

**Volume - I**  
**2019-20**



# **ECOVISION**



**DEPARTMENT OF ENVIRONMENTAL STUDIES**

**MATA SUNDRI COLLEGE FOR WOMEN**

**UNIVERSITY OF DELHI, DELHI-110002**



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## ***From the Principal's Desk***

### **Greetings Readers!!**

Ecovision, the first issue of annual e-magazine of Environmental Studies department kindles the imagination of our learners. I congratulate all the editorial members for the release of the first issue of the magazine. I also congratulate all the students who used various medium of expression to present their notions. As long as our ideas are expressed and thoughts sparked we can be sure of knowledge, as everything begins with an idea.



Shri Guru Granth Sahib declares that the purpose of human beings is to achieve a heavenly state and to be in synchronization with the earth and all of God's creation. It seems, however, that humans have drifted away from that ideal. It is excruciating over the fate of its dwellers and their future. Earth is in jeopardy as never before as it's lakes and rivers are being polluted, killing its marine life; lands are degraded due to anthropogenic activities. A smoky haze cloaks the cities of the biosphere. This catastrophe screams out for an instant and vital solution. The catastrophe involves going back to the basic question of the purpose of human beings in this universe and an understanding of ourselves and God's creation.

We should show some responsibility towards creation and bear in mind the needs of future generations, as well as their own current needs. Students especially women can play very crucial role in spreading the environmental awareness primarily. I realized that to take a step to spread awareness about the environment, we need to brush the basics and have awareness with some motivation. People should know and understand the basics and complexities of the environment in a simple way.

This magazine is an effort by the Ecovision team to encourage and motivate students of "Mata Sundri College for Women" through various articles, highlights of the various departmental activities and will help in spread the importance of environment and its conservation. I believe that once the children are trained in small areas, they can make use of the experience in the long run to save the environment.

*"Never doubt that a small group of thoughtful committed citizens can change the world; indeed, it is the only thing that ever has."*—Margaret Mead

Be the change!

With sincere and warm regards.

**Dr. Harpreet Kaur**  
(Principal)



## ***From the Course Coordinator's Desk***

### **Heartiest Greetings!!**

This is a wonderful effort by Dr. Uzma Nadeem and her team to bring together the college's environmental conscience in the form of an e-magazine. Each semester hundreds of students learn about the environment, its on-going degradation and the need for its conservation in the AECC course 'Environmental Studies'. Not only does the course enhance their awareness about the environment and its importance, the field trip provides an opportunity to supplement their learning with a practical observation of the environment, aloof from urban influence. Each semester ends with a new environmental awareness among students.



With her commitment and dedication, Dr. Nadeem started on this journey of giving the Environmental Studies department its very own e-magazine. She selected students across courses and years, based on their capabilities to give shape to this idea. Continued efforts by her and her team have led today to the first edition of Ecovision – the aptly named e-magazine of the Department of Environmental Studies, Mata Sundri College for Women.

The e-magazine comprises articles and poems in Hindi and English along with artwork by students from different courses, on different themes related to the environment. The Ecovision team has beautifully brought together the students' views and expressions related to the environment. I applaud the efforts and hard work by Dr. Uzma Nadeem and her team members Dr. Kavita Singh, Mr. Sudhanshu Ranjan Jha, Ms. Angira Singh, Ms. Komal Kusum, Ms. Simpi Tiwari, and Ms. Diya in the making of the inaugural issue of this e-magazine. I congratulate them on the success of their efforts and extend my best wishes to the department.

May we be blessed with further edition of Ecovision in the future!

**Dr. Jasjit Kaur**

**(Course Coordinator)**

Department of Environmental Studies



## EDITORIAL BOARD



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Chief Editor  
&  
E-magazine Designer



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Co-Editor (English)



**Sudhanshu Ranjan Jha**  
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Hindi Typist  
B.Sc. (H) Computer  
Science, 2<sup>nd</sup> Year



**Angira Singh**  
Magazine Coordinator  
B.A. (P) 3<sup>rd</sup> Year

## ***Editorial from the Chief Editor's Desk***

**Dear Readers!**

*"Progress is impossible without change, and those who cannot change their minds cannot change anything."*

*-George Bernard Shaw*

We are delighted to present our inaugural issue of our annual e-magazine "Ecovision" of Earthcon Society from the Department of Environmental Studies, Mata Sundri College for Women. The Ecovision team feels privileged in presenting this first issue.

The experts are suggesting that there is an important need to spread the awareness of environmental awareness among the student community. It is important to give the same momentum among colleges. This magazine is to be viewed as a launch pad for the young student's creative urges to blossom naturally. The enthusiastic write ups of our young writers hold the interest and admiration of the readers. This magazine is an attempt to make our budding talents give shape to their creativity. It gives me immense pleasure to ensure that this magazine has successfully accomplished its objective.



This magazine not only presents your writings and artwork by students from various courses and years, expressing their views and feelings towards the environment but also contains pictures and images within the pages that speak volumes about the enriching events held in the department throughout the year. This initiative is not only to encourage the student participants, but also to motivate them to raise environment awareness. This issue of Ecovision is dedicated to all the students who put their efforts and made all the events successful throughout the session. The editorial extends its heartfelt gratitude to our Principal **Prof. Harpreet Kaur** and course coordinator and inspiration **Dr. Jasjit Kaur** for the motivation and support.

Special appreciation to the teachers and students editors who have done their bit to give Ecovision to ensure that the magazine will stay appealing and vibrant. We are sure that efforts exhibited by our young students will surely stir the mind of the readers. The reflection of the student's creativeness and triumph is the essence of the magazine. I take the opportunity to thank all the contributors as their contribution is the reason that makes this magazine endearing with our readers.

Enjoy the Gems of **Ecovision!!**

**Dr. Uzma Nadeem**

Chief Editor & Teacher In-Charge



## *Message from Co-Editors*

It gives me immense pleasure to bring you the first issue of our departmental e-magazine. The name and fame of an institute depends on the caliber and achievements of the students and teachers. This magazine is the platform to exhibit the literary skills and innovative ideas of students along with our departmental activities at a glance.

I would like to place my gratitude and heartfelt thanks to all those who have contributed in this endeavour. Last but not the least; I am thankful to our Principal **Prof. Harpreet Kaur** and our mentor **Dr. Jasjit Kaur** for their support and encouragement. I truly, hope that the pages that follow will make an interesting read.

**Dr. Kavita Singh**

*Assistant Professor*

*Department of Environmental Studies*



I feel immense happiness in being a part of the first ever edition of this e-magazine published by the EVS department of our college. It is indeed a tremendous job worth appreciating. My special accolades go to all those who have worked behind the scene to complete this novel venture. I wish that this magazine will encourage our students to foster new ways of thinking and also help them in understanding the how's and why's involved in acting sustainably.

**Sudhanshu Ranjan Jha**

*Assistant Professor*

*Department of Environmental Studies*



## ***Student Editorial***

### **Greetings Readers!**

Welcome to the first issue of Ecovision, the e-magazine of Earthcon society from the Department of Environmental Studies, Mata Sundri College for Women. The environment plays a vital role in the sustenance of life on earth. On behalf of the Ecovision team, I gladly present you writings and artwork by students from various courses and years, expressing their views and feelings towards the environment.

The e-magazine you behold is ultimately a product of human intelligence, right from the idea to submissions to the final step. Intelligence is a boon which has brought us thus far on the road to progress with promises for more with time. Intelligence has enabled us to analyse our surroundings, develop an understanding of the environment, see how it has become vulnerable and come up with ways for its conservation.

Interestingly this very human intelligence which has shaped human life for millennia has turned out to be a curse for the environment. Right from the Neolithic age, when we started clearing land for farming, to the present day when each product that makes our lives easy requires a huge amount of resources for its production and marketing, we have exploited the environment to improve our lives. Human progress has come at the cost of the environment.

