiagnosed illness.



**1 February – Indian Coast Guard Day**



The Indian Coast Guard commemorates its founding on February 1st. The Indian Coast Guard is commemorating its 46th Raising Day this year. The Indian Coast Guard has played an important role in securing Indian coastlines and enforcing regulations within India's Maritime Zones.

**2 February – World Wetlands Day**

Every year on February 2nd, the world commemorates World Wetlands Day. This day commemorates the passage of the Convention on Wetlands in Ramsar, Iran, on February 2, 1971. In 1997, it was the first time it was commemorated. The topic for World Wetlands Day 2020 is "Wetlands and Biodiversity."



**2 February - RA Awareness Day**



RA Awareness Day, or Rheumatoid Arthritis Awareness Day, is observed on February 2nd to raise awareness for rheumatoid arthritis patients.

**4 February - World Cancer Day**

Every year on February 4th, World Cancer Day is commemorated around the world by the World Health Organization (WHO) to raise awareness about cancer and how to treat it.



**4 February – Surajkund Crafts Mela**



Surajkund Crafts Mela will place from February 2 to 18 February, 2024 in Surajkund, Faridabad, Haryana. It's a festival honouring Indian folklore and cultural history. The richness and diversity of India's handicrafts, handlooms, and cultural fabric are on

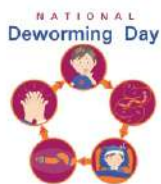
display at this Mela.

**8 February - Safer Internet Day**

It will be observed on February 8th this year. The day encourages all stakeholders to work together to make the internet a safer and more enjoyable place for everyone, particularly children and teenagers.



**10 February - National De-Worming Day**



It is observed on 10 February. It is an initiative of the Ministry of Health and Family Welfare, Government of India to make every child worm-free in the country.

**11 February - International Day of Women and Girls in Science**

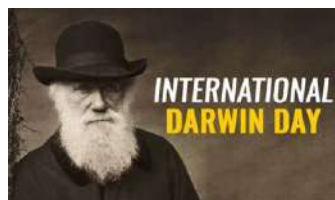


It is marked on February 11th to recognize the importance of women and girls in science as both beneficiaries and change agents. As a result, the focus of the

day is on ensuring that women and girls have full and equal access to and participation in science. Also, to establish gender equality and women's and girls' empowerment.

**12 February – Darwin Day**

Every year on February 12th, Darwin Day is observed to commemorate the birth anniversary of Charles Darwin, the father of evolutionary biology, who was born in 1809.



Darwin's contribution to evolutionary and plant science is commemorated on this day. Darwin's "Origin of Species" was named the most significant academic book of all time in 2015.

**12 February - Abraham Lincoln's Birthday**

The birthday of Abraham Lincoln, the most beloved



president in American history, is honoured on February 12th. Abraham Lincoln's birthday, Abraham Lincoln Day, and Lincoln Day are all names for the same day.

**12 February - National Productivity Day**

The birthday of Abraham Lincoln, the most beloved president in American history, is honoured on February 12th. Abraham Lincoln's birthday, Abraham Lincoln Day, and Lincoln Day are all names for the same day.



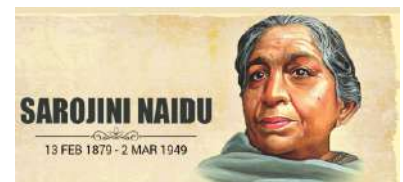
**13 February - World Radio Day**



On February 13th, World Radio Day is commemorated to promote awareness about the importance of radio. It is the principal source of information in a number of countries.

**13 February – Sarojini Naidu Birth Anniversary**

13th February is celebrated as the birth anniversary of the Nightingale of India i.e. Sarojini Naidu. She was the first Indian woman to be elected President of the Indian National Congress, as well as the first woman to be elected Governor of an Indian state, the United Province, now known as Uttar Pradesh.



