

A Report on

Iconic Week Celebrations
(From 4th to 10th October, 2021)

Theme: Say No to Single use plastics

under the programme of

Azadi Ka Amrit Mahotsav



✧ Submitted by ✧

Environmental Information System
(ENVIS)–Resource Partner
CSIR–National Botanical Research Institute
Lucknow

Programmes during the Iconic Week by
ENVIS-RP-NBRI, Lucknow
(From 4th to 10th October, 2021)



Distribution of Knowledge Products



Seminars at School & College



Campaign Against Single Use Plastics



Experts Interviews



Videos Messages



Demonstration of Alternatives of
Single Use Plastics



Interactive Sessions



Quiz Competition



Prize Distribution to the winners of
the Quiz

Iconic Week Celebrations

(From 4th to 10th October, 2021)

Keeping in view to phase out single use plastics by 2022 as per the directives of Govt. of India, ENVIS-RP-NBRI celebrated Iconic Week from 4th to 10th October, 2021 to avoid the “use of single use plastics” under the programme of **Azadi Ka Amrit Mahotsav**.

During the Iconic Week ENVIS-RP-NBRI organised a series of events including seminars in school, and college, preparation and dissemination the knowledge products, organize quiz competition, creation of video messages, campaign against single use plastics and public awareness.

Release of Knowledge Products (Flyers)

ENVIS-RP-NBRI has released four (4) informative flyers on different themes viz.

adverse effects of Single Use Plastics on Air, Water and Soil and Do's and Don'ts.



THEME: SAY NO TO SINGLE USE PLASTICS

How Does Plastics Cause Air Pollution?

FOUR WAYS:

- The Extraction of Plastic's Raw Material: Oil
- The Impact of the Recycling Industry on Air Quality
- Incineration of Plastic Materials
- Plastics Ability to “Off-Gas”



It takes 1,000 years for a plastic bag to degrade in a landfill. Unfortunately, the bags don't break down completely but instead photo-degrade, becoming micro-plastics that absorb toxins and continue to pollute the environment.

Dioxins settle on crops and in our waterways where they eventually enter our food and hence our bodies. These dioxins are potentially lethal persistent organic pollutants that can cause cancer and disrupt thyroid and respiratory systems.

Phthalates are chemicals that are added to plastic, which give structural qualities like flexibility and heat resistance. Unfortunately, they are also endocrine disruptors that have been linked to many health problems such as the development of lower testosterone levels, reduced female fertility, and many more. Phthalates are not chemically bound to the plastic, which means they can easily off-gas into the air and the products that we consume.

BURNING PLASTICS

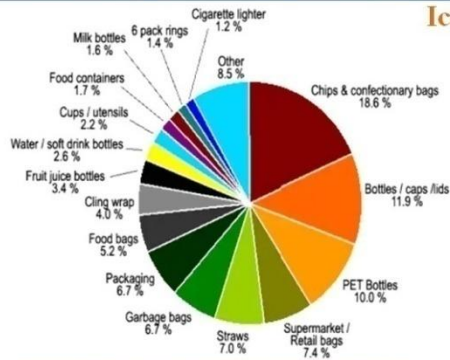
- ❑ Generates amounts of dioxins, furans, mercury and polychlorinated biphenyls (better known as BCPs) into the atmosphere, and poses a threat to vegetation, and human and animal health.
- ❑ These toxic pollutants that can persist in the environment and may contaminates the food chain.
- Modern waste incinerators reduces these toxic emissions but there are no protections when waste is burned at home or in the open.
- Plastic recycling can become a problem when it does not follow strict environmental and workforce standards.
- Many informal and formal recycling facilities in South and Southeast Asia fail to have safe working conditions and pollution control measures.

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~: Effects of Single use plastics on Air::~

Iconic Week Celebration (4th to 10th October, 2021)

Theme: Say No to Single Use Plastic



Single Use Plastic contributing to waste

- ❖ Bottles
- ❖ Plastic Bags
- ❖ Micro beads
- ❖ Fishing Gear
- ❖ Synthetic Fabrics
- ❖ Plastic Packaging
- ❖ Cigarette butts
- ❖ Straws

SOLUTIONS TO OCEAN PLASTIC POLLUTION

- Reusable Bottles
- Organic Fabrics
- Reusable Bags
- Redesigned cigarettes
- Bead-Free Cosmetics
- Non-Plastic Straws
- More sustainable fishing practices
- Alternative Packaging

Negative impacts of plastics w.r.t water

- Plastics wastes, dumped in water sources, contaminate and posing threat to freshwater community.
- Upon leaching in water, plastics can easily enter into food chain and harm animal as well as humans.
- Plastic debris clog the sewage drains and create stagnant water, which can serve as ideal habitat for mosquitoes and other parasites.
- Choked drains cause flooding during monsoon in municipal areas.
- By 2050, an estimated 99% of seabirds will have ingested plastics in their guts.