While we cannot change history, we can surely shape the future. We may not be able to change the path we have traversed, but we can certainly forge the path ahead in any direction. It is high time we pay attention to the environment and work towards conserving it. The pages ahead highlight a variety of environmental concerns and how we can contribute by doing our part.

**Komal Kusum**

*Third year, B.A. (Prog)*





# DEPARTMENT OF ENVIRONMENTAL STUDIES

## ABOUT THE DEPARTMENT

This department aims at imparting knowledge to undergraduates from all fields of study to help them understand and appreciate various concepts and issues about environment at local, regional and global levels. The course content and suggested readings draw heavily from ideas developed through interdisciplinary works, especially as the assessment includes a compulsory project to be done by every student. Apart from the projects a questionnaire-based survey was also conducted in order to investigate the students' environmental awareness and participation for the management of the environmental problems related to the college campus and their residential area.

## EARTHCON SOCIETY

**"Earthcon"** is the Environment Awareness Society of the department of Environmental Studies. The mission of the society is to create awareness among the students and public about the various environmental threats and their consequences.

This society has been set up by the college to generate awareness about environment and sustainable ways of living. Its functions include educating the students, employees and faculty about environmental concerns. Also, it strives to find opportunities for eco-friendly waste management in the college premises.

A group of college students who are concerned about the environment works for this society. The society tries to run itself as a co-operative and try to encourage students as well as the College staff about the environment and its protection by different environmental awareness activities in the campus like competition, talks, campaign, nukkad natak etc to spread awareness among masses.

# HIGHLIGHTS OF THE DEPARTMENT

(2019-2020)

## WALL GRAFFITI

Students of the department participated in the Wall Graffiti event organised by Petroleum Conservation Research Association (PCRA) which is a nodal agency under Ministry of Petroleum & Natural Gas, Govt. of India. PCRA has adopted a school “Nagam Nigam Balika Intercollege” at Mahroli in Ghaziabad under the Swachh Bharat Campaign in on 1<sup>st</sup> Aug' 2019. The main objective of the event was to raise awareness on “Fuel and Energy Conservation” among the students of the inter college.



## YOUTH SUMMIT

Our students namely Suniti Sharma, Gurmehar Kaur & Pragya Sehgal won first prize in collage making competition among 27 participating college of Delhi/NCR. Students in the “Youth Summit” held at Apeejay School of Management, Dwarka on 30<sup>th</sup> August 2019. Students participated in power point presentation, poster making and collage making competition on the topics of sustainable development.



## ENVIRONMENT FACT

**We can save 75,000 trees if we recycled the paper used on the daily run of the New York Times alone.**



## PAPER PRESENTATION (ISSES- 2019)

Students of environmental studies department presented their review research papers in the form of poster presentation in One day International Seminar on Science, Environment and Spirituality (ISSES 2019) held on 13<sup>th</sup> September 2019, organized by Eco-club, Shivaji College, and University of Delhi. Following students presented their research papers:

- + **Aastha Mendiratta**, a review research paper on the title “Environmental Changes and Mental Deterioration”.
- + **Dilpreet Kaur**, a review research paper on the title “Spirituality and Its Relationship with Sustainable Development”.



## QUIZ CUM TALK & NUKKAD NATAK ON “ OIL AND ENERGY CONSERVATION



A quiz cum talk and “Nukkad Natak” was successfully organised for our college students on 16<sup>th</sup> September 2019 on the topic “Oil & Energy Conservation” to spread awareness about Conservation activities in association with Petroleum Conservation Research Association (a nodal agency under Ministry of Petroleum & Natural Gas, Govt. of India). Lecture was delivered by Shri. Siddhartha Saran, Deputy Director of Delhi, NCR and opening notes was delivered by Shri. Naveen Gulati, Director & CRC (Northern Region), PCRA. Same event was covered on social networking sites of PCRA. The event was attended by 185 students of the

## ENVIRONMENT FACT

In the last 170 years, we added 2.4 trillion tons of Carbon Dioxide into our atmosphere. Half of this was added in the last 35 to 50 years.





## POSTER COMPETITION AND A WORKSHOP ON "WASTE MANAGEMENT"

A workshop on "Waste Management" in association with "Chintan" for our college students was held on 18<sup>th</sup> September 2019 to raise awareness for waste management in the college campus. The event was attended by students of the department. Total 63 students participated in the poster competition and 180 students attended the workshop.



## ENVIRONMENT FACT

There is more water vapor in the atmosphere than all the combined rivers on the planet.



## **“GREEN-DIWALI CAMPAIGN”**

Green Diwali Campaign was organised for the college students on 24<sup>th</sup> October 2019. The main objective of the campaign is to spread the awareness amongst the students to create a better environment by reducing air and noise pollution during Diwali.



## **FIT INDIA CYCLE DAY**

Department of Environmental Studies participated in the event “FIT INDIA CYCLE DAY” organised by “SAKSHAM” Petroleum Conservation Research Association, a nodal agency of Government of India on 19<sup>th</sup> January 2020 for all students of Delhi University at Jawaharlal Nehru Stadium, New Delhi. The main objective of the event was to spread awareness on health and environmental conservation among students of the different colleges.



## **ENVIRONMENT FACT**

**When you throw plastic bags and other plastic materials in the ocean, it kills as many as 1 million sea creatures annually.**



## ECO-INNOVATION

Department of Environmental Studies organized a competition entitled “Eco-Innovation” (Conceptual model competition for countering environmental issues) on 25<sup>th</sup> February 2020 during the annual fest “Saarang”, for all undergraduate students of Delhi University. The main objective of the event was to create awareness about the concept of sustainable development among the students.



## ENVIRONMENT FACTS

**Aluminum can be recycled continuously, as in forever. Recycling 1 aluminum can save enough energy to run our TVs for at least 3 hours. 80 trillion aluminum cans are used by humans every year.**

**A glass bottle made in our time will take more than 4,000 years to decompose.**



## ZERO PLASTIC AWARENESS

Department of Environmental Studies established a stall in Saarang 2020 on 24<sup>th</sup> -25<sup>th</sup> February 2020 under the guidance of **Dr. Jasjit Kaur**. The main objective of the event was to create zero plastic awareness by replacing plastic bags by cloth bags among teachers and students of the different colleges so that they can practically apply the same in their colleges as well at their home to counter environmental issues. The simple cloth bags were painted by students to achieve the target. It was a non-profitable awareness campaign.



## DEBATE CONTEST

Students of Department of Environmental Studies participated in the “Debate Contest” organized by National Museum of Natural History, Ministry of Environment Forest and Climate Change, Government of India organised on 27<sup>th</sup> February 2020 on the theme of “Forests and Biodiversity” for the students of Delhi /NCR. Our student “Jessica Kaur Sidhu” won the “Best Interjector” prize.





## FIELD EXCURSIONS



Field Excursions are organized where students are taken to Aravalli Biodiversity Park, Vasant Vihar, New Delhi and Yamuna Biodiversity Park, near Wazirabad, New Delhi where students are given special outdoor lectures by Principal Scientists and Nature education team officers. Students get enough opportunity to interact with the experts to Study of Different Ecosystems, Biodiversity analysis, Role in Pollution Control, Natural Resources, Population Explosion learn various ecological processes and services.



# STUDENT'S CORNER

## POEM & ARTICLES

### Our Mother Earth

This mother Earth,  
Who gives you life?  
This mother Earth,  
Heart filled with strife.

We love her not,  
Though love we should.  
Her death we plot,  
For life's "own good".

She gives us air, food and home,  
That's not enough, we humans scream,  
With greedy lust, our mouths do foam,  
With evil hopes, our eyes do gleam.

Her air we fill,  
With smoke and death.  
Ourselves we kill,  
For lack of breath.

The sea once clean,  
Now choked with waste,  
Drinking it we fear,  
Will death make haste?

