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COP 26

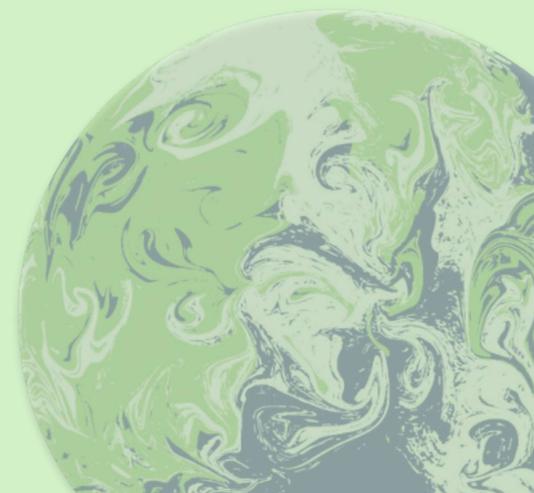
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Geodiversity & Impact on Environment

Ministry of Environment, Forest & Climate Change, Govt. of India

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EDITORIAL

Dear Readers,

It gives me immense pleasure in presenting before you this issue of the ENVIS Newsletter dedicated to COP26. COP26 is the 26th Conference of the parties to the United Nations Framework Convention on Climate Change (UNFCCC). COP26 also served as CMA3 to the Paris agreement and CMP16 to the Kyoto protocol.

This was the first COP during the times of pandemic. Hosted by the UK in partnership with Italy. Duration of the COP26 was from 31st October to 12th November 2021, though the pre-conference events started much before. Venue for the main COP26 event was the Scottish Event Campus (SEC), Glasgow Scotland UK. President for the event was UK Cabinet Minister Mr. Alok Sharma.

194 parties participated in the conference and one observer State was also present. Around 1725 observer organisations actively participated. Total number of participants were 23351. India was represented by 130 dignitaries including Shri Narendra Modi, Hon'ble Prime Minister of India.

Four major goals set by COP26:-

- 1. Net Zero and 1.5 degrees** - Countries have to reach net-zero carbon emissions by 2050 and keep 1.5 degrees within reach. Countries will need to accelerate the phase-out of coal, encourage investment in renewables, speed up the switch to electric vehicles and curtail deforestation.
- 2. Protect communities and natural habitats** – States are encouraged to protect and restore ecosystems and build defenses, warning systems and resilient infrastructures.
- 3. Mobilise finance**- Nations were asked to mobilise \$100bn per year in climate finance for poorer nations.
- 4. Collaboration** – Parties to collaborate and finalise the Paris Rulebook to realise the Paris Agreement.

COP26 was a golden opportunity to achieve transformative policy and action on climate change. New and modified Nationally Determined Contributions (NDCs) were submitted by 153 nations. This issue of the newsletter covers COP26; Objectives, Goals and Success, India's commitment at COP26, Expectations and Challenges.

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COP26: Objectives, Goals and Success

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Abstract

The United Nations Framework Convention on Climate Change (UNFCCC) held its 26th Conference of the Parties (COP26) in Glasgow, Scotland, from October 31 to November 12, 2021. COPs are conducted yearly, except for 2020, and provide a forum for world leaders to discuss climate policy, objectives, and the next steps that it must take to decrease global emissions. They also offer a platform for various side events and conversations attended by scientists, industry executives, media representatives, members of the public, and politicians. The discussions between global leaders during COPs may be contentious, and they usually begin weeks in advance. COP26 is no exception, with most countries having already updated their climate objectives in advance of the global gathering. This article will go through some of the vital debate themes at COP26, as well as the EU's new aims and expected stances.

Introduction

“Energy Day at COP26 brought countries together to focus on how to speed up the global energy transition towards net zero. It’s encouraging to see more pledges being made, under the leadership of the UK COP Presidency, to reduce planet-warming emissions and increase financing for clean energy”. : Fatih Birol, Executive Director, International Energy Agency (<https://ukcop26.org>).

COP26 momentum has been developing for longer than a typical COP, with the event's schedule being set back a whole year due to Covid-19. Even without the postponement, COP26 was one of the most crucial, with essential decisions from COP25 being pushed back by delegates who decided to wait instead of sign off on a weakened agreement.

A total of 153 nations have submitted new or modified emissions targets known as Nationally Determined Contributions (NDCs), encompassing around 80% of global greenhouse gas emissions. As a result, the UN estimates that greenhouse gas emissions will be 5 billion tonnes lower by 2030, more than ten years lower than current UK emissions. Not all nations will achieve net zero by the middle of the century, and countries have admitted that it must enhance development. All committed to examining and improving their present emissions objectives to 2030 in 2022 as part of the Glasgow Climate Pact. Countries decided to convene an annual high-level gathering on 2030 ambition, and they formed a new work program on mitigation ambition. The Glasgow Climate Pact also encourages long-term solutions and emphasizes keeping them current.

This entails phasing out coal power, stopping and reversing deforestation, hastening the transition to electric cars, and lowering methane emissions. (<https://ukcop26.org>).

Taking a Closer Look at the Paris Agreement on Climate Change

The Paris Climate Agreement is a legal document of the global pact on climate change established during COP21 in Paris by 196 Parties. Its objective is to keep global warming below 2 degrees Celsius, ideally 1.5 degrees Celsius, relative to pre-industrial norms. It would examine the pact for the first time at COP26, and nations will show how they have met their national objectives. Countries will be required to explain what they have done and to outline their ambitious 2030 emissions reduction plans that fit with achieving net zero emissions by 2050. The parties also want to agree on a timetable for their following commitments (e.g., every five years). (UNFCCC, 2021).

Climate financing aims to assist developing nations in mitigating and adapting to climate change. The Paris Agreement emphasized economically developed countries' commitments to contribute financial resources to help developing countries reduce their emissions. Countries in the global north release more per capita, but they are also the ones that have caused and gained the most from the industrialization that has resulted in climate change. As a result, the notion of "shared but differentiated responsibility and respective capacities" was developed, as was climate financing. Although they pledged to mobilize \$100 billion yearly to fund climate-related initiatives in

the global south, it has yet to be fulfilled.

EU's COP26 goals

While identifying the result of the COP discussions is challenging, the European Commission, Parliament, and Council have all agreed that more significant climate action is required. The EU will presumably pressure less ambitious nations at the COP to do more by laying out their climate pledges and priorities. In the same way, when confronted with the commitments of more ambitious countries, EU lawmakers may feel compelled to boost their duties or modify their objectives. The European Parliament has emphasized the importance of strong international norms to manage international carbon trading. The Parliament seeks legislation to prohibit nations from double counting their points and depending on Kyoto protocol measures. It also stated that the Clean Development Mechanism, which permits states to build greenhouse gas emission-reduction initiatives in other countries and claim the savings as part of their own efforts, should be phased down urgently.

The EU has raised its climate goal to decrease greenhouse gas emissions by at least 55% below 1990 levels by 2030. It is believed that this rise may encourage other nations to follow suit, providing policymakers and investors with more confidence. The EU will also demand that climate objectives be revised every five years at COP26. This short period, perhaps, will inspire all countries to be more sensitive to research and produce sociological, economic, and technical developments more rapidly.

The EU has pledged to contribute \$4 billion to its yearly climate financing contribution of \$25 billion. European finance ministers have urged other northern nations to contribute more to the \$100 billion climate funding objective set by 2020.

It might be challenging to obtain a ticket to the COP's "Blue Zone" (where the discussions occur). Representatives of Convention Parties and Observer States (e.g., national representatives), members of the press and media, and representatives of Observer Organizations are all given seats. Most scientists with access to the COP's Blue Zone do so as Observer Organizations. Obtaining Observer Organization accreditation for your organization is a time-consuming yet straightforward procedure. Although the application process for COP27 has already ended, it may still be a possible option for COP28 (in 2023).

However, there were a few subjects on which the Parties had such strong disagreements that they could not reach an agreement at past COPs. We reconciled our conflicts in COP26 and agreed:

- Article 6's three sections include voluntary collaboration, a new carbon crediting method, and non-market measures.
- The complete tables for the Enhanced Transparency Framework so that everyone uses the same technique for tracking and disclosing their emissions, support, and action.

At COP26, the UK has established four goals that it must meet:

- Mitigation: "By mid-century, secure worldwide net-zero and maintain 1.5 degrees within reach."
- Adaptation: "Adapt to safeguard natural ecosystems and populations." "Mobilize finance," says the finance department.
- Collaboration: "Let's work together to achieve our goals."

The Forest, Agriculture, and Commodity Commerce (FACT) Dialogue was founded in February 2021 by the United Kingdom and Indonesia, bringing primary producers and consumers of agricultural commodities to conserve forests while supporting development and trade. At COP26, 28 countries, including Indonesia, Colombia, Brazil, Ghana, the EU, the United Kingdom, and the United States, launched the FACT Roadmap. Pledging to collaborate to advance sustainable production and trade and laying out actions to incentivize sustainability, support smallholder farmers, improve supply chain transparency, and drive innovation. (<https://ukcop26.org>)

Indian Perspective

India's traditional viewpoint on climate change agreements has been based on the claim that global warming is caused by the atmospheric concentrations of greenhouse gases (GHGs). In the atmosphere, and because this investment is mainly due to the activities of developed countries as they are industrialized, the burden of reducing emissions should fall primarily on them.

India has contributed relatively little to the world stock of GHGs present per capita energy usage is barely a third of the global average. Climate justice demands that we not be forced to cut emissions since it would interfere with our development goals. For the first time, all parties, including developing nations, committed to adopting mitigation measures in the form of Intended Nationally Determined Contributions (INDCs). India's INDCs include: (i) reducing the emissions intensity of GDP by 33 to 35 percent between 2005 and 2030; (ii) increasing the share of non-fossil fuel-based electricity generation capacity to 40 percent by 2030; and (iii) increasing land under forests to create an additional carbon sink of 2.5 to 3 Gt CO₂ equivalent by 2030. There was no pledge to cut emissions, but it indicated that they accepted some responsibility for limiting the rising pace of emissions.

The fact that the INDCs agreed was voluntary and not regulated to assure accomplishment of the global warming target was a significant weakness of the Paris Agreement. In reality, it understood that they were insufficient even to keep global warming below 2°C, but it was purposefully determined to "ratchet up" duties at following meetings. That time has finally arrived.

India has achieved significant headway in its attempts to separate economic development from GHG emissions. India's gross domestic product emission intensity (GDP) decreased by 24 percent between 2005 and 2016 according to the third Biennial Report submitted to the United Nations Framework Convention on Climate Change (UNFCCC) in February 2021, achieving its

voluntary goal of reducing emission intensity of GDP by 20-25 percent from 2005 levels, well ahead of the target year of 2020. Having a net-zero aim for the entire economy will be difficult. Given that the great majority of India's population's development objectives have yet to be satisfied, India must adopt a net-zero aim to support its development aspirations. Over half of the country's population relies on climate-sensitive industries for a living, making India one of the most vulnerable countries to climate change's effects. A detailed analysis of a net-zero transition's related short- and long-term socio-economic implications is required. Flooding, heat waves, droughts, water scarcity, excessive precipitation, and the numerous complex interdependencies amongst physical dangers are among India's most serious climate concerns till 2050. Increased risk of vector-borne diseases due to rising temperatures, food, and nutrition security, and loss of livelihood are all examples of this complex interdependence at issue.

Nationalized Policy Action for Climate Change and Carbon Budget -For reaffirming its place at COP26:

Act, React and Interact (ARI): open window access platform – a suggestion to the government for better outreach and capacity building as Business entities, PPPs, Institutions, Research Organizations, governing councils, civil societies, educational and scientific researchers can all float their data in the portal. For this, the government can issue a per se notification dated so-and-so requesting the groups mentioned above' data about so-and-so. Multiple data will be computed in one go, with access to real-time information of

location, area, sector-specific contributions, and temperature, as with NAAQ real-time information.

A Climate and Energy Research Unit (CERU): it can reflect space-age commitments, contributions comparatives of our performance at COP, achieved goals and energy losses and emissions reductions schemes and success ratios and non-achievable goals – this will allow India to be a sincere, scientifically ethical, and transparent nation in its climate and energy commitments. INDCs linkage or synergy with UN SDGs is something India has failed to implement fully. Multiple goals will become applicable and doable due to a single emphasis, and they will be started right away.

On November 27, 2020, MoEFCC, Government of India, Environment Minister Honourable Shri Prakash Javdekar, in the first climate portal, stated that India has already met its pre-2020 climate goals. Before 2020, India's climate objectives must include local, regional, area, and sector targets. When we say climate commitment is achieved in total, the losses and tangible benefits of certified emission reductions will show a large gap. Because climate change is more about weather patterns, any commitment we make in terms of NAPs and below a particular degree will not accept the obligation on the global market.

As a result, a suggestion to the government is to include stock exchange inputs in the climate budget. This will allow India to set the "First ever Carbon budget" allocation and co-create and trade-off these with countries and banks and provide support to multilateral agencies and financial markets. This will allow the circular

economy to be discussed in a budgetary atmosphere in parliament for access, allocation, trade-offs, and savings. Why wait for the COVID 19 Pandemic to occur before allocating financial resources to deal with a medical emergency?

Government budget policy recommendations:

Carbon budget in parliament- Exemptions buildings that choose climate positive and energy-efficient materials to be exempted from taxes paid by developers at the time of land valuation and development up to 2.7 percent on the overall cost infused, inclusions, carbon tax be paid by buyers and renters as embodied carbon is being utilized – as on date maintenance, electricity bills, property tax, and gas bill are produced – a suggested carbon budget in parliament.

Carbon Bonds: compilation (take a look at the various stock exchange indices and sector performance and devise a framework formula to generate bonds), Carbon tax added or billed for products/FMCGs (consumers willing to pay may not like this step, but in this case, SGST can be reduced to help ease the consumer mindset and mentality of buying in). Why pay SGST when CGST should suffice? (SGST some part can be added to CGST and the overall concept of SGST be scrapped).