**18 February to 27 February - Taj Mahotsav**



Every year on February 18th, Agra hosts the Taj Mahotsav or Taj Festival, which highlights our country's rich cultural legacy. In 2022, the event will begin

on February 18 and end on February 27.

**20 February - World Day of Social Justice**

Every year on February 20th, the World Day of Social Justice is commemorated



to encourage people to consider how social justice influences poverty eradication. This day's major goal is to obtain complete employment and social integration support. This day is dedicated to addressing concerns such as poverty, isolation, and unemployment.

**22 February - World Scout Day**



Every year on February 21st, the world commemorates International Mother Language Day to recognize the diversity and variety of languages. This day encourages people all over the world to be more mindful of

language and cultural differences. UNESCO first made the announcement on November 17, 1999.

**24 February – Central Excise Day**

Every year on February 24, India celebrates Central Excise Day to urge excise department workers to better carry out their duties in order to combat corruption in the manufacturing industry and to provide the best possible exercise services in India.



**27 February - World NGO Day**



The day is dedicated to recognizing, celebrating, and honoring all non-profit and non-governmental organizations that contribute to society, as well as the people who work for them.

**28 February – National Science Day**

Every year on February 28th, India celebrates National Science Day to commemorate the discovery of the Raman Effect by Indian physicist Sir Chandrasekhara Venkata Raman. On February 28, 1928, he discovered the Raman Effect, for which he was awarded the Nobel Prize in Physics topic in 1930.



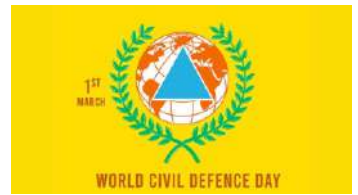
**28 February - Rare Disease Day**

For people living with a rare disease, their families, and their occupations, the day promotes awareness and creates change.



**1st March - World Civil Defence Day**

Every year on March 1st, World Civil Defence Day is commemorated to raise public awareness about the significance of civil protection and to honour the efforts, sacrifices, and accomplishments of all services involved in disaster relief. In 1990, the International Civil Defense Organization (ICDO) decided to commemorate this day.



**1st March - Self Injury Awareness Day**



It is observed on March 1st all across the world. Its goal is to eliminate the stigma associated with self-injury and urge parents, family members, educators, and healthcare professionals to recognise indicators of self-harm.

**3rd March - World Wildlife Day**

On March 3rd, the world commemorates World Oceans Day, which is directly linked to Sustainable Development Goal 12: Life without Water, which focuses on marine species and highlights the concerns and important issues that marine biodiversity poses to our daily lives. "Recovering essential species for ecosystem restoration" is the topic of World Wildlife Day 2022.



**3rd March - World Hearing Day**



Every year on March 3rd, World Hearing Day is commemorated to raise awareness about methods to prevent deafness and promote hearing around the world.

**4th March - National Safety Day**

The National Safety Council of India commemorates National Safety Day on March 4th. This day is observed to protect people from a variety of troubles such as financial loss, health problems, and other problems that they may encounter in their daily lives.



**4th March - Ramakrishna Jayanti**



Ramakrishna was born on Dwitiya in the month of Phalguna during Shukla Paksha, according to the Hindu lunar calendar. Every year on his birthday, all Ramakrishna Maths commemorate his birth. It will be observed on March

4th this year. "The entire purpose of human birth is to acknowledge God," he claims.

**8 March - International Women's Day**

Every year on March 8th, the world celebrates the social, economic, cultural, and political achievements of women. It's also a step toward achieving gender parity. Purple is a colour that is associated with women all across the world. 2024 Theme 'Invest in women: Accelerate progress'.



**9 March - No Smoking Day (Second Wednesday of March)**



Every year on the second Wednesday in March, No Smoking Day is marked to raise awareness about the adverse health effects of tobacco use and to encourage people all over the world to quit smoking. It falls on March 9 this year.

