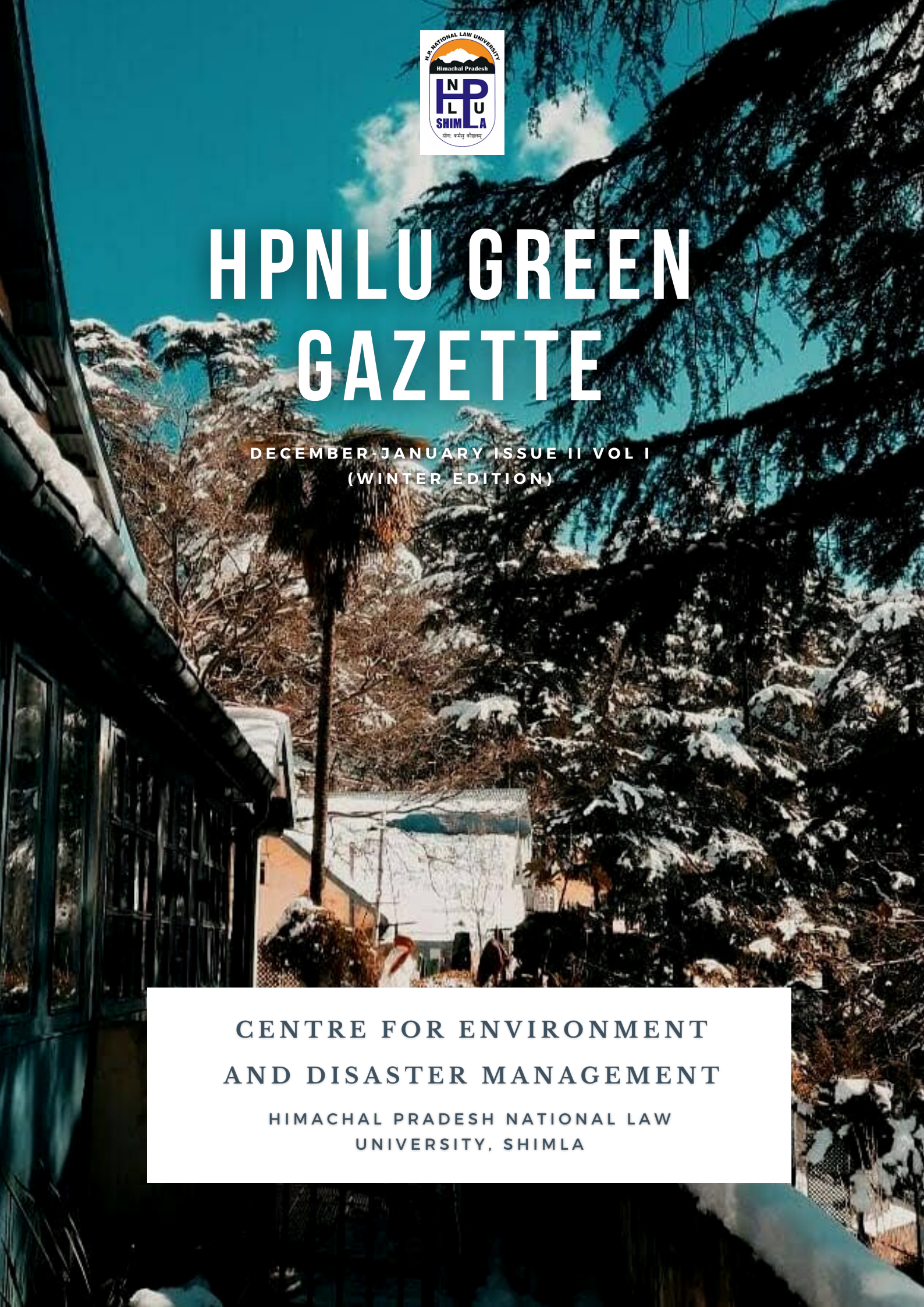

HPNLU GREEN GAZETTE

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CENTRE FOR ENVIRONMENT AND DISASTER MANAGEMENT

HIMACHAL PRADESH NATIONAL LAW UNIVERSITY, SHIMLA

PART ONE

GREEN REPORT

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The Wrath of Nature: Blazing Forests

About the Author: **Saumya is a student at NLU Odisha**

Flora and Fauna are the beautiful gifts inherited by mankind from the mother earth. They nurture us, protect us and have been extremely fulfilling when we turn to them for our endless desires. However, the irony is that our forests are increasingly in news not because of an extraordinary measure or action to protect them but because of the persistent damage being caused to them. The most gruelling calamity which is causing depletion and exhaustion of our nature is forest fire. It is a freely spreading combustion caused by intentional or accidental factors. More commonly known as wild fires. these can be both manmade and natural. However, the after-effects are equally ravaging in both cases. Each year the conflagration destroys 6 to 14 million hectares of fire-sensitive forests worldwide, a rate of loss and damage comparable to that of destructive logging and agricultural conversion.

Forest Fires as a Growing Problem

About 21.40 % of forest cover in India are prone to fires. It is a hazard that affects the health and livelihood of millions of people. According to the 2019 report by the Forest Survey of India, forests in central India and the North-eastern region are the most vulnerable. They pose a threat to an entire regime of flora and fauna disturbing the biodiversity and the ecology of the environment.