Scheme: Residential complexes, societies, estates, and townships - Carbon tax for residential communities be budgeted with slabs per tonne of waste generated at the source level. The municipalities per day shall be entitled to take a slabbed decided tonne of waste, and if the quantity

exceeds, a fine be levied on the society, and we can pay incentives to reduce it. Regardless of the amount of waste produced, every society must be required to pay a carbon tax or, in this case, a waste tax, with the funds collected being used by MoEFCC for waste disposal. It will already empower states armies with funds collected from the carbon or waste tax that will be levelled on the societies. It may apply the same principle to energy-saving products and infrastructure.

Carbon tax on a vehicle purchase: A mandated tax on vehicle purchase should be framed so that carbon emissions are generated throughout the life cycle of the buying from purchase to sale/resale. And discard, energy and fuel costs are incurred. Reducing the purchase of multiple cars, bikes, or scooters that are not required should lessen the burden on transportation infrastructure and air/carbon emissions equivalents.

The Motor Vehicle Act be changed, and the tax reform for vehicles act, as revised by notice, be included, including the tax of 0.7 percent. Vehicles that use green fuel – CNG-enabled and battery-powered – will be excluded from this tax up to 0.3 percent, allowing residents to use greener fuels in their vehicles while simultaneously encouraging citizens to use public transportation and limiting individual vehicle purchases. Slab change in parliament for how many cars and or bikes a small family and a large family can have; for example, a family of four should ideally have either a vehicle or a motorcycle, but not two automobiles. (Pimpalkhute,2020).

Conclusion

Countries have taken significant steps on capacity building and technology transfer at COP26. Understanding the importance of capacity building, we launched the COP26 Catalyst for Climate Action to bring together important stakeholders to make proposals to tackle capacity building concerns in adaptation, financing, carbon markets, and reporting. From the viewpoint of developing countries and many civil society groups, significant faith has not been established to foster global solidarity, notably in financial flows for adaptation and loss and damage. These challenges will only grow in prominence, and it will require much more to meet the urgent requirements of climate-vulnerable countries.

By the time COP 26 reaches Glasgow, UK, in November 2021, a climate budget has been framed and passed via parliament. Climate bonds should be associated with stock exchanges, and listed firms should be required to demonstrate their commitment, which should reflect in stock exchange performance. The NAPCC mission-based financial allocation, which is done under several missions, should be converted into a climate budget that is not included in the yearly budget but is ESG inclusive. Acceptance of this proposed dossier would allow the development of a tangible framework with thorough methodology, tools, benchmarks, and scenarios – including financial allocation, climate risk, and de-risking – ranging from local synergies to nationally decided contributions—a commitment portal with explicit benchmarking to position India as a global low-carbon economic leader.

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PANCHAMRIT - India's Commitment At COP 26

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Abstract

It is believed that the existence of planet earth occurred nearly 4.5 billion years ago, while life on earth appeared nearly half a billion years after its formation. Since then different forms of life have existed like bacteria, fungi, plants, animals, etc. When we trace evolutionary history, it is observed that there existed different mass extinctions of species in the pre-human era. The reason for those mass extinctions was due to natural calamities. But the recent 6th era of mass extinction is primarily due to human activities like deforestation, which is causing species extinction at a much faster rate due to drastic climate change. Climate change is also affecting the global economy. As a result, countries have decided to set common and individual targets to tackle the situation of climate change under the broad framework of UNFCCC(United Nations Framework Convention on Climate Change) and COP(Conference of Parties). So this article will help us to understand the evolution of COP and issues, measures India and the world have adopted to tackle the situation of climate change through COP26.

Keywords-Climate Change, UNFCCC, COP

Introduction

The Conference Of Parties (COP) is a decision making body and an annual gathering of member countries under the broad framework of UNFCCC(United Nations Framework Convention on Climate Change). The UNFCCC which was effective from March 1994, is an international environmental treaty that aims towards stabilization of Greenhouse Gas (GHG) concentration in the atmosphere through combating dangerous anthropogenic (human) activities causing climate change. The 1st meeting of COP took place in 1995 in Berlin (Germany), while the 26th meeting of COP was scheduled in the year 2020 but due to the COVID-19 pandemic took place in the year 2021 at Glasgow(The United Kingdom).

2. The important COP outcomes are:-

2.1. COP 3 (The Kyoto Protocol)

Adopted in the year 1997 in Kyoto, Japan, with the aim to fight global warming by reducing greenhouse gas concentration in the atmosphere. The protocol targets the limits of Greenhouse Gas emission.

2.2. COP 8 (The Delhi Ministerial Declaration)

It was the first COP meeting held in India and emphasized the transfer of technology from developed to developing countries to minimize the impact of climate change.

2.3. COP 11/CMP 1

Took place in 2005 in Montreal, Canada. Also served as the first Meeting of the Parties (CMP 1). It was an agreement to extend the life of the Kyoto Protocol beyond its expiry date of 2012 and further regulate Greenhouse Gas emissions. It was referred to as a "map for the future" by Canada's environmental minister.

2.4. COP 21/CMP 11(The Paris Agreement)

Took place in 2015 in Paris, France. The goal was to limit global warming to well below 2 degrees Celsius, compared to the pre-industrial level and most preferably to 1.5 degrees Celsius.

(Source:- COP1-COP25 <http://downtoearth.org.in>)

2.5. COP 26 (The Glasgow Climate Pact)

It was scheduled for the year 2020 but due to the ongoing pandemic of COVID-19, it was rescheduled for 2021 at Glasgow, The United Kingdom.

Under the Paris agreement 2015, the countries agreed to update their plan or emission reduction targets or their Nationally Determined Contribution(NDC), after every 5 years to limit the temperature increase to 1.5 degrees Celsius, so COP26 was the opportunity to update their plan, but till now we are unable to fulfil those demands. And if things continue with the same effect, it will cause devastating effects.

COP 26 was a 2-week conference from 31 Oct to 12 Nov 2021 which have proposed the following goals to mitigate the ill effects of climate change due to anthropogenic activities:-

2.5.1. Mitigation to secure global net-zero carbon emission by 2050 and limit the temperature increase to 1.5-degree

COP 26 has asked countries to come up with a plan till 2030 in order to reach the target of global

net-zero by 2050. So this can be achieved by accelerating the phase-out of coal, reducing deforestation(as we know The Amazon Rainforest, which is known as the lungs of the planet are being cleared at a much faster rate), renewable energy sources like wind energy can be one of the alternatives of coal, reduced use of petroleum products like petrol by promoting electric vehicles. Note:-First-ever time coal and fossil fuel subsidies are included in COP. Around 39 countries decides to end overseas financing of fossil fuels and the majority of other countries decided to end coal financing.

2.5.2. Protection of vulnerable communities and natural habitats

This can be done by construction of such infrastructure which is climate-resistant so that communities are less affected by the devastating effects of climate change like flooding, soil erosion. Protecting local communities will help in protecting local habitats.

2.5.3. Finance mobilization.

It is estimated that around \$100 billion of the fund is needed to transfer from developed to developing nations to achieve net-zero carbon emission, promoting green technology, restoring the ecosystem, protection of vulnerable communities, etc.

2.5.4. Collaborative efforts

Every country and people within the countries, different government agencies, the non-government organizations must work together to achieve targets. This is important because climate change is a global issue that will affect each and every person.

It was also asked to finalize the Paris Agreement termed as the Paris Rule-book of COP 21 in order to achieve the limit of temperature increase to 1.5

degrees Celsius.(Source:- <http://ukcop26.org>)

3. India's commitments at COP 26

India is home to around 17% of the world population with a global carbon emission share of 5%. India's commitments to the world in tackling climate change-related issues are popularized as "Panchamrit".

3.1. Panchamrit or five commitments are:

3.1.1. Net-zero carbon emission by 2070.

3.1.2. Installation of 500 Giga-watt renewable energy capacity by 2030.

3.1.3. Reduction of the carbon intensity of GDP by 45% till 2030.

3.1.4. 50% contribution of renewable energy in total energy consumed by 2030.

3.1.5. Carbon emission to be reduced by 1 billion tonnes by 2030.

3.2. Other Multifacet initiatives in India to mitigate climate change are:

3.2.1. Indian railways target of achieving net-zero emission by 2030; Which includes full electrification of broad-gauge routes by 2023.

3.2.2. Reducing 40 billion tonnes of emission through the use of LEDs.

3.2.3. Importance of National Hydrogen Mission for net-zero carbon emission.

India has asked to popularize India's efforts such as Jal Jeevan Mission, Swachh Bharat Mission at the global level. India has urged countries to promote the sustainable mode of living that is practised in some traditional communities via school curriculum.

As today's modern lifestyle is having a major role in climate change, it is necessary to adopt a movement called " *LIFE-Lifestyle for Environment*" at the global level so that at an individual level we can help to tackle climate change. India has asked developed countries to raise their ambition in

climate finance and tech transfer. (Source: Speech of PM Narendra Modi at Glasgow Climate Change Conference).

4. Conclusion

COP is an annual program that provides world leaders to meet under one umbrella. We must provide collaborative efforts to tackle the problem of climate change. The developed nations must ensure climate finance to developing nations. COP 26 is a crucial moment to act against climate change and implement the Paris Agreement or the Paris Rulebook. We have to promote a sustainable mode of living. As an individual, we should contribute to achieving the target of net-zero carbon emission via "LIFE". We should adopt 3R's concept of Reduce, Reuse, Recycle. There is a need to ensure transparency, accountability in process reporting about carbon emissions to achieve our goals. Financial support to vulnerable communities will ensure to tackle the situation. The need for an hour is that we must focus on making agriculture resilient. We have to turn our ambition into action. Accelerate the transition from coal to green power, restore the ecosystem, raise our climate ambition via science and technology.

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An excerpt from the speech of PM Narendra Modi at Glasgow Climate Change Conference 2021(COP26)

COP 26 goals, available at <http://ukcop26.org>

Article-Find all the information & News about COP from COP1-COP25DownToEarth, available at <http://downtoearth.org.in>



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COP26 and Commitment of India

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Abstract

Since the last few decades, climate change has been one of the most significant subjects of discussion and the United Nations has been playing a crucial role in bringing together almost every country on earth for global climate summits- called 'Conference of the Parties' or 'COPs'. COPs are organised under the UNFCCC (*United Nations Framework Convention of Climate Change*) treaty in which agreements are made in these conferences to tackle climate change. Along with the assessment of emission inventories submitted by the nations, another key objective of COP is to review their national communications. In the year 2021, the 26th meeting of conference, COP26, was organised in which 197 nations participated with the target to limit the warming to 1.5 degrees, reduce global emissions to 50% by 2030 thereby, reaching out to 'net-zero' by 2050. One of the major outcomes of COP26 was the agreement to revisit and strengthen the 2030 targets in their NDCs (Nationally Determined Contributions). India also made five commitments at COP26 which includes, '*achieving the target of net-zero emissions by 2070*'; '*bringing non-fossil energy capacity to 500GW by 2030*'; '*bring its economy carbon intensity down to 45% by 2030*'; '*fulfilling 50% of India's energy requirements through renewable resources by 2030*' and '*reducing 1 billion tonnes of carbon emissions from the total projected emissions.*' In the present article, an effort has been made to reflect an overview on COP, COP26 and Indian commitment.

1. Conference of the Parties (COPs)

'Conference of the Parties' or COPs refers to the meeting of those nations (governments) which have jointly signed for the United Nations Framework Convention of Climate Change (UNFCCC) addressing the climate change once a year. COP was first hosted by Germany in 1995.

As the name COP26 suggests, it is the 26th meeting of conferences of parties of UNFCCC which was scheduled originally to be organised in the month of November,2020 in Glasgow, UK but due to COVID-19 pandemic it took place this year from 31st October, 2021 to 12th November, 2021 and was hosted by the UK in partnership with Italy. A 'pre-COP' (a preparatory meeting) took

place in Milan, Italy, from 30th September,2021 to 2nd October, 2021.

2. COP26

In the year 2015, an international treaty was signed by various nations of the world in which it was proposed to keep the global average temperature below 2 degree Celsius. It was the Paris Agreement which was signed at COP21. In this agreement the countries communicated the targets of 'greenhouse gas emissions' and 'Climate-resilient development' to the UNFCCC in the form of 'Nationally Determined Contributions' or NDCs and the approach to these targets were decided by countries themselves. However, the NDCs submitted during the aforementioned conference were not enthusiastic enough which

could collectively persuade the conditions of carrying out the aims of the treaty signed.

The conference of Parties 26 (COP26) has proved to be the first test to ambitions raising functions. The major aims of COP26 are to limit the warming to 1.5 degrees & to reduce global emissions to 50% by 2030 thereby reaching out to 'net-zero' by 2050. As per the special report, 'Global Warming of 1.5°C' (2018), of IPCC (Intergovernmental Panel on Climate Change), it is still possible to achieve the 1.5-degree target only if an unprecedented measure is taken now. The signatories of the Paris Agreement are however expected to submit the new and more enthusiastic NDCs every five years which is referred to as the 'ratchet mechanism'.

As of September 2021, 86 countries and the EU27 have submitted new and updated NDCs to the UNFCCC.

3. COP26 and India

Due to India's large population, emissions per capita are much lower than other major economies of the world. India ranks fourth in the world's biggest carbon emitter after China, the United States and the European Union. (Details of which are mentioned in the figure no. 1.) Even though India did not confer any new NDC at COP26, but Indian Prime Minister Shri Narendra Modi, enthusiastically discussed and made five major commitments on behalf of India to confront climate change which includes; 'achieving the target of net-zero emissions by 2070'; 'bringing non-fossil energy capacity to 500GW by 2030'; 'bring its economy carbon intensity down to 45% by 2030'; 'fulfilling 50% of India's energy requirements through renewable resources by

2030' and 'reducing 1 billion tonnes of carbon emissions from the total projected emissions.'

These commitments described that India is moving ahead with great enthusiasm to protect and restore ecosystems, set up defences, warning systems and resilient infrastructure and agriculture to avoid loss of homes, livelihoods and even lives.