**10 March - CISF Raising Day**

Every year on March 10th, the Central Industrial Security Force (CISF) Raising Day is commemorated. The CISF was established in 1969 by an act of the Indian Parliament. Its headquarters are in New Delhi and it is part of the Union Ministry of Home Affairs.



**14 March – Pi Day**

Pi Day is celebrated all across the world on March 14th. Pi is a mathematical constant represented by a symbol.

**14 March - International Day of Action for Rivers**

The International Day of Action for Rivers is observed every year on March 14th to raise awareness about river protection and



demand better river policies. It's a day to raise awareness about the threats to our rivers and come up with solutions together.

**16 March - National Vaccination Day**



Every year on March 16, India celebrates National Vaccination Day, also known as National Immunization Day (IMD). When the first dose of Oral Polio Vaccine was delivered on March 16, 1995, it was the first time it was noticed. It is an attempt to raise awareness about the need to eradicate polio from the Earth.

**20 March – World Sparrow Day**

On March 20th, the world commemorates World Sparrow Day to raise awareness about sparrow conservation. This day also honours the human-sparrow bond, encouraging people to love sparrows and recognise their value in our lives.



**20 March: World Oral Health Day**



World Oral Health Day is marked on March 20th to raise awareness about oral health. The topic of World Oral Health Day 2022 is "Be Proud Of Your Mouth." To put it another way, you should cherish it

and take care of it.

**21 March - World Forestry Day**

Every year on March 21st, World Forestry Day or International Day of Forests is commemorated to raise public awareness about the importance, value, and contributions of forests in balancing the earth's life cycle.



World Forestry Day was created in 1971 during the European Confederation of Agriculture's 23rd General Assembly.

**21 March - World Down Syndrome Day**

Every year on March 21st, World Down Syndrome Day is commemorated. Down syndrome is a chromosomal arrangement that occurs spontaneously in humans and has varying implications on learning



methods, physical traits, and health. In December 2011, the United Nations General Assembly proclaimed March 21st as World Down Syndrome Day.

**21 March - World Poetry Day**

Every year on March 21st, World Poetry Day is observed to honour poetry's unique capacity to capture the creative spirit of the human mind. The decision to commemorate this day on March 21st was made at UNESCO's 30th session in Paris in 1999.



**22 March – World Water Day**



Every year on March 22nd, World Water Day is commemorated to raise awareness about the importance of freshwater and to advocate for its sustainable management. It was suggested that the United Nations Conference on Environment and Development (UNCED) in

Rio de Janeiro celebrate it in 1992. The inaugural World Water Day is commemorated in 1993.

**23rd March - World Meteorological Day**

Every year on March 23rd, World Meteorological Day is commemorated to draw attention to the importance of weather and climate to society's safety and well-being.



**24 March - World Tuberculosis (TB) Day**



World TB Day is celebrated every year on 24 March annually to commemorate the date when Dr. Robert Koch announced his discovery of Mycobacterium tuberculosis, the bacillus that causes TB in 1882. This Day is observed to educate people about

TB, its impact around the world.

**25th March - International Day of the Unborn Child**

It is observed on 25th March. It is an annual commemoration of unborn fetuses and is observed as a day of opposition to abortion.



**26 March - Purple Day of Epilepsy**



It's celebrated on March 26th to raise awareness about epilepsy and its effects on people's lives. The day also serves as a reminder to epilepsy sufferers that they are not alone.

**27 March - World Theatre Day**

Since 1962, World Theatre Day has been observed on March 27th around the world to raise awareness of the importance of the art form "theatre" and to serve as a wake-up call to governments, politicians, and organizations that have yet to recognize its value to the people and its economic potential.