The soil once pure,  
And full of life,  
Now barren sand,  
Of farmer's strife.

No longer she,  
Can stand our "love".  
Now we must flee,  
Like scattered doves.

She gave us all,  
Upto the end.  
Now we appalled,  
Our lives defend.

**Isha Bansal**  
First year, B.Com (Prog)

## **An Unpayable Debt**

Tell me you love me.  
Not through slogans and rallies or empty pledges.  
But with a small curtsy of doing justice.

Call me as all yours.  
Though not without knowing the compassion of belongingness.  
Shall I be of yours in whole essence?

Summon all peers of mankind.  
Without breaking outrageous violence in the name of protection.  
Even if it's a fight for the right visions.

Interwoven have been our roots.  
Where doom awaits on each wrongful deal mistaken.  
Never be fooled in escaping those future consequences.

Let me be the ambassador.  
Promoting security for a future filled with uncertainties.  
Technology, never a replacement to the mother environment.

For there might be no us to save us.  
It would be a price too high for us.  
An unpayable debt under our names in rust.

**Ranjitha Rajesh**  
Second year, B.A.(Prog)

## **ENVIRONMENT FACT**



**27,000 trees are cut down each day so  
we can have Toilet Paper**





# Groundwater: Not a Drop to Waste

*"When the well is dry,*

*We will know the worth of water"*

**-Benjamin Franklin**

India's groundwater usage is the highest in the world. Groundwater is one of the most important water sources in India as it accounts for 68% of all irrigation water and over 80% of rural and domestic water supplies. Groundwater supports the livelihoods of over 26 crore farmers and agricultural labourers. Wells (including dug wells, shallow tube wells and deep tube wells) provide roughly 61.6% of water for irrigation, followed by canals which provide another 24.5%.

Groundwater is depleting due to various factors, the prominent ones being frequent pumping of water from the ground without giving ample time for its replenishment, increased demand of water and limited surface water resources lead to exploitation of groundwater, water contamination as is case of pollution by landfills, septic tanks and overuse of fertilizers, subsidies on electricity and high MSP for water intensive crops, and inadequate regulation of groundwater extraction.

According to Niti Aayog, twenty-one Indian cities including Delhi, Chennai, and Bengaluru will run out of ground water in 2020. The Aayog's composite waste management index noted that "seventy- one percent of our water resources are contaminated." Several reports, including the Central Water Commission's "Water and Water Related Statistics 2019", have

highlighted the poor state of India's groundwater aquifers. If the current trends continue, in twenty years about 60% of India's aquifers will be in critical condition. These are clear signs of the devastating condition of water resources in India.

"Sooner or later everyone sits down to a banquet of consequences." So, the consequences of groundwater depletion are adverse effect on food supply, groundwater depletion will force us to pump water from deeper within the earth and even more resources will be used to dig deeper, large bodies of water will become shallow from groundwater depletion, saltwater contamination of water bodies, and lack of groundwater will harm biodiversity.

"No one can go back and start a new beginning, but anyone can start today and make a new ending." We can take certain steps to conserve groundwater. An example is to use native plants in your landscape. They look great and don't need much water and fertilizers. Another is to use fewer chemicals around your home and yard. Don't dump them into the ground. Slight changes in our daily life such as shutting off the water while brushing and being constantly vigilant about leaks and promptly getting them fixed. There is a need to treat water as a common resource rather than as private property to prevent over-exploitation.

So, step forward to make a new ending.

**Tanushree Singh**

First year, B.A. (Hons.) Political Science

## ENVIRONMENT FACT

**Only 1% of our planet's water supply can be used. 97% is ocean water and 2% is frozen solid in the Arctic, for now.**



# Nature

In trees tall, in grasses small  
In birds that fly, in insects that cry  
In the sun so bright, in the clouds so light  
In the animals that prowl and prance, in the wind that makes trees dance

All around us, in all that surrounds us  
We didn't find her, rather nature found us

The swish of the breeze as it passes the trees  
The cries of insects, animals, and birds  
Pitter-patter of raindrops as they fall onto the earth  
Various sounds that by night and day are heard

Blue sky, yellow sun, and clouds that are white  
Green leaves, brown stems, and colourful flowers bright  
Trees, shrubs, insects, birds, and animals  
Of various colours, shapes, and sizes are visible

There is a lot that we cannot see, neither touch, hear, nor feel  
Much remains to be found, the boundaries of which know no bounds  
Each thing discovered leads to scope for more  
As we venture into the Unknown it grows and grows

To the left and right, in front and behind  
It spreads far and wide  
With immense depth and immense height  
And boundaries that are infinite

And thus nature has two sides  
One we see, hear, and feel  
The other, forever, to remain a mystery

**Komal Kusum**

Third year, B.A.(Prog)



## Lifeline of Living Things

All living things that live on this earth come under the environment. Whether they live on land or in water, they are part of the environment. The environment includes air, water, sunlight, along with plants and animals. Moreover, the earth is the only planet in the universe known to support life. The environment can be understood as a blanket that keeps life on the planet safe and sound. But we can estimate some of its importance that can help us understand its crucially. It plays a vital role in keeping living things healthy. Likewise, it maintains the ecological balance that keeps check of life on earth. It provides food, shelter, air, and fulfils all the human needs whether big or small. Moreover, the entire life support of humans depends wholly on environmental factors. In addition, it also helps in maintaining various life cycles on earth. Most importantly, our environment is the source of natural beauty and is necessary for maintaining physical and mental health.

The environment gives us countless benefits that we can't repay our entire life. The forest and trees filter the air and absorb harmful gases. Plants purify water, reduce the chances of flooding, maintain natural balance and many others. Moreover, the environment keeps a close check on the planet's ecology and ecological processes. It regulates the vital systems essential for the ecosystem. The environment regulates various natural cycles which help in maintaining the natural balance between living things and

The non-living components of the environment. Disturbance in environment can ultimately affect the life cycle of humans and other living beings. The environment provides us with fertile land, water, air, livestock and many essential things for survival leading to flourishing of life.

Human activities are the major cause of environmental degradation because most of them harm the environment in some way. Humans have caused grave environmental degradation in the form of pollution, defective environmental policies, contamination with chemicals, emissions of greenhouse gases, global warming, ozone depletion, etc. The overuse of natural resources will create a situation in the future where there won't be any resources for consumption. And the most basic necessity of living, air will get so polluted that humans will have to use bottled oxygen for breathing. Above all, increasing human activity is exerting more pressure on the surface of the earth which is causing many disasters in an unnatural form. Also, we are using the natural resources at such a pace that within a few years they will vanish from the earth.

To conclude, we can say that it is the environment that is keeping us alive without which survival will be tough.

**Sneha Deshwal**

First year, B.A. (Hons.) English

### ENVIRONMENT FACT

**Our planet gains inhabitants numbering to 77 million people a year. An estimated 50,000 species inhabiting our tropical forests become extinct annually. That's an average of 137 species a day.**

## Chennai Water Crisis

*"There is a water crisis today. But the crisis is not about having too little water to satisfy our needs.*

*It is a crisis of managing water so badly that billions of people - and the environment - suffer badly."*

With these words I would like to start my piece. Water is the basic necessity of every human being. But water scarcity is a major issue that is rising very rapidly in modern-day India. In addition, water is one of the most misused commodities that we still waste. It is the central point of our lives but not the central point of our focus. The problem has become so severe that in many states' groundwater has almost dried up and people have to depend on water supply from other sources.

Tamil Nadu's state capital Chennai is facing severe water crisis due to lack of water governance. According to the Central Water Commission, there is a 41% rainfall deficit this year till mid-June. The city has four main reservoirs Poondi, Cholavaram, Puzhal and Sembarambakkam which are at a storage level of less than 1%. There is about 80% drop in frequency as well as quantity of water supplied to the households. That residents are now given minimum piped water and tanker supplies totalling a third of the installed capacity of 1,494 million litres a day, that too mainly from desalination plants, faraway lakes and farm wells, is proof of the neglect of water governance. Chennai's Information Technology corridor alone requires around 3 crore litres of water per day, only half of its requirement is being fulfilled at present.