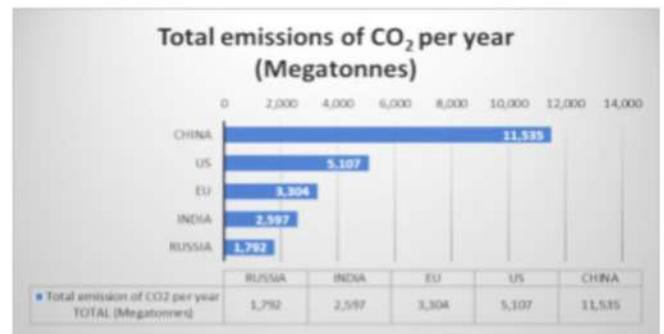


Figure 1: Total emissions of CO₂ per year (in Megatonnes)
Source: EC, Emissions Database for Global Atmospheric Research
*2019 data, EU includes UK
*One megatonne = 1,000,000 tonnes

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Shashank Kumar Mehta (M.Sc. Zoology)

COP26: Expects and Challenges

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Abstract

COP26 had been organized in the middle of turmoil period of COVID pandemic. which shows the urge of all country to do action for saving the earth from ticking bomb of climate change, that has come up with a many expectation toward the coping up climate change, such as the 'Ratchet up' of the intended national determined commitment (INDC) of countries, the rectified and clarification on the some articles and provision of Paris agreement and many more. That will only happen if the zero emission targets have been set by the largest emitter of global energy and as more countries have been added in the Climate Ambition Alliance which is the outcome of the COP25 meeting. But as we keep the expectation high there are a number of challenges, and the biggest of them all are the pandemic which affects the global economy that has been seen in the case of climate financing, upcoming new effects of climate change such as dead zones and continuing increasing the global average temperature.

Keyword: - Climate change, COP26, Paris agreement, Zero emission

Introduction

The 26th Conference of Parties (COP) of the signatory countries of (UNFCCC) United Nations framework convention on climate change has been scheduled on 1-12 November 2021, COP is basically a United Nation Climate Change Conference which has continued for the last 25 years. COP26 also known as (CMP16) the 16th meeting of the parties of Kyoto protocol and the third meeting of the parties of the Paris Agreement (CMA3). COP26 is hosted by UK in Glasgow, Scotland with the partnership of Italy, the date of COP meeting is postponed from 2020 to year 2021 because of the global pandemic COVID-19 which is prime importance matter for all the nations, however the COVID-19 pandemic has brought devastation to millions around the world, disrupting many parts of the global economy. But climate change has continued, and it ultimately threatens life on earth. Climate change is the tickling bomb, recently 6th IPCC Assessment report of Working

group-1 reports indicated that the green house gases emission is exponentially increase and global warming of earth will causes extreme weather events and increasing sea level is tensed situation for the island counties while the global pandemic.

That is why it is so encouraging to know that the present host countries have declared this year a year not of talking about it, not of alarming people, not of warning- but of action. Because there is no greater responsibility than protecting our planet, such conference, convention and agreement has been proven to be a milestone in solving climate crisis the year 2020 marks the 35 years since the Vienna Convention for the protection of ozone layer, which helped lead to removal of 99% of ozone depleting substance, the climate change is a global challenge it required a global solution, the COP25 which is the longest COP ever seems failed because all the parties is not agreed on any decision like of Financial Support Mechanism so the COP25 does not come with any major effective

step to protected a climate change however in COP25 the new Climate Ambition Alliance (CAA) had been formed with the target to achieve carbon neutrality by the year of 2050, CAA is joined by the 73 countries which be a part of only 13% of total global emission. This is a great initiative but is not successful as much because a major emission contributor does not join this alliance.

That is why the world eyes on the COP26 with the hope of some new ambitious policy and actions to protect the climate change challenge. This will come with lots of expectations and challenges, some of them are trying to discuss over here.

Expectations

A lots of expectations from the COP26 has been there because it schedule in the mid of the turmoil period of global pandemic which show the importance of these types of conference that probably give benefits in truncate the climate change problem, not only that also COP26 is in the 5 year since Paris Agreement; under the Paris agreement, government agreed to update their climate plan by the year 2020. Countries prepared to move from the pre-2020 period under the Kyoto protocol to post-2020 period under the Paris agreement. After the Paris agreement in COP26 countries will be expected to 'Ratchet up' their intended nationally determined commitment (INDC). There are a number of provisions and articles in the Paris agreement which need to be rectified and clarification on some of them, in COP26 the Paris agreement ratification and implementation is the main focus, some issues like rules of carbon market and global emission trading system will function that all are to be discussed. The finalised rule book of the Paris agreement is to be published. After the Joe Biden government, the USA again joined the Paris agreement. It gives

hope to developing countries about the climate financing (Green climate fund) and probably the US declared the Carbon neutrality target year. As the current trend goes, Joe Biden called for the submission of all major emitted nations in 2021 in order to persuade them to commit to an ambition mitigation target. The COP26 had a private finance agenda to help private finance support the global shift to net zero emission, because finance will power the transition to the zero-carbon economy. In COP26 the all parties are expected to declare their carbon neutrality target to secure global net zero emission by mid century and keep 1.5 degree within the reach global temperature. Countries will need to accelerate the phase-out of coal, encourage investment in the renewable energy sector, curtail deforestation and speed up the switch to electric vehicles. In COP26 the developing countries tried to focus on adaptation rather than mitigation and planned the adoption component goal by enhancing investment in development programs in sectors vulnerable to climate change like agriculture, water, Himalayan region and coastal region. There is the possibility that more major emitter countries join the CAA to successfully accomplish carbon neutrality. Green energy sector is merging and globally accepting to cope with climate change. The BASIC group (Brazil, South Africa, India, china) taking coordinating position at multilateral climate negotiation based on the CBDR (common but different responsibility) but china declaring carbon neutrality by 2060 putting other back foot which created pressure on other like brazil and India they are also one of the biggest emitter after USA and China to declared carbon neutrality that a good step to controlled climate change. COP26 will ensure the outcome with equal treatment to all agenda like- adaptation, finance, response

measure, bilateral cooperation and the INDC contribution must be with increased target, great commitment and legal binding rules.

Challenges

When you expecting something definitely number of challenge is also on the way to get it, here is same situation the global pandemic COVID-19 is the biggest challenge because COVID crisis hits very badly to the economy of world and governments focuses on the health care facility, and climate change is still continued and to be very dangerous than this pandemic. That probably affects the matter of climate financing for the developing countries to enhance technology transfer to reduce use of non renewable energy sources. Many major emitter countries like India and USA till now did not declare their target of carbon neutrality, which is the need of this time because this is the last change in COP to discuss the matter of mitigation then after we had to be focused on the adaptation strategy. Another challenge of drastically increasing the number of 'Dead Zones' in the world which destroy the hope of rejuvenation of the ocean ecosystem, is the urge to recreate them. Most parties (basically the least developing countries and small island developing countries) try to add the topic of climate change on the UN Security Council (UNSC) agenda; however this will be opposed by the big bulls like India. However India did great work for climate change and according to the UN only India is on the path of fulfilment to Paris agreement pledges rather than India, UN gives a statement that; world climate pledge yet not enough to avoid dangerous warming of earth. Some matters of global emission

trading system will be functioning where the countries have not yet agreed on how to implement it, and the topic of carbon market which could prevent the double counting of emission. The provisions related to the carbon market have been deeply contested with India, Brazil, China and some other developing countries aligned on one side and the developed countries, many small island countries and civil societies group on the other side. There is a leadership challenge in COP26.

Conclusion

A healthy environment is the foundation for a stable and productive society. The COP is a way where almost all major parties have decided the strategy and set targets to cope with the climate change challenges. In COP26 the major focuses on climate financing, carbon neutrality, global corporations, and Green energy, adaptation to protect community and natural habitat, carbon market and net zero emission by producing positive sustainable economic and environmental returns. These are the some major issues which will be discussed and acted on earliest in the COP26. We must protect, conserve and sustainably manage our natural resources for present and future generations.

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Ankush Charavande, M.Sc.student



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Webinar Report

Himalaya Diwas 2021 (Himalaya Day)

Organised by:

JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University
New Delhi - 110 067

September 09, 2021

Himalaya Diwas 2021

Theme: Contributions of Himalayas & our Responsibilities

The School of Environmental Sciences celebrated Himalaya Diwas on September 09, 2021. On this occasion, a webinar was organized in collaboration with the JNU ENVIS Resource Partner, SUNRISE Project, and the Young Holistic (YoHo) group, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi.

The panel included very eminent researchers such as **Prof. K.S. Rao** (Department of Botany University of Delhi), **Dr. Kala Chand Sain** (Director, Wadia Institute of Himalayan Geology, Dehradun), **Prof. U.C. Kulshrestha** (Dean SES & JNU ENVIS Coordinator), **Prof. A.P. Dimri**, (Professor, SES, JNU) and **Prof. P.K. Joshi**, (Professor, SES, JNU) The Young Holistic leader **Ms. Komal choudhary** represented the student YoHo group, while **Ms. Swati Singh**, Programme Officer, ENVIS, SES executed the programme. Prof. Umesh Kulshrestha, moderated the panel discussion. It was attended by more than 100 participants, through Google-Meet and Facebook Live platforms. The participants included university students, researchers, faculty members and other stakeholders both nationally and internationally. **Prof. U.C. Kulshrestha, Dean SES & JNU ENVIS Coordinator** – Prof. Umesh started the webinar and explained how trans-boundary and long-range transport of acidifying pollutants impact the Western Himalaya. He specified that after various research on the air mass samples from these sites were found to be acidic and originated from the Middle East and Europe mainly.



Webinar Schedule: Himalaya Diwas 2021	
Date : September 09, 2021 Time: 03:00 - 04:30 pm IST	
Speakers	Time
Welcome Address by Prof. U.C. Kulshrestha , ENVIS Coordinator, SES (Dean), JNU, India	03:00 - 03:10 PM
Prof. K.S. Rao , Department of Botany, University of Delhi	03:10 - 03:25 PM
Dr. Kala Chand Sain , Director, Wadia Institute of Himalayan Geology, Dehradun	03:25 - 03:40 PM
Prof. A.P. Dimri , SES, JNU	03:40 - 03:55 PM
Prof. P.K. Joshi , SES, JNU	03:55 - 04:10 PM
Ms. Komal Choudhary , YoHo Lead & Student, SES, JNU	04:10 - 04:20 PM
Vote of thanks by Ms. Swati Singh , Programme Officer, JNU ENVIS	04:20 - 04:30 PM

Organized by:
JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University, New Delhi
Ministry of Environment, Forest & Climate Change, Govt. of India, New Delhi

Fig.1: Poster and Schedule of the Webinar widely circulated on the social media platform.

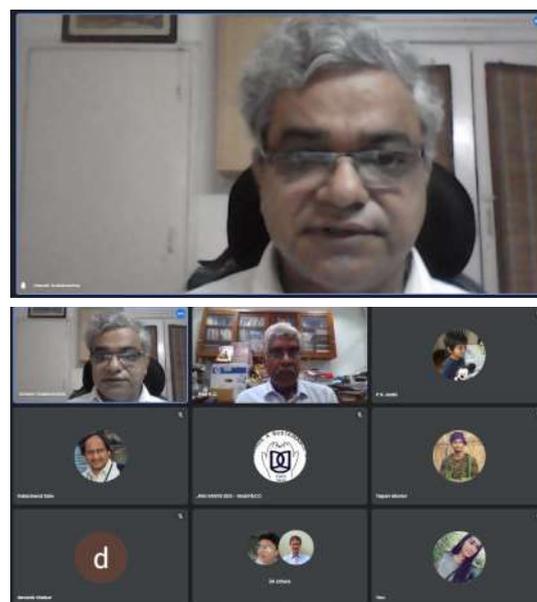
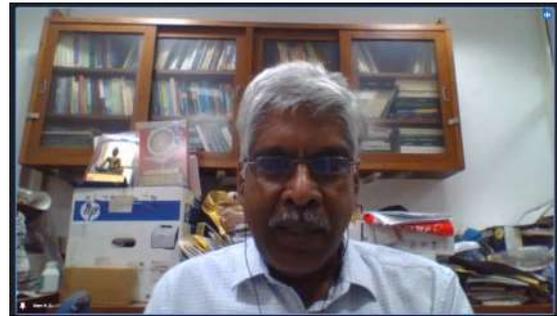




Fig.2: Prof. Umesh Kulshrestha, Dean & ENVIS Coordinator, SES, JNU

Prof. K.S. Rao, Department of Botany University of Delhi – Prof. Rao shared his vast knowledge of Himalayan ecosystem briefly. Firstly, he introduced the audience what Himalaya actually is and its significance, the different initiatives taken by Himalayan University Consortium(HUC), Kathmandu, Nepal; Indian Himalayan Central University Consortium (IHCUC), Srinagar, Uttarakhand; which is a lead agency implementing the programme where all the universities receiving funds from the Central University are participating and implementing the research activities.

He summarized how the development plans are affecting the Himalaya and even in covid pandemic situation there is loss in biodiversity. He focused on the importance of long term studies for ecological and economic changes in time, and interactions in space for a realistic understanding of the hill ecosystems.



Loss of Biodiversity in Himalayan Ecosystems: An indicator of environmental change in Himalaya

What is Himalaya

The Himalayan mountain system is divided exactly into the following five main, each showing a distinctive tectono-tectonic character and evolutionary history.

- The Sub-Himalaya: 10-50 km wide belt of Late Tertiary soft-sediment coverings the Shivalik Group. This belt also includes the older Miocene Eocene and their equivalent, the Dharmashales.
- The Lower Himalaya: 50-100 km wide belt predominantly comprising Proterozoic low-grade metamorphic rocks overlain by thrust sheets of granitic and metamorphic rocks.
- The Higher (or Great) Himalaya: 10-15 km thick belt of dominantly Precambrian metamorphic rocks and younger (Cenozoic). This is also the zone of highest uplift.

Trans- (or Tethyan) Himalaya: a belt of dominantly shelf (mostly fossil-bearing) sediments of Late Proterozoic to Cretaceous age, bounded by the Indian- Eurasian Suture Zone (ITZ), a relatively narrow belt of ophiolite and associated sediments. Though not a thrust contact, the ITZ is an important tectonic contact, wedging the Indian continental block with the Tibetan block. North of the ITZ is a belt of 40-100 Ma old granitoids, known as the Trans-Himalayan batholith granites.