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## NANOTECHNOLOGY AND ITS APPLICATIONS FOR ENVIRONMENTAL REMEDIATION

Shaurya Dhasmana

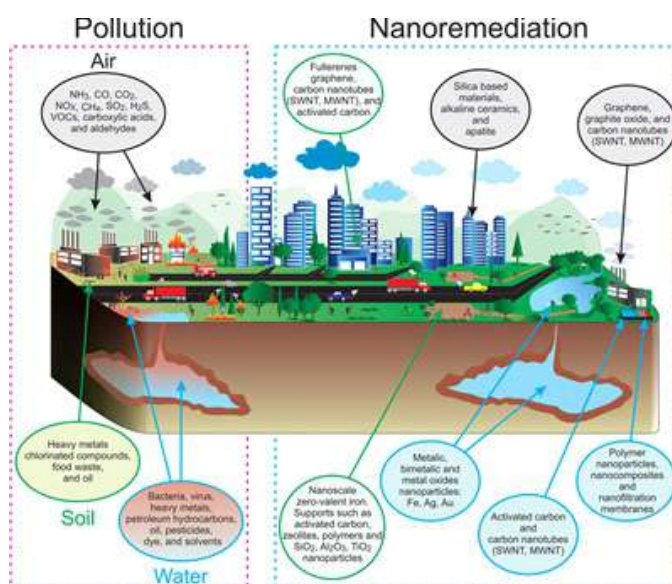
ITL Public School, Dwarka

Over the past few years, a growing range of nanoscale materials with environmental applications has been produced. For instance, at hazardous waste sites—such as those affected by oil spills or chlorinated solvents—nanoscale materials have been employed to clean up contaminated soil and groundwater. This article concentrates on the use of engineered nanoscale materials for environmental site remediation, although as previously mentioned, a wide variety of nanoscale materials are being employed across numerous sectors of science and technology. Because of their large surface areas relative to their volumes, nanoscale materials are of interest for environmental applications. This means that, compared to the same material at much larger sizes, their reactivity in chemical or biological surface mediated reactions can be greatly enhanced. They can be modified for particular uses to provide new features at the macro- or microscale that aren't found in particles of the same substance. Because of their enormous surface area to volume ratio and higher number of reactive sites, nanoscale materials can be highly reactive. However, they can also show changed reaction rates that surface area alone cannot explain. Because of these characteristics, contaminant concentrations can be rapidly reduced by increasing contact with contaminants. Furthermore, if the right coatings are applied, nanoscale materials' minute size may allow them to enter very tiny underground spaces and stay suspended in groundwater. A suitable coating may enhance pollutant reduction by enabling the particles to disperse more widely and travel farther than macro-sized particles. Applications section for further details on how nanotechnology is being used to remediate environmental damage.

Nanotechnology holds immense promise for environmental remediation, with various nanoscale materials showing potential for both in situ and ex situ applications in pollutant clean-up. Among these materials, nanoscale iron has gained significant attention and is currently being used in environmental clean-up efforts. Its

high reactivity and large surface area make it effective in degrading or sequestering contaminants in soil and water.

Beyond nanoscale iron, researchers are exploring a wide range of other nanomaterials for remediation purposes. These include titanium dioxide (TiO<sub>2</sub>), Self-Assembled Monolayers on Mesoporous Supports (SAMMS™), carbon nanotubes, ferritin, dendrimers, metalloporphyrinogens, and Sonochemical Metal Organic Frameworks (SOMS), among others. Each of these materials offers unique properties that can be leveraged for different types of pollutants and environmental conditions. The development of nanotechnology for environmental remediation typically progresses through various stages, from initial research and laboratory-scale experiments to pilot-scale testing and, eventually, full-scale implementation. Benchmarking involves evaluating the performance of these materials under controlled conditions, while pilot-scale development aims to validate their effectiveness in real-world scenarios.



TiO<sub>2</sub>, for example, is known for its photocatalytic properties, which can be harnessed to degrade organic pollutants when exposed to ultraviolet (UV) light. SAMMS™, on the other hand, consists of tailored surfaces capable of selectively adsorbing specific contaminants from water or soil. Carbon nanotubes offer high surface area and conductivity, making them suitable for adsorption and electron transfer reactions.