There are multiple reasons behind the water crisis. The main is drying water bodies. Chennai and its adjoining district Kancheepuram and

Tiruvallur are together known as lake districts. These districts together had more than 6000 water bodies like lakes, ponds and reservoirs that maintained water table throughout the year. At present only 3896 water bodies have survived, Chennai city alone had lost 150 such water bodies. Another factor is the topography of the city. Chennai doesn't have a prominent river channel to feed its need. Anthropogenic factors play a major role in the crisis. Being an Industrial hub with multiple industrial corridors in and around the city, Chennai has failed to protect its water resources.

Keeping the reasons and the effects of the crisis in mind we should take small steps to prevent such situations. Some of the steps are sustainable water management, pollution control, sewage management; rainwater harvesting and recycled wastewater also allow reducing scarcity and easing pressures on groundwater and other natural water bodies. Groundwater recharge, that allows water moving from surface water to groundwater, is a well-known process to prevent water scarcity. Awareness and education regarding the crisis and steps we can take to curb it is the first step towards ensuring that future generations will have sufficient water to live.

**Priya Tyagi**

First Year, B. Sc. (Hons.) Mathematics

## ENVIRONMENT FACT

**Rainforests are cut down at a rate of 100 acres per minute.**



## Can We Say No To Plastics?

The word plastic is derived from the Greek word *plastikos* meaning "capable of being shaped or molded". Much like its nature, plastic has molded the entire world from the smallest things like lunch boxes and earplugs, to big machines, and now plastics are everywhere.

Thermoplastics are the plastics that, when heated, do not undergo chemical change in their composition and so can be molded again and again. Thermosetting polymers, can melt and take shape only once: after they have solidified, they stay solid. In the thermosetting process, a chemical reaction occurs which is, by its nature, irreversible. Evidently, plastics have entered our homes and lives in even the smallest possible commodity. Plastics are water proof and thus make ideal materials for objects of daily use, packaging and transport. Not just this, plastics have also entered places where they don't belong for instance, in food, fodder and even in oceans. Animals, both on land and in water are choking on plastic waste. Pure plastics have low toxicity due to their insolubility in water and because they are biochemically inert, due to their large molecular weight. Plastic products contain a variety of additives, some of which can be toxic. Being non-biodegradable, plastic is piling up like a mountain of toxicity. We are well informed about the harm caused by plastics to the environment. And so, every other summit or conference concerning the same states one idea: SAY NO TO PLASTICS. But is it that easy?

We are aware of how highly we are dependent on plastics. Apart from daily use, plastics are of great economic value. The Indian plastics market is comprised of around 25,000 companies and employs 3 million people. The domestic capacity for polymer production was 5.72m tons in 2009. The State of Gujarat in Western India is the leading plastics processing hub and accounts for the largest number of plastics manufacturers, with over 5,000 plastics firms. India is a developing country. The growth of our industries is important to us. An abrupt ban on plastics will

have numerous consequences which we may generally fail to think about. Such a ban would shut down many factories and companies, taking away thousands of jobs. The dilemma thus remains. A country like ours, requires a growing industry but not at the cost of our environment. What can be done?

Instead of putting an abrupt ban on plastics, it would be beneficial if we dispose them in a smart and efficient manner. For instance, in the south of India, most service lanes are made up of concrete mixed with plastic. Having a strong resistance to water, plastic makes the roads perfect for areas with high rainfall. Thus, making the roads durable. Such ways of efficient disposal of plastics will help decrease the amount of piling plastic waste. Moreover, as far as the industries are concerned, recent researchers have found ways to produce biodegradable plastics. Biodegradable plastics are plastics that degrade, or break down, upon exposure to: sunlight or ultra-violet radiation, water or dampness, bacteria, enzymes or wind abrasion. In some instances, rodent, pest, or insect attack can also be considered as forms of biodegradation or environmental degradation. Some modes of degradation require that the plastic be exposed at the surface (aerobic), whereas other modes will only be effective if certain conditions exist in landfill or composting systems (anaerobic). Some companies produce biodegradable additives, to enhance biodegradation. Plastic can have starch powder added as a filler to allow it to degrade more easily, but this still does not lead to the complete breaking down of the plastic. Some researchers have genetically engineered bacteria to synthesize completely biodegradable plastics, such as Biopol; however, these are expensive.

We, for one, can make efforts to decrease our dependence on plastics, and be careful with how we dispose them. When we complain about a cow eating plastic, we need to remember that we're the ones who put it there.

**Adhya Joshi**, First year, B.A. (Hons.)Philosophy



## Sand Clock of Existence

In the era of modern technology and innovations, we are struggling to keep the fundamental balance of our planet intact. Human actions and intentions indirectly direct towards the loss of uncountable innocent lives every year. From wildfires in the Amazon and Australia to the rising sea level in Antarctica, we are collectively facing the biggest issue in the history of humanity as it threatens our basic existence. There has always been a constant lack of awareness and responsibility towards our duty for earth and together we lead to the doomsday. Despite all the time that has lapsed in the sand clock of existence, there is always a hope to turn it around. Respecting the efforts made by multiple diversified organizations, governments and activists over the past years for reckoning the responsibility of humans. The Millennial development goals by the United Nations Organisation, being one of the many policies made, becomes the most reliant and effective measure. It is time, we direct our domestic policies and technological advancements towards the environmental issues faced every second that goes by. We have to start acting now before it's too late.

**Ekisha Mehrotra**

First Year, B.A. (Prog)



## Rejuvenation from the Environment

While going back home today I was very tired, exhausted to the extent that it was hard to walk. I saw a tree and sat under it. As I sat, I started feeling relaxed and refreshed. All my tiredness turned into energy as if the blowing wind, those leaves took them away. Trust me, nature; the environment has all this positivity and power to make us comfortable and happy. Why don't we revert to nature by keeping it happy?

Plant trees, go green and grow green.  
Save Environment, Save Nature

**Prarthna Singh**

Second year, B.A.(Prog)



## ENVIRONMENT FACT

The world's oldest trees are more than 4,600 years old.



## **LATENT MESSAGE**

Buildings, roads, electronic devices, poles, vehicles  
Signs of progress we see all around us  
A reminder of how far we have come  
A souvenir of what all we have done  
An indicator of the distance we have travelled  
A mark of the secrets we have unravelled  
An inspiration to move forward  
To work harder and build something better  
To find out more and use it to improve our lives  
And let the things of today be added to our archives

They also give a latent message, a warning we don't see  
A warning crucial to all of humanity, not just you or me  
They symbolise the resources we have carelessly used  
With no thought about whether they renew  
A reminder of all that we have destroyed  
And nature that we continue to exploit  
An indication of the cost of our progress  
The downside of the road on which we tread  
The signs of this warning have started to spread  
It is high time we changed our ways  
Or we'll become part of bygone days

**Komal Kusum,**

Third year, B.A. (Prog)

## **ENVIRONMENT FACT**

**Our oceans have an average depth of 12,400 feet. This means that most of the living things on our planet live in total darkness**



## Protect the Ozone Layer – The Mission Goes On

*“Earth without ozone is like a house without roof.”*

Ozone (O<sub>3</sub>) is a natural gas, an allotrope of oxygen (O<sub>2</sub>) consisting of 3 atoms of oxygen (O<sub>2</sub>+ O) bound together in a non-linear bond. These O<sub>3</sub> molecules form the ozone layer. The Ozone Layer absorbs 97-99% of Sun's UV light and maintains the ozone-oxygen cycle. It is harmful at ground level (troposphere) but in stratosphere, it plays a vital role in the protection of all living creatures by preventing the harmful ultraviolet radiations from entering into the troposphere.