K.S. Rao, Department of Botany, University of Delhi, India (2007)

National Mission on Sustaining Himalayan Ecosystems

The most crucial and primary objective of the mission is:
To develop a sustainable national capacity to continuously assess the health status of the Himalayan ecosystem,
To enable policy bodies in their policy-formulation functions, and
To assist states in the Indian Himalayan Region (IHR) with their implementation of actions selected for sustainable development.

This integrated objective would require :

- Scientific assessment of the vulnerability of the Himalayan ecosystem to short and long term variability in the weather and climate in all its dimensions of physical, biological and socio-cultural aspects
- Research for framing evidence-based policy measures to protect the fragile ecosystem and
- Time-bound action programmes at state level in the Indian Himalayan Region (IHR) in order to sustain the ecological resilience and ensure the continued provision of key ecosystem services.

Traditional crops and food security

- In the Himalayan mountains, traditional crops have many advantages as food crops for household food security.
- The role of finger millet, barnyard millet, amaranth, buckwheat and hog millet, etc. is most significant in this regard.
- Some of these crops are early maturing for which harvesting can be made within 50 – 60 days, though harvesting not begins before the period of 150 days.
- Erosion of traditional crops and changing food habits which aggravated food insecurity in the mountains is identified as an important factor for expansion of cropland and low crop yields.



Fig.3: Prof. K.S. Rao Department of Botany, University of Delhi

Prof. Rao then spoke about the agro-ecology in the Himalayan states and the study on five thematic areas by the IHCUC. He introduced the audience with the major issues and changing scenario of Himalayan ecosystem. He said due to research biasedness, less-known and restricted knowledge of cultivation and uses; these traditional mountain crops are neglected and therefore the loss of biodiversity. Prof. Rao ended his talk by suggesting some approaches for agro-biodiversity conservation and management in the Central Himalaya.

Dr. Kala Chand Sain, Director, Wadia Institute of Himalayan Geology, Dehradun –

Dr Kala Chand sain, presented the geological, seismological and physiological views on Himalaya. He pointed out that the resources should be used in a scientific manner and continuous monitoring sensors should be used so that human induced extreme events can be evolved.

He talked about the formation of Himalaya and the subsurface shift phenomena still going on. He talked about the fragile ecosystem of Himalaya which appears a lot of tectonic and neotectonic activities which is responsible for Himalayan erosion, excursions and health has changed the landscape of the Himalaya which in turn controls the damage occurred during earthquake, landslide, cloudburst, etc. Highlighting the cascade effect observed in Kedarnath because of the cloudburst glacial but there was some sort of ice melts and snow melts rainfall debris is a floor which impacted 5000 villages and approximately 6,000 people.

He talked about Temperature variation as we move upward. There is a habitation dependent

temperature variation in the Himalaya for less than 500m. We say 2 degree Celsius temperature has gone decay but more than 500m above 0.6 degree Celsius temperature is observed widely.

This is due to isothermal change and anthropogenic activities have caused climate change. Man-made activities like mining of resources, road construction, hydroelectric power projects, Urban Development, etc. are the anthropogenic factors which are responsible for the hazards and climate change.

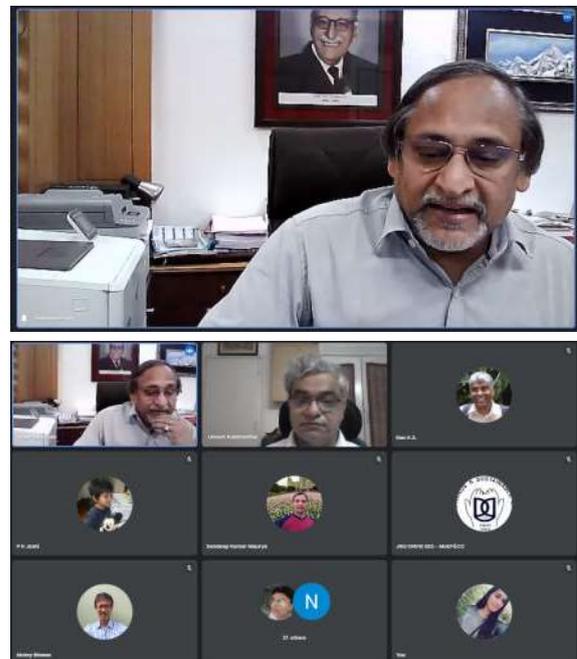


Fig.4: Dr. Kala chand Sain, Director, Wadia Institute of Himalayan Geology, Dehradun

Dr. Kala Chand Sain emphasized on two aspects of Himalaya (a) Natural Hazards and (b) the water that is in the form of Glacier is present at the higher altitude which is a lifeline to billions of people. Hence, these water availability supports irrigation drinking hydropower projects,etc., a lot of opportunities and facilities. The sediment that water carries is

beneficial for Agro-economy. He has focused on the most important resource of Himalaya that is geo- resource and Himalayan role in monsoon. The main focus is on evolving a mechanism between socio-economic development in the Himalaya very sustainably.

Dr. Kala Chand Sain mentioned that the policymakers should sensitise what should be our role. They cannot be stopped but can be reduced, he said scientific information for policy making is required. A complete network has to be established for the scientific information, through which data is generated to local authorities and hence as an early warning system which can help to reduce the avalanche. Black carbon- “light absorbing component of the matter present in the atmosphere”. Whose sources are combustion of fossil fuel, biofuel, biomass, etc., responsible for absorbing radiation and warming the atmosphere. Health impacts are Asthma, cancer, lung congestion etc. hence sources have to be identified and mitigated as it may lead to climate change, health hazard, etc.

Prof. A.P. Dimri, SES, JNU – Prof. A.P. Dimri stated Himalaya as beautiful, protruding out of earth upto 6000 to 8000m. He talked about a book written by K S Valdiya on geography, people and geodynamics of India in puranas and epics: a geologist interpretation because Himalaya as a beautiful natural habitat which lies free in the atmosphere which is 55 million years back Himalaya came and was a flat land when two plates - Eurasian and Indian tectonic plates collided and Himalayan plate went beneath and hence Himalaya came protruding

out of side and that is what which brings monsoon.

He raised the question that he seeks to answer for this “that right from the small-scale system such as disaster which happens in a couple of minutes to large-scale system impacting monsoon, warming, snow over it (a kind of water storage Methane trapped in the form of permafrost). There are various interconnecting land function phenomena happening with the Himalayan surface. Climate interaction, according to IPCC 2021 report data on Himalayan states and number of dried days rise, decrease in lower alleviation and rise in upper alleviation. We will have more warmer and other consequences in recent times by virtue of temperature increases in the southern Himalaya. There is an increase in the number of potential disasters like cloudburst, landslide, floods etc.

He shared some interesting facts like all these events are by virtue of distribution of energy but in recent years all these events are happening together that is one leads to another. Earlier understanding was that cloudburst and Habitat wash-off were linked. Recently due to Urban planning the reverts fill due to the cloud burst. He took an important question raised by K S Valdiya, that in our time the Himalayan region villages are not found on the banks of rivers. He said on those times he remembers his mother fetching water from rivers walking a longer distance from the village and showing how a village should be established. Urbanisation of population along small riverlets

the important reason could be due to increase in temperature in lower valley or upper Valley.



Fig.5 Prof. A.P. Dimri, SES, JNU

We have seasonal Himalayan Glacier having many outlets we found particularly in Central Himalaya doubled the flow of rivers higher up in the Himalaya has increased this indicates river flow will be increasing in 15 years and this in due course of time the river flow will be decreasing because higher up in the Himalaya we will not get a lot of snow mass or water mass available.

Permafrost is an important finding which he highlighted is that permafrost is a kind of debris that is worried about a certain amount of water at last. Prof. Dimri concluded that Himalaya is a natural extravagant, labelled with multiple processes with multiple kinds of interaction happening within the Himalaya; a kind of process that changes with time. Hence, he focused from climate, hydrology to permafrost aspects of Himalaya.

Prof. P.K. Joshi, SES, JNU - Prof. P.K. Joshi focused on Himalayan day theme i.e.

Himalaya: science and knowledge. He linked Himalaya to religion. He gave a brief introduction about the Himalaya Day which is an initiative started in 2010 by a group of noted environmentalist and civil society members to spread the message that a solution for sustainable development and ecological stability of the Himalaya is a must.

He said as it is a unique ecosystem in itself, many national reputed institutions started off by celebrating this day. The Uttarakhand Government in 2014 officially declared September 9th as the Himalayan Divas to spread the message of conservation of Himalayan ecosystem, then the central government took this as a major concern. He thanked all the present speakers for their views. He pointed out that 2022-2030 is considered the ecological restoration decade of the UN, wherein Ecosystem approach for a variety of initiatives by conservation of biodiversity, disaster risk reduction at the behest of ecosystem approach and Sendai Framework. Also Nature Based Solutions (NBSs) have been adopted in most of the countries and our's eternal in all decision making. He beautifully expresses his views on a payment for ecosystem services and the Himalayan landscape ranked topmost in providing such services.

He focused on the "socio-ecological aspects" of Himalaya that Himalaya has a unique contribution in terms of social ecological setup is said walking through these mountains from Shivalik to trans Himalaya we can easily observed social system which were conceptually there and also in practice and are very much aligned with what is called

sustainable development, understanding linkage between society and ecosystems. One is able to see unique settings over there strategically. He talked about Himalaya having borders from different countries not only in terms of Defence but also in terms of cold waves.



Fig.6: Prof. P.K. Joshi, SES, JNU

Anthropogenic activities: In 2017, High Court of Uttarakhand Order mentioned that the Ganga and its main tributary Yamuna should be treated and given the status of living entity; why not Himalaya should be dealt with reverence and sensitivity? He raised an important question that the development can't be possible and the solution lies in the lens of the sustainable development pathways. Importance of Himalaya is underestimated for its unique integral support in overall development of the nation. The Himalaya system is due to inadequate attention basically affecting the life supporting system there if you look at the status of forest, water, air, soil have become alarmingly. These need to be considered for national interest to the contribution of the

remaining subcontinent and cooperation is much needed. Ecological challenges why unique personal wealth of the Himalaya is undergoing both functional and compositional change reason is due to high induced fragmentation of forest land holding the climate change to the increment of rate of change is incremental but this increase in temperature is shifting of Agricultural production which is there affecting the timber line.

Professor Joshi highlighted some of its own research is own research finding yourself during his research he came to know that early flowering and fruiting in some parts of Himalaya was observed and with the specific facilities and flowering forces which added is which added so livelihood. He pointed out that both because of human activities and climate change, invisible speech specific length and petroleum to higher reaches ecological modelling exercises and work has reported such kind of variation.

As a scientist reported that I see it as a wonderful laboratory having multiple lines each identity and it helps in fact serve as a wonderful beams of local and global phenomenon like climate change human livelihood ecological having reference to these attributes one need to be in front of any kind of any anthropocentric intervention in the Himalaya. Prof. Joshi Concluded by saying let us treat Himalaya as Himalaya not try to make it as any other landscape means the surface which is coming in the language of development changes being done, and he stated. so it is a projectile cascading landscape which is having a much wider range of species which is beyond human beings imagination so we should look at

various aspects of addressing challenges as a scientist for policy makers and politicians, he said.

Ms. Komal Choudhary, YoHo Gyan Lead & Student, SES, JNU – as a young holistic leader, Komal talked about YoHo activities. She highlighted that Young Holistic (YoHo) like platforms are needed for the all-round development of the students.

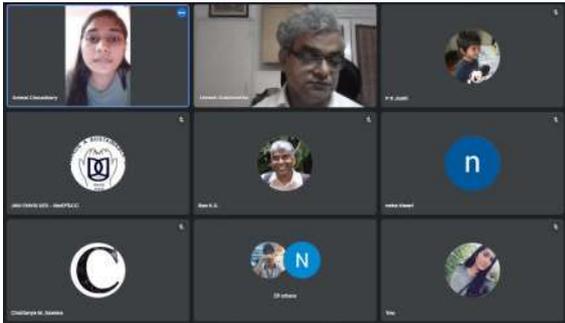


Fig.8: Ms Komal Choudhary, YoHo Lead, Student, SES/JNU

Vote of Thanks was extended by **Ms. Swati Singh, Programme Officer, JNU ENVIS** - She thanked all the speakers, participants, students and the faculty for making the event successful.

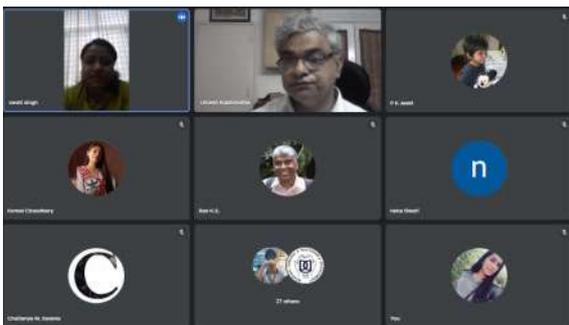


Fig.9: Ms. Swati Singh, Programme Officer, JNU ENVIS



Fig.10: Panelists & Participants of the Panel Discussion

The session came to an end with the distribution of e-certificate to all the participants. This is to mention that a very positive feedback has been received from the participants about the event.

Recommendations:

1. Focus on long term studies for ecological and economic changes in time and space.
2. Traditional mountain crops should be documented and promoted, to stop further biodiversity loss.
3. Urgent need for evolving a mechanism for sustainable socio - economic development in the Himalaya.
4. Himalaya is such a fragile ecosystem, it should be treated like it only and should not be tried to be made like any other landscape.
5. Any anthropogenic interventions in the Himalaya need careful environmental analysis as small errors can lead to many cascading detrimental effects.

Feedback:



Your Short Line Feedback.

21 responses

- good
- Good
- It was very informative webinar.
- Very nice
- very informative and great .
- Looking forward for more webinars on environment protection
- We need to take a strong step to protect our environment, especially our beloved Great Himalaya.
Thank you
- Very good talk and very informative
- Very nice, relevant and informative webinar
- Amazing webinar
- It was very informative session and gained lot of awareness
- Informative
- Very informative session.
- It has been an inspirational session and we got a lot of knowledge.
- Excellent Presentations.
- thank you
- Awesome.