Environmental Information System – Resource Partner, National Botanical Research Institute, Lucknow

~: Effects of Single use plastics on Water: ~

Main polymers used in the production of single-use plastics

HDPE Milk bottles, freezer bags, shampoo bottles, ice cream containers	LDPE Bags, trays, containers, food packaging film	PS Cutlery, plates and cups	EPS Hot drink cups, insulated food packaging, protective packaging for fragile items
PET Bottles for water and other drinks, dispensing containers for cleaning fluids, biscuit trays	PP Microwave dishes, ice cream tubs, potato chip bags, bottle caps		

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PREVENTIVE MEASURES

- ❖ Educate consumers to make Environmental-friendly options.
- ❖ Ban on Single use plastics below 50 microns thickness.

Plastic bags and Styrofoam containers can take up to 1,000 years to decompose.

SAY NO! to SINGLE-USE PLASTIC

SINGLE USE PLASTIC EFFECTS ON SOIL

Trillions of plastic bags are being used worldwide each year.

REFUSE
REDUCE
REUSE
REPURPOSE
RECYCLE

EFFECTS

- ❖ Micro beads/Micro-plastics are solid plastic particles that typically range from 10 micrometers up to one millimeter generated from single use plastics/plastics interaction with soil microbiota affects ecosystem.
- ❖ The surfaces of tiny fragments of plastic may carry disease-causing organisms and act as a vector for diseases in the environment.
- ❖ Chlorinated plastic can release harmful chemicals into the surrounding soil, which can then seep into groundwater or other surrounding water sources, and also the ecosystem.
- ❖ Cause various disease in humans and animals.
- ❖ Contaminates the food chain.

ECONOMIC IMPACT

- ❖ It is more expensive to clean up tomorrow than to prevent plastic pollution today.
- ❖ Asia-Pacific Economic Cooperation (APEC) estimated a \$1.3 billion economic loss of marine plastics to the tourism, fishing and shipping industries alone. However, loss to agricultural sector has not evaluated yet.
- ❖ High cost of transport to centralized plant of lightweight foamed plastics due to difficulty in recycling at local plants.

SOURCES OF PLASTICS IN SOIL

- MUNICIPAL WASTE**
80% of garment fibers and 90% of cosmetics contribute plastic particles in sewage.
- AGRICULTURAL SECTOR**
 - ❖ Mulching
 - ❖ Plastic reservoir for Irrigation System
 - ❖ Green Houses
 - ❖ Silage
- MISCELLANEOUS**
Packaging Materials

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~: Effects of Single use plastics on Soil: ~

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ENVIS-RP-NBRI & CSIR-JIGYASA, Lucknow

Dos	Don'ts
Use Biodegradable Straws	Don't Use Plastic Straws
Use Reusable Water Bottles	Avoid PET Bottles
Always Use Compostable Cutlery	Don't Use Plastic Cutlery
Use Beeswax Food Wrap	Avoid Plastic Wrap and Sandwich Bags
Reusable Sandwich & Snack Bags	Products Made From Polystyrene
Use Paper Lanterns/Paper Balloons /Paper Pinwheels.	Avoid Plastic Foil Birthday Balloon
Reusable Grocery/ Produce Bags	Single Use Plastic Bags
Use Compostable Bamboo/ Neem Toothbrushes	Don't Use Plastic Toothbrushes

~: Dos and Don'ts:~

Event-1: Seminar for School Students (9th to 12th)

Place: Kendriya Vidyalaya, Cantt., Lucknow

October 07, 2021

ENVIS-RP-NBRI team visited at Kendriya Vidyalaya, Cantt., Lucknow to create awareness to avoid the use of single use plastics amongst student on October 7th, 2021. A total 82 students were registered for the event. Mr. Sunil Tripathi, Sr. Programme Officer (ENVIS-RP-NBRI)

welcomed all the participants and teachers of Kendriya Vidyalaya to become a part of the event. Mr. Tripathi also talked about different activities, publications, major goals and achievements of ENVIS-RP-NBRI.



Dr. Anju Patel, Co-coordinator, ENVIS-RP-NBRI delivered a lecture in form of power point presentation on ‘Say No to Single use plastics’.



Dr. Anju emphasised on the behavioural change in the society is one of the most important and effective tools against the elimination of single use plastics from our daily life.



An interactive session was also conducted by Dr. Pankaj Kumar Srivastava, Coordinator, ENVIS-RP-NBRI on the different aspects like the harm to use single use plastics in our health, Plastic Waste Management Act (2016), sustainable goal to eliminate single-use plastic by 2022 etc.