*“Act as a whole to prevent the hole.”*

A UN Study “Scientific Assessment of Ozone Depletion: 2018” has shown that the ozone layer is recovering at a rate of 1-3% per decade. The “1985, Vienna Convention for the Protection of Ozone Layer” was an international agreement in which UN members recognized the importance of the stratospheric ozone layer. “1987, The Montreal Protocol”, stipulates that, production and consumption of compounds that deplete the ozone in the stratosphere – (CFCs, Halons, CCl<sub>4</sub>) is to be phased out by 2000 and that of methyl chloroform by 2005 as they deplete the stratospheric ozone layer which shields the planet from detrimental UV-B radiations from the sun. China has been illegally emitting CFC-11; the banned ozone depleting chemical – according to the Research published in the Journal ‘Nature’ recently. The adoption of “2016 Kigali Amendment” to the Montreal Protocol will phase down the production and consumption of some HFCs (hydro-fluoro carbons) and avoid much of the projected global temperature increase and associated climate change. “The goal is to achieve 80% reduction in HFC consumption by 2047.”

*“Every ozone hole is a threat to our soul.”*

Decrease in the quantity of ozone tends to increase the penetration of solar UV-B radiation into the Earth's lower atmosphere; it leads to eye diseases, skin cancer, infectious diseases; affects the psychological and development processes of plants; changes the composition of forest and grassland species; affects both orientation mechanism and motility in phytoplankton resulting in reduced survival rates among them; decreases reproductive capacity and impair larval development of aquatic ecosystem; affects terrestrial and aquatic biogeochemical cycles; causes mutation to occur in the genetic material of organisms.

Focusing upon the recent condition, the Antarctic Ozone hole is recovering; severe ozone depletion in the polar region has been avoided despite the increase in global total emission of CFC-11; Northern hemisphere and polar region are scheduled to heal completely by 2030s, 2050s and 2060s respectively.

India is the first country in the world to develop a document on a cooling action plan. India has been on the forefront in promoting global efforts to prevent depletion of the Ozone layer. India signed and ratified the “Vienna Convention for the Protection of Ozone layer in 1991” and the “Montreal Protocol on substance that deplete the Ozone layer in 1992.” On Oct 15, 2016, with the US leadership, 197 countries including India adopted Kigali amendment. India announced to freeze the consumption of HFC in 2028. “ODS phase out programme” got successfully implemented in the country. Initiatives are being undertaken for up scaling of one lakh refrigeration and air conditioning servicing technicians in collaboration with “Ministry of skill development and Entrepreneurship” under Pradhan Mantri Kaushal Vikas Yojana – Skill India Mission.



The integration of topics on HCFC phase out and energy efficiency in architectural curriculum will help the future architects to introduce energy efficient and ozone friendly materials in the construction of buildings. This will help not only in protection of the ozone layer, but also reduce energy consumption in the building sector, which is one of the significant consumers of electricity in urban areas. With such kind of initiatives to protect ozone layer, The Mission Goes On Last, but not the least we must "Get into the ZONE to protect the OZONE."

**Mansi Jain**

Second year, B.A. (Hons.) Political Science

### "पर्यावरण बचाना है"

खतरे में है वन जीवन।

बचाओ पर्यावरण॥

वन में रहते जीव है कभी न उन्हें सताओ।

पर्यावरण बचाओ कई बीमारियाँ भगाओ॥

मिट्टी; जल; वायु; सभी प्रदूषित है यही मनुष्य ने किया है।

बचाओ पर्यावरण यही समय कोई मांग है॥

खतरों में न डालो अपना व भविष्य की पीढ़ी का जीवन पेड़ न काटो।

पर्यावरण से तो है मनुष्य का जीवन॥

वन बहुत कीमती है बसते है वहा जीवन है, उन्हें न उजाड़ते है।

पर्यावरण को स्वच्छ बनाते है॥

किया मनुष्य ने अपनी सारी जरूरतों को पूरा है।

हुआ प्रदूषित पर्यावरण सारा है॥

प्रदूषण दूर भगाना है।

पर्यावरण बचाना है॥

**Sangam**

Third year, B.A. (Hons.) Political Science

## ENVIRONMENT FACT

Landfills are composed of 35% packaging materials

धरती की अब यही पुकार,  
प्लास्टिक मुक्त करो हर हाल।

नहीं फैकना नदी में कूड़ा।  
वायु प्रदूषित भी करती है।

पेड़ नष्ट हो रहे है सब।  
पूरा धरती का जल है।

## ENVIRONMENT FACT

Plastic is forever. It doesn't biodegrade and goes back to nature. It

## ENVIRONMENT FACT

The Ozone Layer "Hole" which is 29 million square kilometers is expected to be fully healed in the next 55 years. This is due to the worldwide banning of chlorofluorocarbon and hydro fluorocarbon.

## "प्रकृति"

ये प्रकृति शायद कुछ कहना चाहती है हमसे,  
ये धूँआँ भरी हवाओं की सरसराहट,  
ये कटते पेड़ों की घबराहट,  
ये समुंदर की लहरों से प्लास्टिक का शोर,  
ये केमिकल की बारिश से परेशान मोर,  
कुछ कहना चाहते हैं हमसे,  
ये प्रकृति शायद कुछ कहना चाहती है हमसे॥  
ये ढलती चाँदनी रात,  
ये तारों की झिलमिलाती बरसात,  
ये मुरझाए हुए सुंदर फूल,  
ये उड़ती हुई धूल,  
कुछ कहना चाहते हैं हमसे,  
ये प्रकृति शायद कुछ कहना चाहती है हमसे॥  
ये नदियों के पानी का कचरा,  
ये मौसम के बिगड़ते हालात,  
ये पर्वत की पिघलती चोटियाँ,  
कुछ कहना चाहते हैं हमसे,  
ये प्रकृति शायद कुछ कहना चाहती है हमसे॥  
अब तो ठहर जाओ,  
खुद में बदलाव लाओ,  
अब तो समझो प्रकृति के इस इशारे को,  
ये प्रकृति शायद कुछ कहना चाहती है हमसे॥  
ये प्रकृति शायद कुछ कहना चाहती है हमसे॥

Sneha Deshwal

First Year, B.A. (Hons.) English

म्यता औ



प्लास्टिक मानव जीवन का अहम हिस्सा बन चुका है। प्लास्टिक का आविष्कार लगभग 1907 में हुआ जबसे मनुष्य इस पर आश्रित होते गए। पिछली कई शताब्दी में प्लास्टिक ने इंसान को कई तरह से लाभ पहुंचाया है तो कई स्तरों पर बेहद नुकसान भी पहुंचाया है। इसका प्रयोग अमीर - गरीब सभी करते हैं। प्रयोग किए जाने वाले प्लास्टिक उत्पाद जैसे- पानी की बोतलें, बर्तन, प्लास्टिक के कैंरी बैग, अनगिनत घरेलू प्लास्टिक के सामान हम इस्तेमाल करने लगे हैं। यह गंदहीन, जल्दी से न गलने वाला, ठोस, टिकाऊ और सस्ता होता है, इसलिए मानव इसकी ओर ज़्यादा आकर्षित होते हैं। परन्तु यह मानव जीवन के पर्यावरण का सर्वनाश करने वाला बन गया है।