Webinar Live Session on the official FB page: <https://www.facebook.com/jnuenvis/videos/675891040037353>



Extempore Competition Report

स्वच्छता पखवाड़ा 2021

Organised by:

JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University
New Delhi - 110 067

September 14, 2021

Swachhta Pakhwada 2021

JNU ENVIS Resource Partner celebrated Swachhta Pakhwada 2021 on September 14, 2021. On this occasion, an Extempore Competition was organized in collaboration with Swachh JNU office and the Young Holistic (YoHo) group, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi.

This Programme was initiated by **Prof. U.C. Kulshrestha** (Dean SES & JNU ENVIS Coordinator) and **Prof. P. K. Joshi** (Professor, SES, JNU). The jury members were **Dr. Sandesha Rayapa**, (Assistant Professor, School of Language, Literature & Culture Studies, JNU) and **Dr. Usha Singh Gaharwar**, (Associate Professor, Swami Shradhanand College, Delhi University). **Ms. Swati Singh**, Programme Officer, ENVIS, SES moderated the event. It was attended by more than 200 participants, through Google-Meet and Facebook Live platforms. The participants included university students, researchers, faculty members and other stakeholders.



Fig.2: Jury Members and Participant of Extempore Competition



Fig.1: Poster of the Competition widely circulated on the social media platform.



Fig.3: Prof. U. C. Kulshrestha & Prof. P. K. Joshi

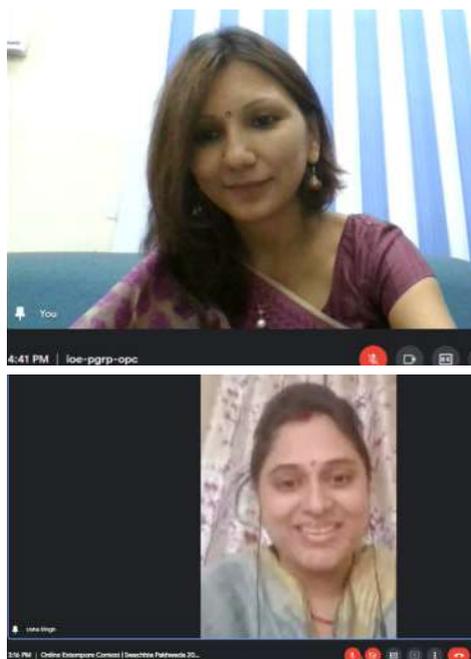


Fig.4: Dr. Sandesha Rayapa & Dr. Usha Singh Gaharwar - Jury Members in the Extempore

Competition

Rules followed for the Competition:-

1. Ideas presented should be original to the authors.
2. Topic was displayed by the host on the spot.
3. One minute was allotted to think on the topic & 5 minutes to present.
4. Speakers were not allowed to take more than the allotted time.

Candidates were invited one at a time and topics were disclosed on the spot. Six minutes in total were given to each candidate to deliver. Time was closely monitored & at the end of five minutes candidates were informed and after six minutes session was closed for the candidate.

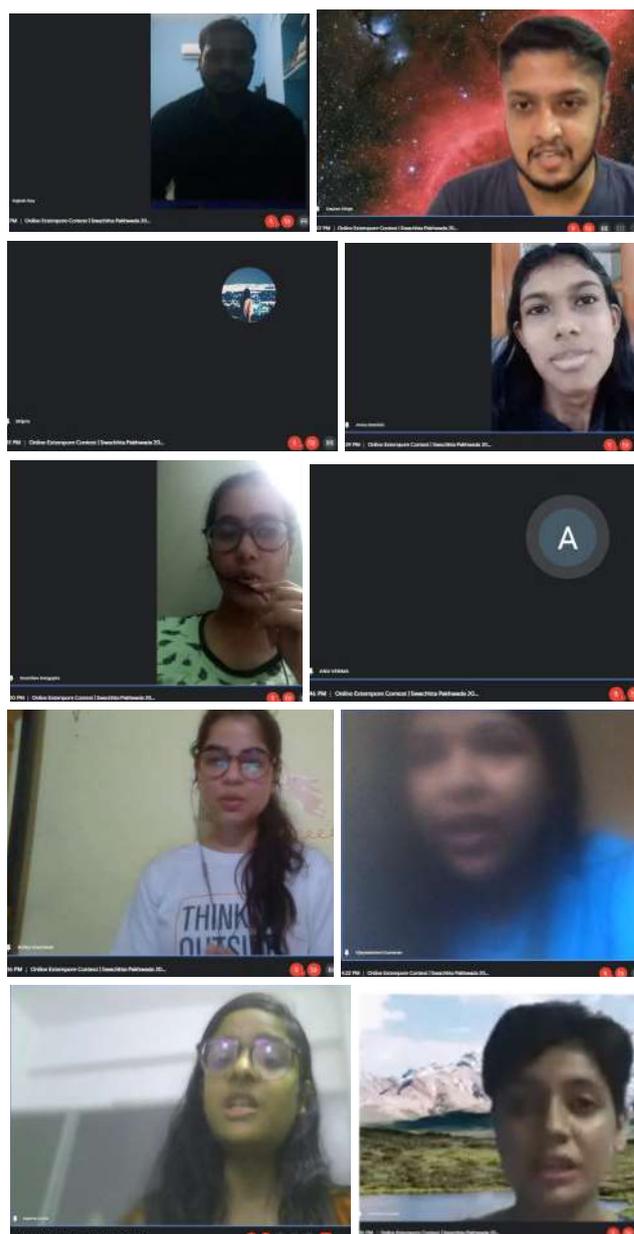
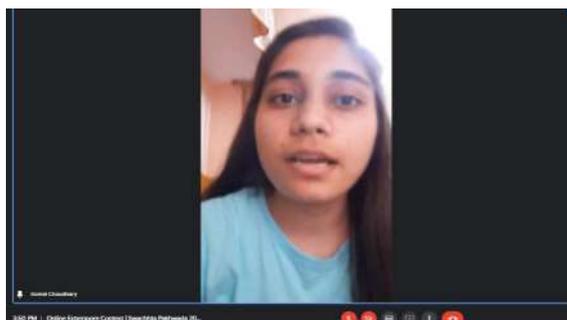


Fig.5: Participants in the Extempore Competition

Vote of Thanks was extended to all the Jury Members, participants, students and the faculty for making the event successful.

The session came to an end with the distribution of e-certificate to all the participants. Very positive feedback was received from the participants and faculty.

SWACHHTA PAKHWADA 2021 | RESULT OF ONLINE EXTEMPORE COMPETITION

1

Gaurav Kumar
Topic: Importance of Cleanliness in times of Covid-19

Kashish Kundan
Topic: Swachh Bharat Abhiyan & Sustainable Development Goals

2

Congratulations to All

Ritika Shashwat
Topic: Importance of Inculcating Hygiene & Sanitation Studies in School Curriculum

3

Komal Choudhary
Topic: Swachh Bharat Abhiyan Success or Failure, why?

Apurva Goyal
Topic: Role of Swachh Bharat Abhiyan in encouraging tourism in India

TOTAL PARTICIPANTS: 11

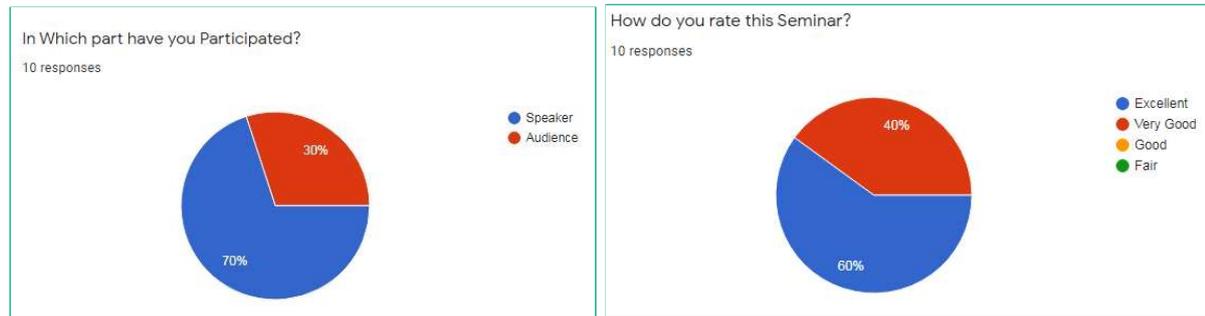
Organized By JNU ENVIS RP in collaboration with Swachh JNU Office

Fig.6: Result of Extempore Competition

Table 1: List of Participants and Topic Assigned

S. No	Name of Participants	Assigned Topic for Extempore Contest
1	Rajesh Ray	What is your contribution to maintain cleanliness in your neighborhood?
2	Shipra Lakshmi	What is your expectation for HOD of the Institution: to ensure cleanliness in the campus?
3	Anna Dominic	How do you assess the fate of Swachh Bharat Abhiyan?
4	Anu Verma	How would you like to see India five years down the line?
5	Komal Choudhary	Is Swachh Bharat Abhiyan a success or failure & why?
6	Gaurav Kumar	Importance of Cleanliness in times of Covid-19.
7	Kashish Kundan	Swachh Bharat Abhiyan and Sustainable Development Goals.
8	Soumilee Dasgupta	Issues and challenges faced by Municipal Corporation and Municipalities of Indian cities and towns.
9	Ritika Shashwat	Importance of inculcating Hygiene and Sanitation Studies in school curriculum.
10	Vijyalakshmi S.	What role youth of India should play in Swachhta Abhiyan?
11	Apurva Goyal	Role of Swachh Bharat Abhiyan in encouraging tourism in India.

Feedback:



Your Short Line Feedback.

7 responses

So beautiful program, very nice extempore speech. I have listen whole program.

Thanks for the organisers

Amazing feedback we get from judges.

It was an insightful event

awesome

Very well organised.

मैं एक पर्यावरण शोधकर्ता हूँ और 14 वर्षों से हवा, पानी और मिट्टी पर अध्ययन कर रहा हूँ और अपने अध्ययन से एक निष्कर्ष निकाला कि "अगर हम जीवित रहना चाहते हैं तो हमें पर्यावरण अनुकूल बनना होगा। अन्यथा हम अपनी आने वाली पीढ़ियों और धरती के अस्तित्व को भी खो देंगे।" और जब तक हम अपनी गतिविधियाँ पर्यावरण के अनुकूल नहीं करेंगे तब तक स्वच्छ भारत अभियान अधूरा है। इसमें हम सभी की भागीदारी चाहिए। आपका प्रतियोगिता के माध्यम से लोगों के विचार रखना अति उत्तम तरीका है जिससे सभी का पर्यावरण के प्रति क्या नजरिया है वह मालूम पड़ता है।

Webinar Live Session on the FB page:

<https://www.facebook.com/watch/live/?v=529645944807447&ref=search>



Webinar Report

World Ozone Day

Montreal Protocol – Keeping Us, Our Food Vaccines

Organised by:

JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University
New Delhi - 110 067

September 16, 2021

World Ozone Day

Montreal Protocol - Keeping Us, Our Food & Vaccine Cool

The School of Environmental Sciences celebrated World Ozone Day, on September 16, 2021. On this occasion, a webinar was organized on the theme 'Montreal Protocol - Keeping Us, Our Food & Vaccines Cool' in collaboration with the JNU ENVIS Resource Partner and the Young Holistic (YoHo) group, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi.

The panel included very eminent national and International researchers such as **Dr. A. Jayaraman** (Former Director ISRO - NARL), **Dr. A.N. Singh**, (Addtl. Director, Ozone Cell, MoEF&CC), **Prof. U.C. Kulshrestha** (Dean SES & JNU ENVIS Coordinator), Dr. Manisha Mishra, (CSIR-NEERI, New Delhi). The Young Holistic leader **Ms. Saham Ansari** represented the student YoHo group, while **Ms. Swati Singh**, Programme Officer, ENVIS, SES executed the programme. The panel discussion was attended by more than 150 participants, through Google-Meet and Facebook Live platforms. The participants included university students, researchers, faculty members and common citizens from different parts of the country. Prof Kulshrestha moderated the panel discussion.

Prof. U.C. Kulshrestha, Dean SES, ENVIS Coordinator – Prof. Kulshrestha welcomed all the speakers, participants, students and guests. Gave a brief introduction about the speakers. He provided a brief introduction of all the eminent panelists and activities of YoHo programme as well as JNU-ENVIS RP.

Speakers	Time
Welcome Address by Prof. U.C. Kulshrestha , ENVIS Coordinator, SES (Dean), JNU	05:00 - 05:10 PM
Dr. A. Jayaraman , Former Director ISRO-NARL	05:10 - 05:30 PM
Dr. A. N. Singh , Addtl. Director, Ozone Cell, MoEF&CC	05:30 - 05:50 PM
Dr. Manisha Mishra , CSIR-NEERI, New Delhi	05:50 - 06:10 PM
Ms. Saham Ansari , YoHo Lead & Student, SES, JNU	06:10 - 06:20 PM
Vote of thanks by Ms. Swati Singh , Programme Officer, JNU ENVIS	06:20 - 06:30 PM

Organized by:
JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University, New Delhi
Ministry of Environment, Forest & Climate Change, Govt. of India, New Delhi

Fig.1:Poster and Schedule of the Webinar widely circulated on the social media platform

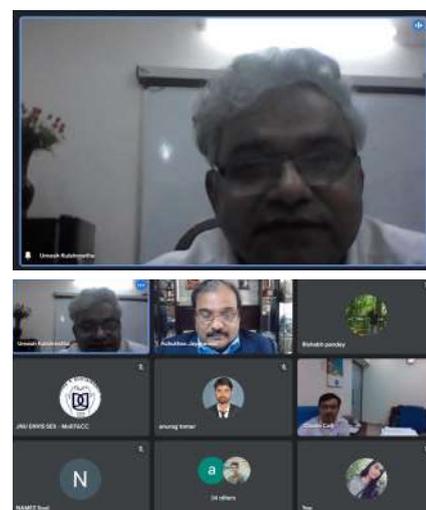


Fig.2: Prof. Umesh Kulshrestha, Dean & ENVIS Coordinator, SES, JNU

Prof. Kulshrestha mentioned his findings about the reason for recently recorded spikes of ozone at urban locations in Delhi. Major factors affecting ozone build up include reduced destruction due to lowering of Cl₂ and HCl emissions after the ban on plastic burning and closure of illegal pyrolysis units by the Environmental Pollution Control Authority (EPCA) and reduced NO levels due to lesser traffic. Another important factor is black carbon (BC) which is reduced drastically resulting in more solar radiation which helps in ozone formation. He then invited the first speaker Dr. A. Jayaraman to deliver his talk.