Dr. Vivek Srivastava, Nodal Officer, CSIR-Jigayasa, Lucknow has also sensitised students to avoid single-use plastic materials by using cloth bags instead of plastic bags. He also demonstrated alternative eco-friendly items as option to single use plastics like plates and bowls made from Arecanut Palm Leaf, small containers from bagasse, pen, pencil and pencil Boxes from craft paper etc.



Mr. Diwakar Saini, Information Officer, ENVIS-RP-NBRI has distributed ENVIS-Newsletter on the topic “*Role of Plants to Curb Plastic Pollution*” and other knowledge products focusing the adverse effect of single use plastics on air, water and soil among the students.





Photo Gallery



Event-2: Seminar for College Students (UG & PG)

Place: Mahila Post Graduate College, Aminabad, Lucknow October 08, 2021

In the series of awareness programmes to combat use of single use plastics, Team ENVIS-RP-NBRI celebrated the iconic week with Undergraduate and Postgraduate students at Mahila Post Graduate College, Aminabad, Lucknow on October 8th, 2021.



A total 107 students were registered for the event. Dr. Pallavi Dixit, Coordinator (NSS) from Mahila P.G. College, Lucknow welcomed to team ENVIS-RP-NBRI.



Dr. Anju Patel, Co-coordinator, ENVIS-RP-NBRI talked about the harm of microplastics and its presence in the human

placenta, which has raised a serious concern. Dr. Anju also talked about different activities, publications, major goals and achievements of ENVIS-RP-NBRI.



Dr. Pankaj Kumar Srivastava, Coordinator, ENVIS-RP-NBRI delivered a lecture in form of power point presentation about single-use plastics, their presence in our daily life, its adverse effects on air, soil and water, effect on seabirds, presence of plastic in food chain, economic losses in tourism, fishing and shipping industries, high cost of transportation of plastic garbage, future costs of removal of accumulated plastic litter in the environment etc.





Dr. Vivek Srivastava, Nodal Officer, CSIR-Jigayasa, Lucknow demonstrated alternative eco-friendly items as option to single use plastics like plates and bowls made from Arecanut Palm Leaf, small containers from Bagasse, pen, pencil and pencil Boxes from craft paper etc.



Mr. Diwakar Saini, Information Officer, ENVIS-RP-NBRI has distributed ENVIS-Newsletter on the topic “*Role of Plants to Curb Plastic Pollution*” and other knowledge products focusing the adverse effect of single use plastics on air, water and soil among the students.



Mr. Sunil Tripathi, Sr. Programme Officer (ENVIS-RP-NBRI) played a Quiz of 25 questions among the students in form of short questions and distributed the prizes to the winners of the quiz.





Photo Gallery



Event: 3 Campaign against single use plastics

Place: Nawab Wajiz Ali Shah Zoological Park, Lucknow

October 10, 2021

On October 9th, 2021 Team ENVIS-RP-NBRI organized a campaign against single use plastics in Nawab Wajiz Ali Shah Zoological Park, Lucknow to aware general public about the adverse effect of single use plastics in wildlife.



In a video message recorded by Team ENVIS-RP-NBRI, Mr. R.K. Singh, Director Lucknow Zoological Park said the Single use plastics have emerged as a serious environmental threat if it remains littered. The plastics get into water bodies and are carried to oceans and seas adversely impacting the health of marine ecosystems and environment.



It has direct and deadly effects on wildlife. Thousands of seabirds and sea turtles, seals and other marine mammals are killed each year after ingesting plastic or getting entangled.



In an interactive talk with Mr. Akhilesh Sharma, Deputy Ranger said that Lucknow Zoological Park has developed an institutional system to minimises the use of plastic water bottle in the premises by which they have issued a refundable coupon for each bottle entered in the park and when the visitor come back for exit, they have to submit it on exit gate failing which they have fined of Rs. 500/- per bottle.



pen, pencil and pencil Boxes from craft paper etc. Mr. Sunil Tripathi, Sr. Programme Officer and Mr. Diwakar Saini, Information Officer has distributed Do & Don't brochures, ENVIS-Newsletter on the topic “*Role of Plants to Curb Plastic Pollution*” to the visitors of the zoological park.

Dr. Anju Patel, Co-coordinator, ENVIS-RP-NBRI addressed groups of visitors (around 50) about the harm of single use plastics and its adverse effects on nature, and demonstrated option of single use plastic in the form of biodegradable plastic items viz., plates and bowls made from Arecanut Palm Leaf, small containers from bagasse,



Alternatives of Single Used Plastics displayed by ENVIS-RP-NBRI during the events



Photo Gallery



TEAM ENVIS-RP-NBRI



Prof. Saroj Kant Barik
Director, CSIR-NBRI



Dr. Pankaj Kumar Srivastava
Principal Scientist & Coordinator



Dr. Anju Patel,
Scientist & Co-coordinator



Mr. Sunil Tripathi
Senior Programme Officer



Mr. Diwakar Saini
Information Officer



End of the Report