#### प्लास्टिक उत्पादों का प्रभाव:-

वैज्ञानिकों के अनुसार साधारण प्लास्टिक को सड़ने में भी लगभग पाँच सौ वर्ष लग जाते हैं। सहज - सरल उपलब्ध होने के कारण इसका इस्तेमाल इसके जहरीलेपन को नज़रअंदाज़ करके किया जाता है। दुनिया में इसका महज पाँच में से एक हिस्से का ही रीसाइक्लिंग हो पाता है और इस तरह इसका 80 प्रतिशत हिस्सा समुद्र में आ रहा है जिसके कारण समुद्री जीव - जंतु प्लास्टिक के कारण असमय मौत का शिकार बन रहे हैं। इसके अतिरिक्त समुद्र, नदियों और झीलों का जल कई तरह के प्रदूषणों से ग्रस्त हो गया। कस्बों और गांवों के कुओं व नहरों का जल भी प्लास्टिक के कारण प्रदूषित हो गया। इससे कई प्रकार की बीमारियों से ग्रामीण और कस्बाई लोग ग्रस्त हो गए हैं।

#### प्लास्टिक प्रदूषण और रोग:-

औद्योगिक और घरेलू क्षेत्रों में प्लास्टिक का उपयोग इतना अधिक बढ़ गया है कि इसके बिना कोई कार्य संभव नहीं दिखाई पड़ता है। 'यूज एंड थ्रो' की संस्कृति के कारण प्लास्टिक अनेक बीमारियों का कारण बन गया है। नए शोध के अनुसार प्लास्टिक से बने बर्तन में गर्म पेयों और खाद्यों के उपयोग से इसमें मौजूद हानिकारक केमिकल डाइऑक्सीन लेड, कैडमियम आदि खाद्य पदार्थों में घुलकर हमारे शरीर में पहुंच जाते हैं। जिससे पेट, सिर, फेफड़ों और आँख से संबंधित समस्याएँ पैदा हो जाती हैं।

#### प्लास्टिक प्रदूषण से मुक्ति में सरकार की पहल:-

प्लास्टिक प्रदूषण से मुक्ति पाने की दिशा में दुनियाभर में अनेक शोध और कार्य किए जा रहे हैं। इस कचरे का रीसाइक्लिंग करने का कार्य भी दुनिया की कुछ कंपनियाँ कर रही हैं। यही नहीं इस समस्या को खत्म करने के लिए केंद्रीय सरकार ने विशेष तरह का कानून 1999 में बनाया। यह कानून प्लास्टिक मैन्युफैक्चर सेल एंड यूसेज रूल्स 1999 में बनाया गया। यह कानून बाज़ार में बिकने वाले सिंगल यूज पॉलीथीन थैलों को पूरी तरह बाज़ार से बाहर करने के लिए इसके आकार और इन्हें तैयार करने वाली सामग्री की मोटाई तय की गई।

#### हमारा दायित्व:-

विश्व की अनेक चुनौतियों में कचरा प्रबंधन एक बड़ी चुनौती के रूप में हमारे सामने विद्यमान है। भारत के महानगरों में जिसमें दिल्ली, मुंबई, कोलकाता और चेन्नई शामिल हैं। ऐसे में हर व्यक्ति का फ़र्ज बनता है कि वह प्लास्टिक सहित दूसरे तरह के कचरों को कम करने में अपनी भूमिका समझे। तथा एक व्यक्ति का कर्तव्य हो कि वह दूसरों में भी जागरूकता फैलाए तथा जितना ही सके हम प्लास्टिक से बनी चीज़ों का प्रयोग ना करें। इस तरह हम कचरा प्रबंधन में अपना फ़र्ज निभा सकते हैं।

#### Renu

Second Year, B. A. (Hons.) History

## ENVIRONMENT FACT

**Agriculture uses up 70% of our global freshwater. It goes up to 90% in fast developing countries**

पर्यावरण प्रकृति एक ही सिक्के के दो पहलू हैं। "परा + आवरण" यानी हमारे चारों ओर जो भी वस्तुएं हैं, शक्तियाँ जो हमारे जीवन को प्रभावित करती हैं, वे सभी पर्यावरण बनाती हैं। जल, हवा, जंगल, जमीन, सूर्य का प्रकाश, रात का अंधकार और अन्य जीव जंतु सभी हमारे पर्यावरण के भिन्न तथा अभिन्न अंग हैं। जीवित और मृत को जोड़ने का काम सूर्य की शक्ति करती है। प्रकृति को हमें जीने के लिए स्वच्छ वायु, पीने के लिए साफ़ शीतल जल और खाने के लिए कंद-मूल-फल उपलब्ध कराती रहती है, वहीं अब संकट में हैं। लगभग 100-150 साल पहले धरती पर घने जंगल थे, कल-कल बहती साफ़ - साफ़; सुंदर-सुंदर नदियाँ थी, निर्मल झील व पावन झरने थे। हमारे जंगल तरह - तरह के जीव जंतुओं से आबाद थे और तो और जंगल का राजा शेर भी तब इनमें निवास करता था। आज ये सब ढूँढ़े नहीं मिलते, नदियों को मनुष्य जातियों ने पूरी तरह प्रदूषित कर दी है। राष्ट्रीय नदी का दर्जा प्राप्त "गंगा" भी इससे अछूती नहीं है। झील झरने सूख रहे हैं। जंगलों से पेड़ और वन्य जीव विलुप्त होते जा रहे हैं। शहरों की हवा तो बहुत ही प्रदूषित कर दी गई है, जिसमें हम सभी का योगदान है। शहरी हवा में सल्फर

डाइऑक्साइड, नाइट्रोजन ऑक्साइड जैसी जहरीली गैसों घुली रहती है। कार्बन मोनोऑक्साइड और कार्बन डाइऑक्साइड जैसी गैसों की मात्रा हाइड्रोकार्बन के साथ बढ़ रही है। वहीं खतरनाक ओजोन के भी वायुमंडल में बढ़ने के संकेत हैं। जिस मिट्टी में हम खेते हैं; जो मिट्टी खेत और खलिहान में है, खेल का मैदान है; वह तरह-तरह के कीटनाशकों को एवं अन्य रसायनों के अनियंत्रित प्रयोग से प्रदूषित हो चुकी है तथा खेतों की अच्छी फसलों के लिए कृषकों के द्वारा रासायनिक पदार्थों का अंधाधुंध उपयोग करने से पंजाब तथा हरियाणा की हज़ारों हेक्टेयर जमीन बंजर हो चुकी है। यहां तक की हमारे कई सांस्कृतिक लौहार भी पर्यावरणीय प्रदूषण में अपना सहयोग देते हैं। जैसे दीपावली पर पटाखों का अत्यंत उपयोग तथा होली पर लकड़ियों का उपयोग होलिका दहन के लिए उपयोग किया जाता है। सवाल यह है कि इन पर्यावरणीय समस्याओं का क्या कोई हल है? क्या हमारी सोच में बदलाव की जरूरत है? दरअसल प्रकृति को लेकर हमारी सोच में ही खोट है। तमाम प्राकृतिक संसाधनों को हम धन के स्रोत के रूप में देखते हैं और अपने स्वार्थ के खातिर उसका अंधाधुंध दोहन करते हैं। हम यह नहीं सोचते हैं कि हमारी अगली पीढ़ी को स्वच्छ व शांत पर्यावरण मिलेगा या नहीं। पर्यावरण बदलने से भुखमरी का खतरा मंडराने लगा है। दुनिया की जानी मानी संस्था ऑक्सफैम का कहना है कि पर्यावरण में हो रहे बदलावों के कारण ऐसी भुखमरी फैल सकती है, जो इस सदी की सबसे बड़ी मानवीय त्रासदी साबित होगी। इस अंतरराष्ट्रीय चैरिटी की नई रिपोर्ट के अनुसार पर्यावरण में बदलाव गरीबी और विकास से जुड़े हर मुद्दे पर प्रभाव डाल रहा है। बढ़ते कार्बन- डाइऑक्साइड ने वायुमंडल में ऑक्सीजन को कम कर दिया है। वायुमंडलीय परिवर्तन को "ग्लोबल वार्मिंग" का नाम दिया गया है। भारत और चीन सहित कई देशों में भूमि कम्पन, बाढ़, तूफान, भूस्खलन, सूखा, अतिवृष्टि, भूमि की धड़कन के साथ ग्लेशियरों का पिघलना आदि प्राकृतिक आपदाओं के संकेत के रूप में भविष्यदर्शन है। हमारी सांस्कृतिक ऐतिहासिक धरोहरों को नुकसान पहुंच सकता है और हम पर्यटन के रूप में विकसित स्थलों से वंचित हो सकते हैं तथा इन सभी प्राकृतिक आपदाओं के तथा प्रदूषण के बढ़ते प्रभाव के कारण न केवल शाकाहारी बल्कि मांसाहारी दोनों प्रभावित होंगे क्योंकि न केवल पेड़-पौधे; फसलें बल्कि नगरों व महानगरों में से जलीय जीवन; सभी पशु-पक्षियों का खात्मा हो रहा है। विश्व-स्वास्थ्य संगठन(WHO) की रिपोर्ट में वैश्विक जलवायु परिवर्तन से होने वाली अनेक गंभीर बीमारियों के चलते सभी देशों को स्वास्थ्य बजट में कम से कम 20% वृद्धि करने की सलाह दी है अन्यथा सूखते जल स्रोत; सूखती धरती, घटती ऑक्सीजन के साथ घटते धरती के प्रमुख तत्व, बढ़ता प्रदूषण, बढ़ती गर्मी, पिघलते ग्लेशियरों के कारण बिन बुलाए मेहमान की तरह प्रकट होती प्राकृतिक आपदाएं मानव सभ्यता को कब विलुप्त कर देंगी, पता नहीं चल पाएगा। आवश्यकता है वैश्विक स्तर पर पूर्ण निष्ठा एवं समर्पण के साथ पर्यावरण संतुलन का एकनिष्ठ भाव निहित हो। तथा सभी लोगों में पर्यावरण के प्रति जागरूकता तथा उदारता व संवेदनशीलता बढ़ानी होगी लोगों में पर्यावरण के प्रति प्रेम व सदभावनाओं का विकास करने की आवश्यकता है तथा इसकी जिम्मेदारी विश्व के हर व्यक्ति की है। चाहे वह युवा हो; चाहे वह भूढ़ा हो; नर हो; या नारी हो!