Dr. A. Jayaraman, Former director ISRO - NARL - He mentioned the theme of this year Ozone Day “Montreal Protocol - Keeping us, our food and vaccines cool”.

Dr Jayaraman talked about the **Kigali Amendment** to the Montreal Protocol in October 2016, according to this amendment Nations have committed to phase down Hydrofluorocarbons (HFCs). While HFCs don't damage the ozone layer, these coolants are powerful greenhouse gases. Reducing their use, as agreed, is expected to avoid up to 0.4°C of global temperature rise by the end of the century. The Kigali Amendment also provides an opportunity for improved energy efficiency in the cooling sector. New innovation replacing HFCs offers an opportunity to redesign air conditioning and refrigeration to use less power, allowing expansion of comfort cooling and cold chain efficiencies without increasing climate impacts. Improved cold chain efficiencies, particularly in developing economies, will also combat food loss.

Ozone in the Atmosphere -Thumba Equatorial Rocket Launching station (TERLS) - ISRO initiated Rocket borne studies of Ozone in early 1980's. Adoption and strengthening of the Montreal Protocol has led to reductions in the emissions of CFCs. IPCC

(2005) review of ozone observations and model calculations concluded that the global amount of ozone has now approximately stabilized. Although considerable variability is expected from year to year, including in polar regions where depletion is largest, the ozone layer is expected to begin to recover in coming decades due to declining ozone - depleting substance concentrations, assuming full compliance with the Montreal Protocol.

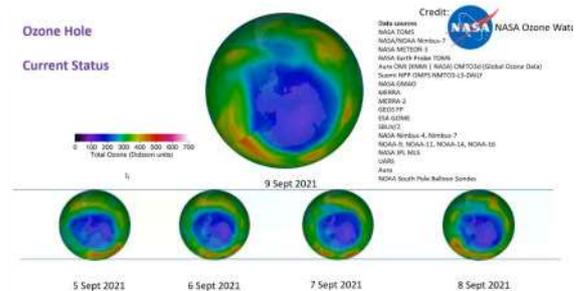
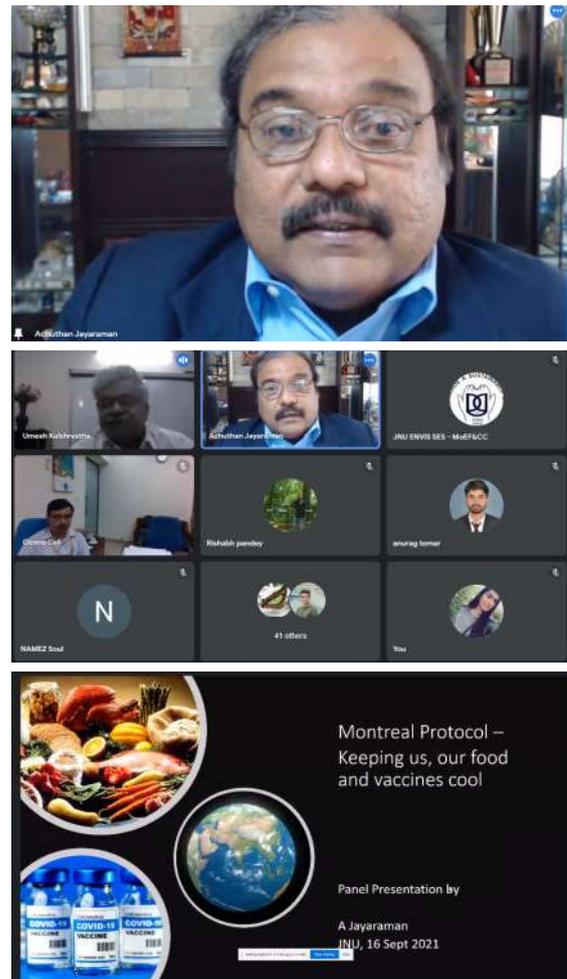


Fig.3: Dr. A. Jayaraman, Former director ISRO - NARL

Hydrofluorocarbons (HFCs) which replaced CFCs don't damage the ozone layer, but these coolants are powerful greenhouse gases. Their continued usage is expected to add up to 0.4°C to global warming by the end of the century.

Dr. Jayaraman mentioned that hydrofluorocarbons (HFCs) are man - made organic compounds that contain fluorine and hydrogen atoms. HFCs were adopted to replace the more potent chlorofluorocarbons (CFCs) which were phased out from use by the Montreal protocol. Hydrofluorocarbons (HFCs) that are presently being phased out. The HFCs are largely used in air conditioning.

Dr. A. N. Singh, Addtl. Director, Ozone Cell, MoEF&CC - He talked about the importance of the Ozone layer. Explained the historical background of the Montreal Protocol and India's stand on the issue. He also mentioned how successfully this Protocol has worked to phase out ODS. He further talked about the **Kigali Amendment**.

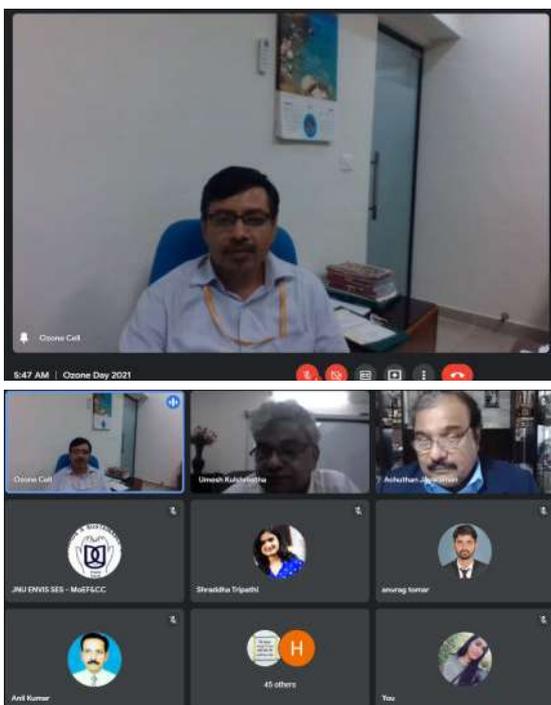


Fig.4: Dr. A. N. Singh, Addtl. Director, Ozone Cell, MoEF&CC

He mentioned the policy decisions of the Indian Government on the issue. He talked about ozone in the stratosphere as good ozone. He explained in detail about the process associated with ozone layer depletion and associated ill effects on human health, wildlife, vegetation and ocean life.

Dr. Manisha Mishra, CSIR - NEERI, New Delhi - She shared her study on spikes in surface ozone levels during summer months in delhi. It is one of the major pollutants in the lower troposphere , a short-lived (~ few days) secondary pollutant. A product of reactions of primary pollutants, mainly CO, NOx (NO, NO₂, HONO, HNO₃ etc.) and Volatile Organic compounds.

She mentioned the factors responsible are solar radiation, temperature, mixing height, relative ratios of NOx and VOCs, etc. It affects human health, forest biomass production, agricultural crops, sensitive ecosystems, materials and warming in the lower atmosphere. Automobile emissions, Industrial Emission, Plastic waste burning, VOCs emission are the main causes.

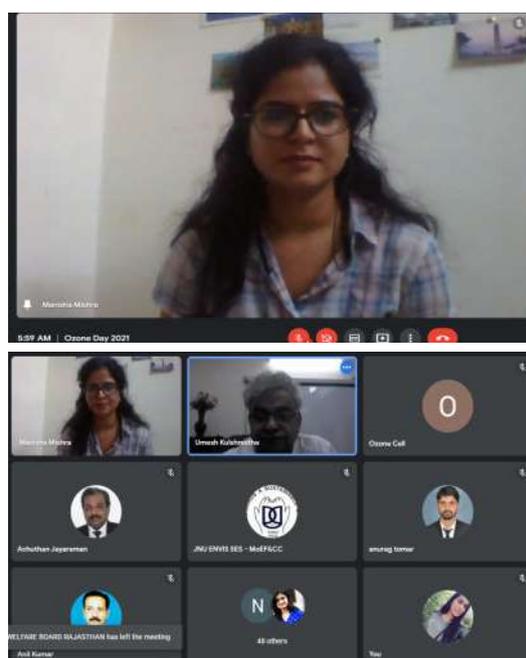


Fig.5:Dr. Manisha Mishra, CSIR - NEERI, New Delhi

She mentioned Improved air quality during lockdown summer, 2020. Significant Reduction in AQI over South Asian cities Kabul, Islamabad, Delhi(41%), Kathmandu (32%), Dhaka (16%), Colombo (33%) has been observed. The lower concentration of NOx and anthropogenic VOCs, ozone was high in 2019 and 2020.

According to Dr Mishra, the studies suggest that despite lower NOx emission, there is an increasing trend of ground-level ozone in Delhi. Identifying the variability of ozone concentration and the factors controlling its formation are significant for developing an optimal mitigation strategy. There is a need to include the chlorine and BC monitoring in NAAQS. Coordinated control of fine particulate matter (PM2.5) and ozone (O3) is an urgent issue for Delhi's air pollution control.

Saham Ansari, YoHo Gyan Lead & Student, SES, JNU – as a young holistic leader, Saham talked about YoHo activities. She highlighted that Young Holistic (YoHo) acts as a platform for all-round development of the students.

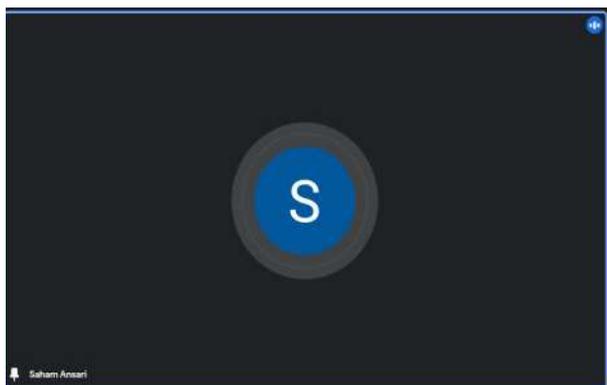


Fig.6: Ms. Saham Ansari, YoHo Gyan Lead, SES, JNU

Vote of Thanks was extended by **Ms. Swati Singh, Programme Officer, JNU ENVIS** - She thanked all the speakers, participants, students and the faculty for making the event successful.



Fig.7: Ms. Swati Singh, Programme Officer, JNU ENVIS RP

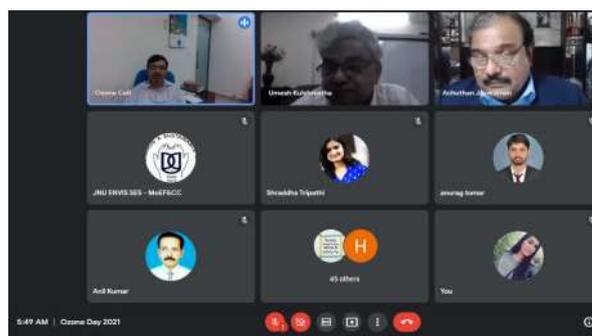


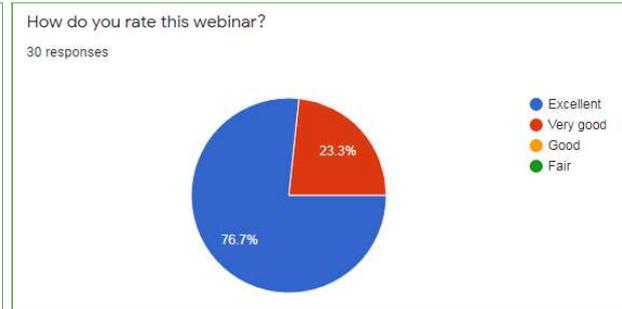
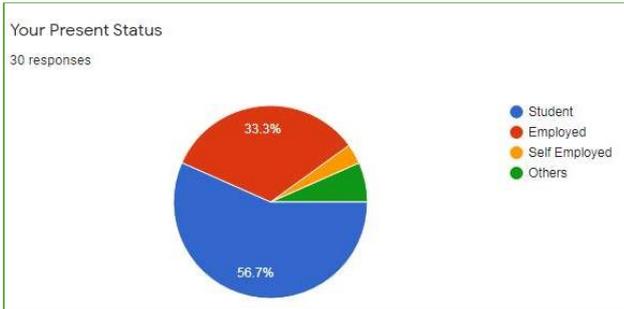
Fig.8: Panelists & Participants of the Panel Discussion

The session came to an end with the distribution of e-certificate to all the participants. This is to mention that a very positive feedback has been received from the participants about the event.

Recommendations:

1. Phased reduction of HFCs is needed as HFCs are potent GHG.
2. Chemical manufacturers should phase down the production and use of HFCs.
3. More R&D and new innovations in refrigeration technology.
4. Establishment of Cold Chain - low temperature controlled supply chain with uninterrupted series of refrigerated production.
5. Continuous monitoring of ozone along with HCl and Cl2 is needed.