Ferritin, dendrimers, metalloporphyrinogens, and SOMS are also being investigated for their potential in environmental remediation. Ferritin, a protein nanoparticle, has been explored for its ability to encapsulate heavy metals, while dendrimers offer precise control over size and surface chemistry, enhancing their effectiveness in capturing pollutants. Metalloporphyrinogens and SOMS are being studied for their catalytic and adsorptive properties, respectively.

As research in nanotechnology continues to advance, these nanomaterials hold promise for addressing environmental challenges such as groundwater contamination, soil remediation, and wastewater treatment. However, it's essential to conduct thorough risk assessments and consider potential unintended consequences before widespread deployment to ensure the safe and responsible use of these technologies.

## From the Editor's Desk

Dear Readers

I welcome you to **Volume 5, Issue 1**, of the **PRAKRITI SANRAKSHAN** quarterly newsletter of STE.

The important days observed from January-March 2024 are also included in this issue.

I express my sincere thanks to all the people who have contributed informative and inspirational articles to make this newsletter successful. I want to express my profound gratitude to the President of STE, Dr. Kshipra Misra, the editorial team, and Mr. Gian Kashyap for designing this issue of **PRAKRITI SANRAKSHAN** and giving it the desired shape.

**Dr. Vaishali Mishra**

Editor STE

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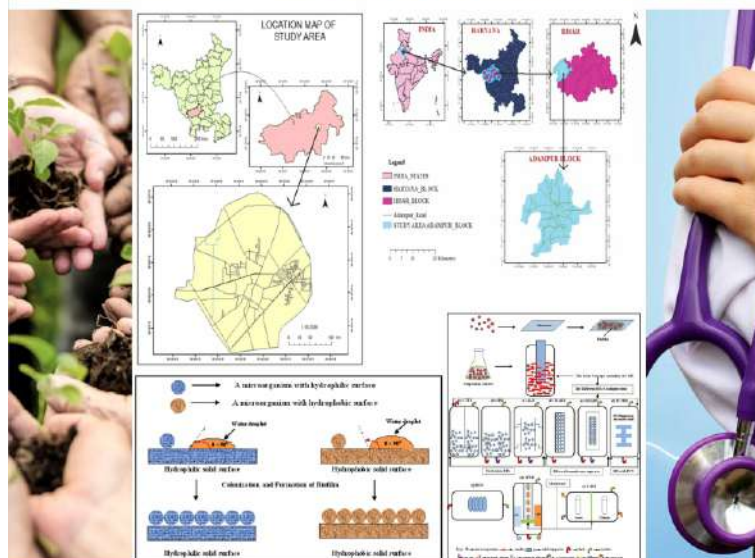
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## STE Annual Awards 2024

**(NOMINATION AND APPLICATIONS ARE INVITED)**

**LAST DATE 30<sup>th</sup> September, 2024**

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 who have contributed in different fields 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**

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**STE Meritorious Award For Excellence in Academics and Research**

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## Awards/ recognition received for DART

- Silver Medal for Innovative Technology in Anveshan Competition on 29<sup>th</sup> June, 2003 at IIM, Ahmedabad
- WATI (Women and Technology Innovation) National Award by Bhartiya Stree Shakti for innovative Technology -2004
- DRDO Spin-off Technology Award- 2007
- NRDC, GOI –Social Innovation Award-2012

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- ◆ Vidyasagar Park MWA
- ◆ Milan Samity-Hrishikesh Park
- ◆ Swami Rama Himalayan University (SRHU), Dehradun, Uttarakhand

STE is pleased to announce that the STE State chapter of Uttarakhand has been opened and is ready to start activities there. It is requested that those who want to do any programme/ seminar / conference / symposia or any other related activity under the mandate of STE are welcome to come forward and take off for the new journey of STE in the mountains.



## SAVE THE ENVIRONMENT

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Bank Name: State Bank of India

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