**Simpi Tiwari**

Second Year, B.A. (Hons.) History

## **"शहरों का पर्यावरण भी काफी समृद्ध है"**

पर्यावरण एक प्रभावशाली और महत्वपूर्ण बिंदु है मनुष्य जीवन का, जो हमारे दैनिक जीवन में प्रयोग होता है। जैसा की हम जानते हैं की वर्तमान समय में प्रदूषण की वजह से पृथ्वी का भार बढ़ता जा रहा है तथा इसके साथ इसका दुष्प्रभाव मानव के स्वास्थ्य पर पड़ रहा है। इस समय प्रदूषण को कम करने में काफी देशों ने अपनी सहभागिता दिखाई है और काफी हद तक उसे काम भी किया है। जैसे चीन का शंघाई राज्य जो प्रदूषण से ग्रस्त था। अब वहां काफी हद तक वातावरण साफ हुआ है। भारत में भी काफी छेत्र है जो प्रदूषित है। कुछ रिपोर्टों के अनुसार दिल्ली, मुंबई, कोलकाता आदि शहरों को प्रदूषण का कारण मानते हैं परन्तु केवल शहर हैं नहीं, ग्रामीण क्षेत्र भी दूषित वातावरण को बढ़ावा दे रहे हैं।

आज के आधुनिक युग में सभी आधुनिकता की ओर अग्रसर हो रहे हैं परन्तु कुछ लोगों का ध्यान केवल शहरों पर केन्द्रित है, जो पूर्ण सत्य नहीं है, इस आधुनिकरण से ग्रामीण क्षेत्र भी मशीनों का प्रयोग कर रहे हैं जो पर्यावरण के लिए हानिकारक है। जलवायु परिवर्तन और जैव विविधता की क्षति का करीबी संबंध दुनिया में कई क्षेत्रों में तेजी से हो रहे शहरीकरण से है। हम बहुत मुश्किल दौर में जी रहे हैं; इंटरगवरनमेंटल पैनल ऑन क्लाइमेट चेंज (IPCC) की विशेष रिपोर्ट ने चेताया है कि ग्लोबल वार्मिंग की वजह से वर्ष 2030 से 2052 के बीच तापमान में 1.5 डिग्री सेल्सियस की बढ़ोतरी होगी, तो मानव और प्रकृति के लिए खतरा है।

इस पर्यावरण को संतुलन में करने के लिए शहरों में भी काफी प्रभावशाली कदम उठाए हैं। भारतीय शहर जैसे मुंबई, कोलकाता और चेन्नई जैव विविधता से रहित नहीं हैं। ईट, डामर और कंक्रीट से बने इन शहरों का विकास उपजाऊ तटीय क्षेत्र और इलाकों में हुआ था जो जैव विविधता से समृद्ध थे। कई भारतीय शहर उनके निकटवर्ती ग्रामीण क्षेत्रों की तुलना में अधिक हरे-भरे हैं। ये पेड़ वहां के आम लोगों द्वारा लगाए गए हैं, जो उन शहरों की समृद्ध से वातावरण के तापमान पर भी प्रभाव पड़ रहा है, तथा वहां कुछ हद तक संतुलित हैं। हम न केवल भारतीय शहरों की पारिस्थितिक विविधता से बल्कि इस



बात से भी अंजान हैं कि शहरी क्षेत्रों की प्रकृति मानव स्वास्थ्य और खुशहाली के लिए कितनी महत्वपूर्ण है। शहरी योजनाकार, आर्किटेक्ट्स और बिल्डर्स इमारतों व अन्य निर्माण कार्यों को ही डिजाइन करने पर ध्यान केंद्रित करते हैं। दूसरी ओर परिस्थिकिवाद शहरों की जैव विविधता को अनदेखा करके केवल वनों और संरक्षित क्षेत्रों पर ध्यान केंद्रित करते हैं। शहरी जैव विविधता हमें भोजन, ऊर्जा, और जड़ी-बूटियां उपलब्ध कराती है, जो गरीब लोगों के जीवन के लिए महत्वपूर्ण हैं। हमारे जीवन में प्रकृति की भूमिका काफी महत्वपूर्ण है जो इन भौतिक वस्तुओं से कहीं आगे जाती है। शहरों में रहने वाले बच्चे घर की चारदीवारी के अंदर रहकर अपनी आभासी दुनिया में बड़े होते हैं, जिससे उनके व्यवहार और मानसिक व्यवस्था पर बुरा असर होता है। प्राकृति अतिसक्रियता और एकाग्रता की कमी के विकार से उभरने में बहुत मदद करती हैं, इससे बच्चों और उनके पालकों दोनों को राहत मिलती है। नेचर डेफिसिट डिऑर्डर एक प्रकार का मानसिक विकार होता है जो प्रकृति से दूरी बनने से पैदा होता है। पेड़, चाहे एक पेड़ हो, के करीब रहकर भी शहरी जीवन शैली की समस्या को कम कर सकते हैं। अध्ययन दर्शाते हैं कि प्रकृति की गोद में रहने से खुशहाली बढ़ती है, न सिर्फ बीमारियों से जल्दी उबरने में मदद मिलती है, बल्कि हम शांत, खुश और तनावमुक्त रहते हैं। इस है लाभ को ध्यान में रखते हुए कई अस्पतालों ने अपने आसपास हरियाली बनाए रखने की कोशिश की है, जिससे मरीजों का स्वास्थ्य जल्द ठीक हो सके।