Feedback:



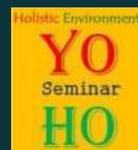
Your Short Line Feedback
20 responses

Very Informative session
Extraordinary information by Jayaraman Sir
Awesome.
Very Knowledgeable & Informative Webinar
Very informative
The sessions were very informative. Looking forward to attending many such webinars in near future.
Nice webinar. Helpful for further studies with environment. Thank you.
Thank you sir for nice n wonderful session
Excellent talk by several eminent speakers

Your Short Line Feedback
20 responses

Excellent Webinar. Please conduct more such webinars on topics such as carbon sequestration and carbon credits.
Very Informative session
Very helpful for my civil services examination preparation. Thank you.
First of all I am giving my heartiest thanks to the authority for conducting such a great webinar. All the speakers were very good specially Jayaraman Sir and the session was very informative. I would request to the the authority to organize more webinars like this. Thank you.
Excellent presentations
Very nice, informative and relevant
Very deep discussion . Thank you for all speakers for valuable knowledge.
Amazing

Webinar Live Session on the official FB page: <https://www.facebook.com/watch/live/?v=1904775836360049&ref=search>



Report on
Iconic Week Celebration
(4th - 10th October, 2021)

Avoid & Eliminate the Single Use Plastic

October 2021

Azadi ka Amrit Mahotsav

Organised by:

JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University
New Delhi - 110 067

Iconic Week Celebration (4th - 10th October, 2021) 'Avoid the Use of Single Use Plastics'

As per the Government of India's 75 week long campaign 'Azadi ka Amrit Mahotsav' Iconic week was celebrated from 4th to 10th October, 2021 by JNU ENVIS Resource Partner on Geodiversity & Impact on Environment in collaboration with the Young Holistic (YoHo) group, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi. Various awareness activities and competitions were conducted during this Iconic week.

It was attended by more than 336 participants, through Google-Meet and Facebook Live platforms. The participants included University and school students, researchers, faculty members and other stakeholders. The report at glance of different activities carried out during the Iconic Week celebrations is given below. Further detailed information is available at the JNU ENVIS Website <http://jnuenvis.nic.in/>.

S. No.	DAY DATE	ONLINE EVENTS ACTIVITIES *	TIME
1	Monday 4 th Oct.	Inviting Innovative Idea Stage to 'Avoid & Eliminate Single Use Plastic' (Online 5 minute talk by each)	3:00 - 4:00 pm
2	Tuesday 5 th Oct.	Online Poster & Painting Competition	5:00 pm (Deadline)
3	Wednesday 6 th Oct.	Online Talk by Padma Shri, Dr. R. Vasudevan, (the Plastic Man of India) Dean & ENVIS Coordinator, TCE-ENVIS RP, Thiagarajar College of Engineering, Madurai, Tamil Nadu.	3:00 - 4:00 pm
4	Thursday 7 th Oct.	Online Quiz Competition	3:00 - 4:00 pm
5	Friday 8 th Oct.	Online Poetry Competition (Bilingual)	3:00 - 4:00 pm
6	Saturday 9 th Oct.	Field Programme	10:00 - 11:00 am
7	Sunday 10 th Oct.	Result & Concluding Session (Feedback)	11:30 - 12:30 pm

* Tentative schedule
For Instructions to participate in the competitions please visit [JNU-ENVIS website](http://jnuenvis.nic.in/).

Registration Form Links to Participate:

- For Talk/Webinar : shorturl.at/jnsMR
- For Poster & Painting : shorturl.at/uvJM9
- For Innovative Ideas, Poetry & Quiz : shorturl.at/gzKN5

E-certificate will be awarded to the participants

Organised by:
JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University, New Delhi - 110 067
Ministry of Environment, Forest & Climate Change, Government of India, New Delhi

<http://www.jnuenvis.nic.in/>
jnuseservis@gmail.com & jnu-env@nic.in

Fig.1: Poster of the Competition widely circulated on the social media platform.

Day 1: October 04, 2021

Online Inviting Innovative Idea Stage

Prof. Kulshrestha welcomed all the participants, students and the guests of the programme of Inviting Innovative Ideas Stage. The programme was moderated by **Prof. U.C. Kulshrestha** (Dean SES & JNU ENVIS Coordinator), & **Dr. Usha Mina**, (Associate Professor & ENVIS Co-coordinator, SES, JNU. **Ms. Swati Singh**, Programme Officer, ENVIS, SES executed the programme. It was attended by more than 25 participants, through Google-Meet and facebook live.

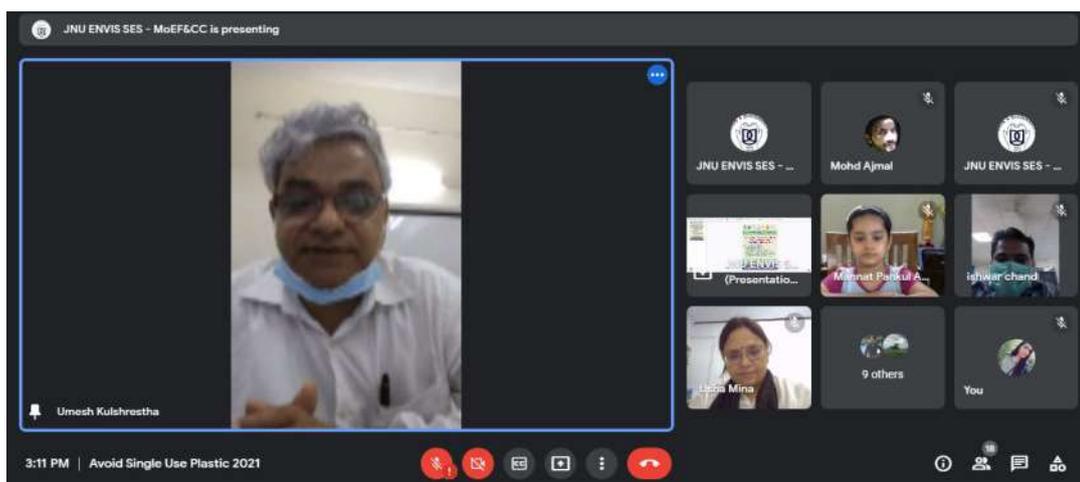


Fig.2: Prof. Umesh Kulshrestha, ENVIS Coordinator, SES, JNU on Single Use Plastic



Fig.3: Poster of the Event on Inviting Innovative Idea Stage



Fig.4: Participants in the Inviting Innovative Idea Stage on Single Use Plastics

Link to the event: http://jnuenvis.nic.in/documents/IconicWeek2021_Posters.pdf

FB Live Session of Event : <https://www.facebook.com/watch/live/?v=529645944807447&ref=search>

Youtube Video link of Event : https://www.youtube.com/watch?v=E_6o-SDb80o

Day 2: October 05, 2021

Online Painting & Poster Competition on Single Use Plastic

Painting and Poster competitions were organized on day 2. In these competitions, participants submitted their entries. The participants included school and college students. Theme for the competition was 'Avoid & Eliminate the Single Use Plastic'.

Iconic Week Celebration (4th - 10th October, 2021)
Theme: 'Avoid & Eliminate the Single Use Plastic'

Poster & Painting Contest
Date: 5th October, 2021
Deadline Time: 5:00 pm (IST)

Instructions to be followed:

- 1) Maximum two entries per participant.
- 2) Submit your entries in jpeg format.
- 3) Work should be original and not copied or plagiarised.
- 4) Please upload your photo holding your submitted poster or painting.
- 5) At the bottom of your work your name and submitted to JNU ENVIS RP for Iconic Week Celebration of #AzadiKaAmritMahotsav should be written.
- 6) Participants can provide suitable heading/Slogan for Posters.

Result will be declared online on 10th October, 2021 (Sunday)
E-certificate will be provided to the participants

Organised by:
JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University, New Delhi - 110 067
Ministry of Environment, Forest & Climate Change, Government of India, New Delhi

Iconic Week Celebration (4th - 10th October, 2021)
Theme: 'Avoid & Eliminate the Single Use Plastic'

Result of Online Poster Contest

HUMAR ARIJIT MISHRA
DAV Public School, Bhubaneswar

NIRVIGHNA PEETHA
Sivananda Rajaram School

KUNAL VERMA
Sri A.B.Vojpayee Govt. Arts & Commerce College, Indore

MANNAT PANKUL ARNEJA
D.F. Public School, Ghaziabad

Congratulations to all!

Organised by:
JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University, New Delhi - 110 067

Iconic Week Celebration (4th - 10th October, 2021)
Theme: 'Avoid & Eliminate the Single Use Plastic'

Result of Online Painting Contest

First position:
AISHA PANDA
Buxi Jagababhu English Medium School

Second position:
AVNEEY RAWAT
Magoor School, Noida

Third position:
B. DIVYADHARSHINI
Chinnmaya Vidyalaya, Chennai

Organised by:
JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University, New Delhi - 110 067

OCEAN IS NOT OUR BIN
LITTERING IS A SIN

WELCOME TO PLASTIC FREE WORLD

Do not use Single use Plastic

Save for Animals and Birds

B. Divyadharshini



Fig.4: Poster & Painting Competition widely circulated on the social media platform & submitted by Participants on the theme of Single Use Plastics. Link: http://jnuenvs.nic.in/img/Poster&PaintingResult_IW2021.jpg
Link: <http://www.jnuenvs.nic.in/documents/IconicWeekContestResult2021.pdf>

Day 3: October 06, 2021

Invited Popular Talk on Single Use Plastic by Padma Shri Awardee, Prof. Rajagopalan Vasudevan (Plastic Man of India)

Padma Shri Prof. Rajagopalan Vasudevan, Coordinator TCE ENVIS RP, Dean ECA and Professor Dept. of chemistry, Thiagarajar Engineering College, Madurai, delivered the talk. Prof. U.C. Kulshrestha, Dean SES & JNU ENVIS Coordinator welcomed the speaker and the audience. The Young Holistic leader Ms. Rutvika Kahar representing the student YoHo group, introduced the speaker. Ms. Swati Singh, Programme Officer, executed the programme. The talk was attended by more than 200 participants, through Google-Meet and Facebook Live platforms. The participants included university students, researchers, faculty members and other stakeholders.

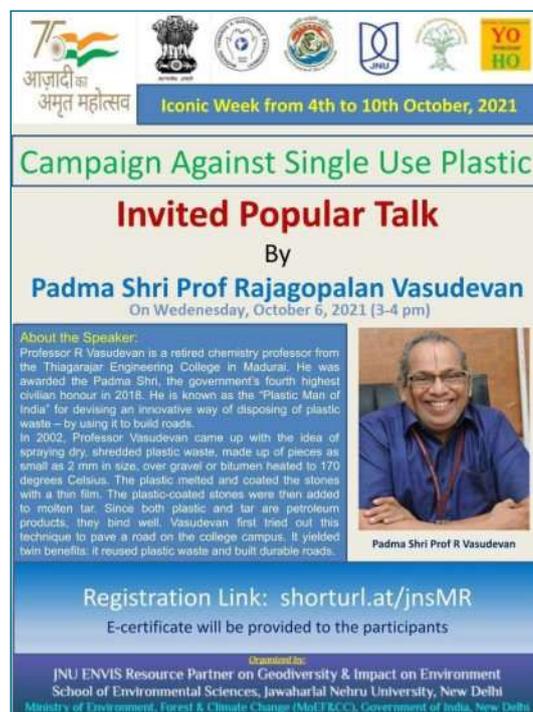


Fig.5: Poster of the talk widely circulated on the social media platform



Fig.6: Prof. Umesh Kulshrestha, Dean & ENVIS Coordinator, SES, JNU & organizers: YoHo Lead & ENVIS Resource Person



Fig.7: Panelists & Participants of the Panel Discussion

PLASTICS Not to Ban, But to Plan
Dr. Rajagopalan Vasudevan (Padma Shri Awardee)
Prof. Chemistry, Dean ECA,
TCE ENVIS RP - Coordinator
Thiagarajar College of Engineering, Madurai.

Pioneer in utilization of Waste Plastic - Recognition

OWN YOUR OWNERSHIP
Change in Attitude
Creations are made by God
God creates no waste - BG
Waste is Man Made due to lack of understanding & application
Active: Waste becomes resource (Dr. Plastic)
Passive: Service Through Sacrifice
As you Think so you Become - BG

Plastic - God's Gift

MARINE DEBRIS
IT'S OUR PLASTIC IT'S OUR PROBLEM

SOLUTION TO POLLUTION - Reuse of Waste Plastics
PLASTONE
PLASTIC TAR ROAD
Other Products

PLASTIC TAR ROAD Laying Process

Performance and Cost Factor

Item	Equivalent Road	Plastic Tar Road	Processing - plants per road
1000m Distance	More than the equivalent value	Within the Budget	Not very much - supported by better value
1000m Depth	More depth 4.00	Less depth 3.00	Due to laying in parallel lines (Surface Voids)
1000m Roughness	More bumps 4.00	Less Bump 3.00	Better binding less rutting and raveling
1000m Soundness	Reduced slightly High 3.00	Reduced Low 2.00	Supported by bonding, less surface effect to water spray off
1000m Density	Medium 2.00	Medium Value 2.00	Better binding

PLASTIC TAR ROAD SALIENT FEATURES - ROAD

- Strength increased by 100% (MSV ~2500)
- No pot holes, rutting and raveling formed
- Withstand heavy load
- Decreased bitumen consumption
- Construction cost reduced
- Value addition to waste plastics
- Nil maintenance cost for more than 7 years
- No effect of radiation like uv
- Life of the road - doubled
- Cost of Road is less
- Performance was very good (CRRI)
- Good at low temperature & rainy area too

PLASTONE
Synthetic Granite
Block from polymer coated aggregate

Application of Plastone Blocks

OTHER PRODUCTS

SUP - BAN Problem / Solution
A RELOOK FOR THE FUTURE POLYMER INDUSTRY

Plastic to Fight Against COVID 19

Growing importance of Circular Economy in industries

Fig.8: Padma Shri Prof. R. Vasudevan, Coordinator TCE ENVIS RP, Dean ECA & Dept. of chemistry, Thiagarajar Engineering College, Madurai

Live Session on the FB page: <https://www.facebook.com/jnuenvis/videos/958835328315908>

Youtube Video link of Event : <https://www.youtube.com/watch?v=DxtfE5r1UZU>

Day 4: October 07, 2021

Online Quiz Competition on Single Use Plastic

Online awareness quiz competition was conducted on 7th October, 2021. School and college students enthusiastically participated, 58 candidates registered for the event.

Iconic Week Celebration (4th - 10th October, 2021)
Theme: 'Avoid & Eliminate the Single Use Plastic'

Online Quiz Contest

Date: 7th October, 2021
Time: 3:00 - 4:00 pm (IST)

Instructions to be followed:

- 1) Prior registration is compulsory.
- 2) Quiz Contest will be organized on Google meet platform online and for exact 30 min.
- 3) The Questions will be displayed on the slides for 20 seconds.
- 4) Participants will have to submit each answer within 20 sec.
- 5) For each correct answer 3 marks will be awarded and for each negative answer 1/3 marks will be deducted.
- 6) Age bar: 15-35 years

Result will be declared online on 10th October, 2021 (Sunday)
E-certificate will be provided to the participants

Organised by:
JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University, New Delhi - 110 067
Ministry of Environment, Forest & Climate Change, Government of India, New Delhi

Iconic Week Celebration (4th - 10th October, 2021)
Theme: 'Avoid & Eliminate the Single Use Plastic'

Result of Online QUIZ Contest

- OM PRAKASH RAJAK**
IIT (ISM) Dhanbad
- DISHA BISWAS**
Maulana Abul Kalam Azad University of Technology
- JAIDEV SINGH**
University College of Science, Udaipur
- SUBHODIP SHASTRI**
Jadavpur University
- PRAVEEN KUMAR**
King George's Medical University, Lucknow

Organised by:
JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University, New Delhi - 110 067

Fig.9: Result of Quiz Competitions on Single Use Plastic.

Link: http://jnuenvis.nic.in/documents/IconicWeek2021_Posters.pdf, http://jnuenvis.nic.in/img/QuizResult_IW2021.jpeg



Fig.10: Online Quiz Competition on Single Use Plastic

Day 5, October 08, 2021

Online Poetry Competition on Single Use Plastic

Online Poetry competition was conducted on 8th October, 2021. School and college students enthusiastically participated, 33 candidates registered for the event.

The image contains two posters side-by-side. The left poster is titled 'Call for Contest on the occasion of plastic awareness week (4th - 10th October)'. It features logos of the Government of India, Ministry of Environment, Forest & Climate Change, JNU, and the 75th Azadi Ka Amrit Mahotsav. The theme is 'Avoid and eliminate the single use plastic'. The date is 8th October and the time is 3:00 - 4:00 pm. It lists instructions for the contest, a registration form link (shorturl.at/gzKN5), and the activity lead, Komal Choudhary, M.Sc. SES. The right poster is titled 'Result of Poetry Contest' and lists five winners with their names, schools/colleges, and medals. The winners are Ishwar Chand (SES, JNU), Mannat Pankul Arneja (DLF Public School, Ghaziabad, UP), Ravindar Kumar (SES, JNU), Wahid Junaid (Anantnag, J&K), and Anna Dominic (Alphonsa College, Pala Kottayam, Kerala). Both posters are organized by JNU ENVIS Resource Partner on Geodiversity & Impact on Environment, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi - 110 067.

Call for Contest
on the occasion of plastic awareness week
(4th - 10th October)
Theme - Avoid and eliminate the single use plastic
Date - 8th October | Time - 3:00 - 4:00 pm |
INSTRUCTIONS
• Poetry should be original and written by you.
• Each participant will be given 5 minutes.
• You can present in hindi or english (Bilingual).
• Poetry should be on the theme 'Avoiding and eliminating use of single use plastic'.
Registration form: shorturl.at/gzKN5
Activity Lead: Komal Choudhary
M.Sc. SES
Organised by:
JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University,
New Delhi - 110 067
Ministry of Environment, Forest & Climate Change, Government of India,
New Delhi

Iconic Week Celebration (4th - 10th October, 2021)
Theme: 'Avoid & Eliminate the Single Use Plastic'
Result of Poetry Contest
1st **ISHWAR CHAND**
SES, JNU
2nd **MANNAT PANKUL ARNEJA**
DLF Public School, Ghaziabad, UP
3rd **RAVINDAR KUMAR**
SES, JNU
4th **WAHID JUNAID**
Anantnag, J&K
5th **ANNA DOMINIC**
Alphonsa College, Pala Kottayam, Kerala
Organised by:
JNU ENVIS Resource Partner on Geodiversity & Impact on Environment
School of Environmental Sciences, Jawaharlal Nehru University, New Delhi - 110 067

Fig.11: Poster of Online Poetry Competition & Result of Poetry Competition on Single Use Plastics

Link: http://jnuenvis.nic.in/documents/IconicWeek2021_Posters.pdf, http://jnuenvis.nic.in/img/PoetryResult_IW2021.jpeg

FB Live Session Video of the Event: <https://www.facebook.com/jnuenvis/videos/355024836379115>

Youtube Video Link: <https://www.youtube.com/watch?v=YLo2Fd3gIVc>

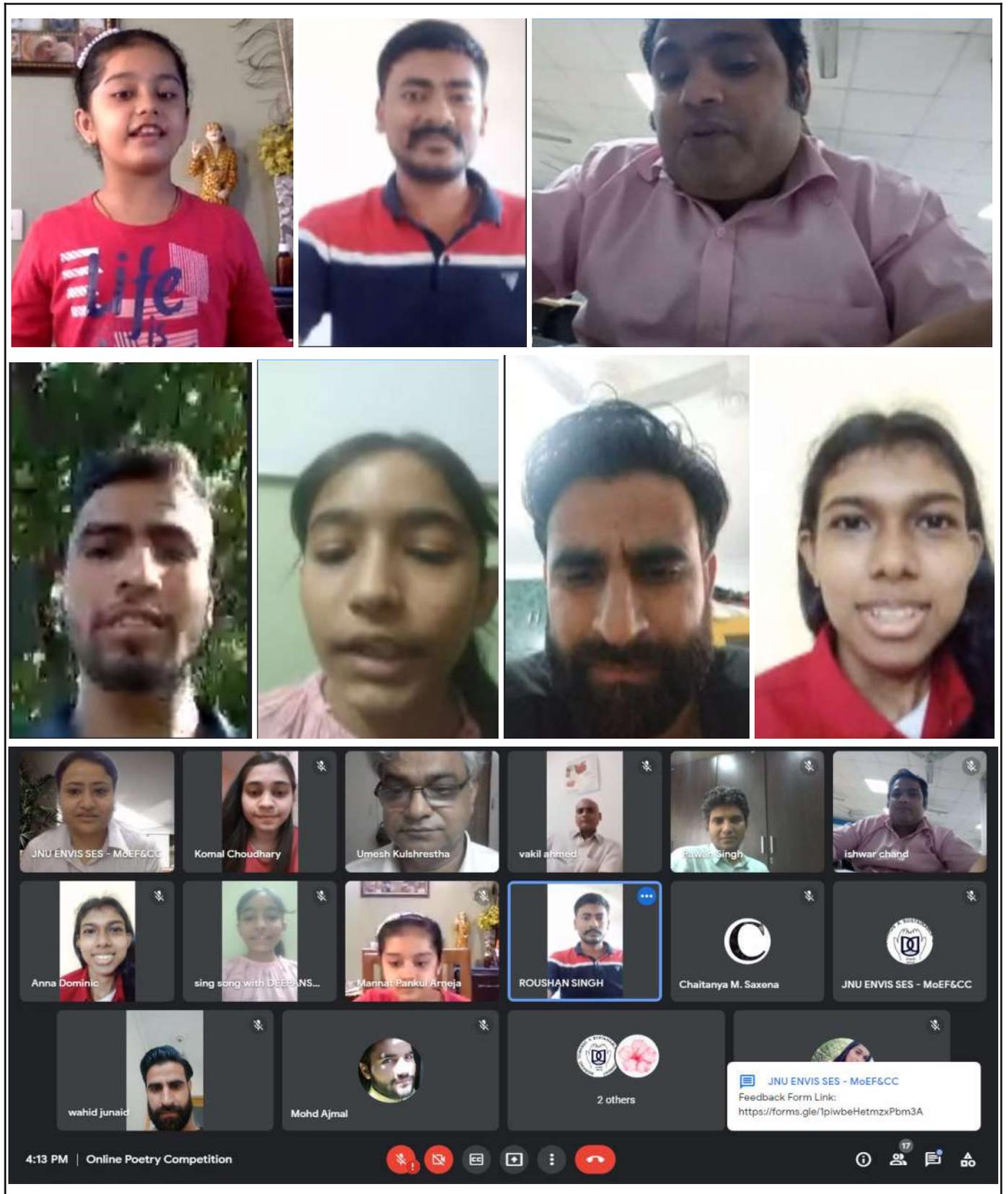


Fig.12: Jury & Participants of the Online Poetry Competition

Day 6: October 09, 2021

Field Awareness Programme on Single Use Plastic

An awareness field programme was conducted on October 09, 2021. Students of JNU & ENVIS staff actively participated in an awareness drive against single use plastic in the JNU campus. Single use plastic was collected and properly disposed off. General public were made aware about elimination and reduction of single use plastic using banners and posters.



Fig.13: Field Awareness Programme/Campaign in JNU Campus on Single Use Plastic
Link:<http://www.jnuenvis.nic.in/PhotoGallery/NewEvents.html>

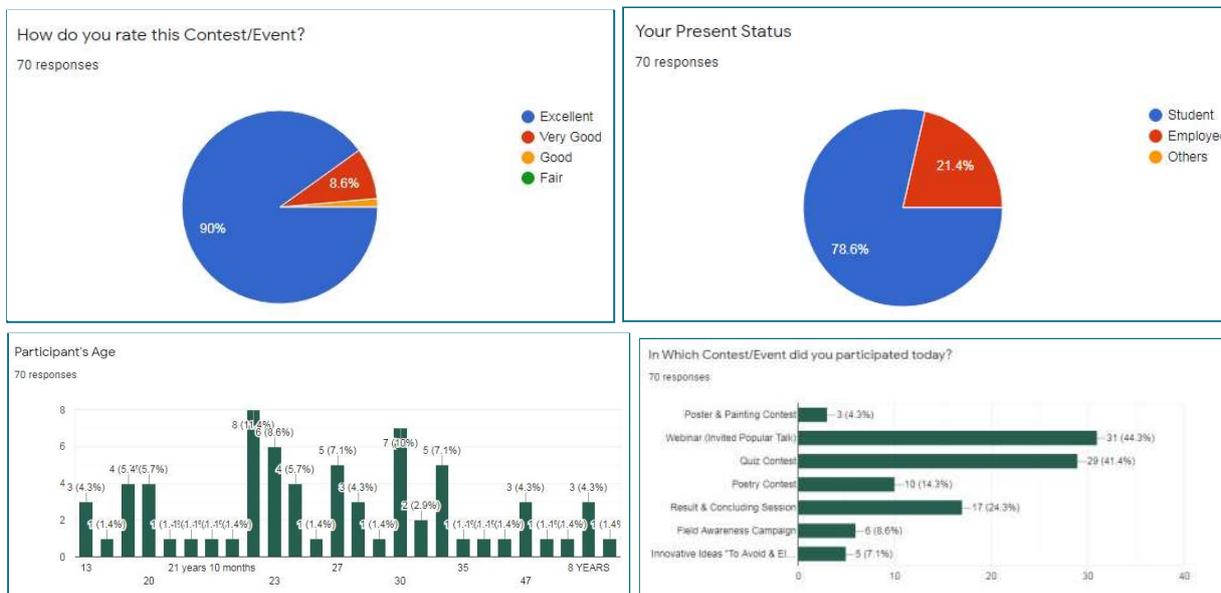
Field Awareness Campaign in Campus Video: <https://www.youtube.com/watch?v=uiMgwvxQ1Jo>
& <https://www.facebook.com/jnuenvisgeodiversity/videos/246973877324669>

Day 7: October 10, 2021

Concluding & Feedback Session

The Iconic week culminated on October 10, 2021. **Prof. U.C. Kulshrestha** (Dean SES & JNU ENVIS Coordinator) made his concluding remarks about the week-long programme and events conducted through the week. **Dr. Usha Mina** (JNU ENVIS Co-coordinator) congratulated on the successful compilation of the events. Results of all the competitions were declared and E-certificates were distributed to the participants. Programme came to an end by vote of thanks by **Ms. Swati Singh** (Programme Officer, JNU ENVIS RP) .

Feedback:



Short Line Feedback
50 responses

Awesome.

Amazing

The event was very nice.

I REALLY ENJOYED THE EVENT AND ALL THE SPEECHES EVERYONE SPOKE AND IT IS A BIG HONOUR TO BE HERE, SPECIALLY THEIR IDEAS.

Thanks and looking forward for more competitive events as well as webinars

It was a pleasure to be a part of the event

Great initiative for encouraging young innovator

Informative talk by plastic man of india

Thanks for the beautiful knowledgeable webinar

Very very Informative session

Very informative and nice session

Excellent and mind blowing talk outstanding

I know new things that road can be from plastics. It's solution for problems. Thanks , it was nice session.

everything went great

Very informative

Very relevant and informative sessions

Amazing session as always

VERY NICE MEETING. .

It was very informative also for ugc net exam to be held

LOVELY PROGRAMME...

Amazing!!

IT WAS AN AMAZING CONTEST, I LIKED ALL THE POEMS

Wonderful platform

Nice platform thanks to all of you

It is very necessary to create awareness among the people. Plz continue to do these type of awareness programme time to time.

It was an awesome campaign where we learnt about the harms of using plastics

It was interesting to know the process of road making from plastic.

Good, time must be slightly more

Very informative session for me.

Nice quiz

Very nice & informative quiz

IT WAS VERY INFORMATIVE QUIZ , LEARNED A LOT FROM THE QUIZ . THANK YOU

thanks for the quiz competition

Highly informative, looking forward for more such quizzes. Thank you!

Nice quiz questions

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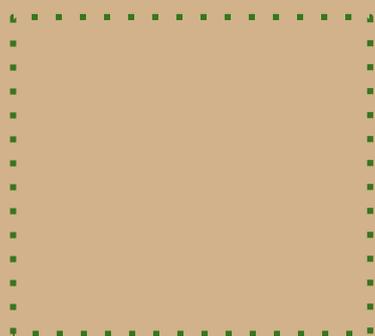
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