शहरी लोग कुछ विशेष प्रकार के पेड़ों से आजीवन रिश्ता बनाकर रखते हैं। यह उनकी बचपन की यादों के वजह से हो सकता है या अन्य महत्व की वजह से भी। किसी पार्क या प्राकृतिक स्थान के नजदीक रहने से जीवन शैली से जुड़ी समस्याएं जैसे मोटापा, डायबिटीज़ और ब्लड प्रेशर को कम करने में मदद मिलती है। पेड़ सामुदायिक सम्मेलन के लिए भी आवश्यक है और जगह उपलब्ध कराते हैं। खासकर भारत में आमतौर पर यह देखा जाता है कि गाँव में जब बैठक का आयोजन करना हो तब नीम और पीपल जैसे वृक्ष की छाया में चबूतरे पर बैठकर लोग बातें करते हैं। बच्चों के लिए क्रिकेट खेलने और महिलाओं के लिए पेड़ों की छाया बैठकर गप्पे मारने की जगह बन जाती है। बुजुर्ग लोग भी पेड़ों की छाया में दोपहर की झपकी भी ले लेते थे। उन शहरों में जहां लोग अपने पड़ोसियों से भी मेल जोल नहीं रखते, वहां एक पेड़ भी मेल मिलाप और सामूहिक क्रियाकलाप का स्थान बन जाता है।

यह देखकर आश्चर्य होता है और नियोजन की कलाई खुलती है कि दिल्ली और बेंगलुरु जैसे बड़े शहर एक तरफ तो बड़े राजमार्गों पर लगे पेड़ों की अंधाधुंध कटाई में लगे हैं, वहीं दूसरी तरफ प्रदूषण कम करने के लिए जगह-जगह स्मोक स्क़बर टॉवर लगवा रहे हैं। हमें तत्काल इस पर शोध करने की आवश्यकता है कि कौनसी प्रजाती के पेड़ प्रदूषण व ताप प्रतिरोधी हैं और भविष्य में शहरी योजनाओं के लिए आवश्यक हैं। एक महत्वपूर्ण शोध 'पेड़ों के आपस में होने वाले संचार' को लेकर हो रहा है। जिससे पता चलता है कि पेड़ भी हवा में कुछ केमिकल छोड़कर और जमीन के नीचे जड़ों के नेटवर्क से जुड़कर आपस में संचार स्थापित करते हैं। वैज्ञानिकों ने इसे वुड वाइड वेब नाम दिया है। जो मातृ वृक्ष किसी जंगल या उपवन का सबसे पुराना पेड़ है, वह आप पास के पेड़ों के लिए महत्वपूर्ण है। वह पेड़ परस्पर आनुवंशिक रूप से जुड़े होते हैं और एक दूसरे की मदद करते हैं, जो एक क्रिटिकल सेंट्रल नोड का काम करता है। भारतीय शहरों में मातृ वृक्ष सबसे पुराने पेड़ होंगे। लिहाजा इन पर सबसे अधिक खतरा है क्योंकि योजनाकार उन्हें ये कहकर कटवा देते हैं कि अति प्रौढ़ और वयस्क हो चुके हैं और लोगों और उनकी संपत्ति के लिए नुकसानदायक हैं। हमें ऐसे पेड़ों की रक्षा करना चाहिए क्योंकि ये मृत वृक्ष अपने आप पास के अन्य वृक्षों को प्रवाहित करते हैं। इसलिए इनकी सुरक्षा आवश्यक है।

अगर शहरी परिवेश से इन मृत वृक्षों को हटा दिया जाए तो क्या परिणाम होंगे? और परस्पर संबद्ध नेटवर्क पर क्या असर पड़ेगा? इसका हमारे पास फिलहाल कोई जवाब नहीं है क्योंकि आजतक इस सवाल पर कोई शोध या अध्ययन देश में नहीं हुआ है। इसलिए ये महत्वपूर्ण है कि हमें इन पेड़ अनुसंधानों पर शोध करें तथा सामाजिक बहस का आयोजन करें जो लोगों को ओर अधिक जागरूक करेगा। भारत में ऐसे अनुसंधान की भारी कमी है जैसे 2008 से 2017 के बीच हुए 1000 शोधपत्रों में से सिर्फ 10 पेपर ही भारत से थे। शोध आवश्यक है लेकिन वह अपने आप में पर्याप्त नहीं है इसलिए आवश्यक है कि शहरों में रहने वाले लोग इसपर संवाद करें क्योंकि ये हमारी ज़िम्मेदारी है।

दुनिया भर में पेड़ों के बारे में लोकप्रिय किताबें लिखने का चलन फिर से उभरा है। जैसे डी. जे. हारकेल की 'दी सॉन्ग ऑफ ट्रीज: स्टोरीज फ्रॉम नेचर्स ग्रेट कनेक्टर्स (पेंग्विन वाइकिंग 2017 पी. वोहलेवेन 'दी लाइफ ऑफ ट्रीज, व्हाट दे फील। हमें भी भारतीय जन, बच्चों और बड़ों के लिए संरक्षण, विलुप्ति और जलवायु परिवर्तन जैसे पर्यावरणीय व पारिस्थितिकी संबंधी विभिन्न विविध मुद्दों पर पुस्तकों की आवश्यकता है। इससे व्यक्ति, स्कूल, कॉलेज और संस्थान भी नागरिक विज्ञान और जन विज्ञान में सम्मिलित हो सकेंगे। जैसे एच. नगेन्द्र और एस. मंदोली लिखित सिटीज एंड कैनोपीज: ट्रीज इन इंडियन सिटीज (पेंग्विन रैंडम हाउस इंडिया, दिल्ली 2019) शहरी पारिस्थितिकी पर सहयोगी अनुसंधान की भी आवश्यकता है ताकि हम यह समझ पाएं कि लोगों के हितों को ध्यान में रखते हुए अपने शहरों की पारिस्थितिकी दृष्टि से डिजाइन कैसे करें।



**Natasha**

Second Year, B.A. (Hons.) History

## ENVIRONMENT FACT

**25% of the bottled water you buy is really municipal tap water.**



**The painting symbolizes mother earth's face which is blue yet cracked indicating that greenery on earth is declining due to indiscriminate deforestation and some places are experiencing droughts while others floods as serious repercussions.**

**Gursheel Kaur**

First Year, B.A. (Hons.) Psychology

**The painting showcases the two sides of our earth; one side depicts the green and happy earth whereas the other side shows the devastated and sad earth after the deforestation.**

**Shweta Sharma**

First Year, B.A. (Prog.)





**This artwork shows that how deforestation is related to other life forms and cutting one tree will cost the death of thousands of life forms.**

**Chetna**

First Year, B.Sc. (Hons.)  
Mathematics



**This artwork represents how individual people are responsible for the clean and green environment. It suggests be a part of the solution not the pollution to achieve the goal of Clean India.**

**Priti**

First Year, B.Sc. (Hons.)  
Mathematics





## BEST POSTERS MADE BY STUDENTS



**Amandeep Kaur**  
First Year, B.A. (Prog.)



**Parneet Kaur**  
First Year, B.A. (Hons.) Psychology





**Zuha Zaki**

First Year, B.A. (Hons.) Political Science



**Dashmeet Kaur**  
Third Year, B.Com. (Hons.)





# WINNERS OF THE POSTER COMPETITION



**First Prize**

**PARNEET KAUR**

First Year, B.A. (Hons.)  
Psychology



**Second Prize**

**MEGHA RAWAT**

First Year, B.Com. (Prog.)



**Second Prize**

**ZUHA ZAKI**

First Year, B.A. (Hons.)  
Political Science



**Third Prize**

**DASHMEET KAUR**

Third Year, B.Com. (Hons.)



**Consolation Prize**

**PRATIBHA KASHYAP**

Third Year, B.A. (Hons.)  
Political Science



**Saving our planet, lifting people out of poverty, advancing economic growth, these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security and women's empowerment. Solutions to one problem must be solutions for all. – Ban Ki-moon**



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