These fires spread in three prominent ways. One is surface spread. It happens when the fire gulps small vegetation and other loose debris on the forest floor and spreads along the ground. The second is crown spread. It advances through the top of trees and is known for the fastest spread. They are most common in Coniferous forests. Ground Fire, on the other hand, engulfs the organic litter of the forest floor and moves very slowly but is considered to be the most destructive of all.

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Another important cause is the requirement of fodder for grazing animals. The 12.5 million hectares of land officially classified as permanent pasture land is virtually devoid of grass. Therefore, people try to fulfil most of the grazing requirements by setting fires to forests in order to produce new flushes of grass for their cattle.

The Uttarakhand Wildfire

This act prescribes punishment for deliberately or inadvertently setting fire to a forest. Under this act, it has been made mandatory for all persons who exercise any kind of right in the forests or who receive any stipend from the government to assist in forest fire prevention and control.

Lack of Fund, Cooperation, and Community Support

The policies framed by the government lacks proper implementation. The subject of forest falls in the concurrent list of the constitution of India meaning hereby that both the central and the state government can legislate on the matter. The central government can look into the issues of policy and funding and the state government can work towards the field administration. However, in reality, such demarcation of power doesn't necessarily precipitates to the ground. For proper management of forest fires, prior preparation for forest fires is necessary. There have been continuous complaints regarding lack of funds in order to initiate surveys or research or make budgetary allocations for modern techniques. This inhibits the collection of data which can further be used to identify the areas at risk.

The officials mainly responsible for vigilance shed their responsibility and at times often adopt indifferent attitude. The relationship between the forest department and local population is marked by hostility and conflict. There is a feeling among people that they are being denied their traditional rights to utilise fuel and fodder from the forest. Hence, they become apathetic to the development of forests and refuse to cooperate with the officials. The government needs to formulate an effective program which involves the active participation of rural communities who are the real stakeholders.

While several laws have been framed to deal with forest fires, the similarity in all of them is that it didn't do enough for the forest communities. The most favourable solution in order to ameliorate the strained relationship between the local population and forest officials is the Joint Forest Management Programme which still faces the issue of proper implementation is several areas.

Joint Forest Management Programme

JMP is a partnership arrangement between the forest department and local communities. Through an agreement, the local communities assume the responsibility to protect and manage the forests and in return for this, they are given access to the products and share of the income from the area. An Institution named JFM cell has also been established in the Ministry of Environment and Forests to monitor the impact of the JFM programme.[1] JFM particularly adopts a Pro-active approach and focuses on taking preventive measures before the beginning of fire season. JFM has enhanced the income-earning opportunities – especially from the collection of non-wood forest products. Such Programmes also focus on Afforestation and Reforestation in order to improve biodiversity after a severe conflagration. In many states, JFM has broadened their intervention to improve the overall development of the villages, especially through investment in schools, agriculture development, etc. Considering the enormous diversity which exists in different regions, the outcomes of JFM has been varied but its positive impact on the condition of forests is unparalleled.

Mussoorie Resolution

Since the formation of the state in 2000, it has lost 44,518 hectares of land to forest fire. Also, not much has changed since the year 2000. Fire frequency since decades, has increased with human-induced climate change. This is evident from the data as in the year 2016, the state was worst hit. The fire razed unchecked. The unabated fires gulped 4048 hectares of forest and took many lives. After several days of inaction, NDRF team was deployed and Mi helicopters fitted with Bambi buckets doused the fire.

While the world **is** battling with the worst pandemic called Covid-19 which has already taken its toll on the entire mankind, things could not have been worse for Uttarakhand. The state like every year, was hit by another forest fire of its kind in May 2020. 51.43
hectares of the forest cover was gutted. Within 4 days, the area under forest fire reached 2037.77 hectares.

If we look into the main reasons for its spread, high atmospheric temperature and low humidity created a conducive environment. This reduced precipitation and dwindled snowfall and rainfall in the region. Another significant reason was the presence of Pine trees in large areas which are highly susceptible to forest fires. These trees produce sap, also called rosin. This sap is highly flammable and on burning, it produces enormous amount of heat.

But there are several underlying reasons for its inception and spread as well which needs to be addressed. According to forest officials, aggrieved poachers who feel crippled by the Anti-poaching measures and motivated by perverse economic incentives also set fires to forest. To a large extent, the forest department depends on forest guards for the maintenance and upkeep of forests. The administrative unit which is given to them for surveillance is usually so large that it becomes nearly impossible for them to take proper care and control. As a result, they work for 18 20 hours a day during the calamity but still are unable to control the fire and mitigate the effects. At times, they are ill-equipped as well.

Where the Problem Lies?

While Forest fires of the reserved forest areas are reported, those of the panchayat and civil forests easily go unreported. Every year, Uttarakhand forests bear the brunt of devastating forest fires, especially in the region of Garhwal and Kumaon. The majority of areas in these regions comprise civil and panchayat forests. It can be easily conceived that the damage suffered in reality is far more grave than the proportion in which it is reported. This year several fake images were circulated on social media showcasing the exaggerated and magnified images of forest fires. While the state government declared the images to be fake, the problem is genuine. They could not deny the pernicious effects of the fire.

Forest Policies and Acts

-National forest policy, 1988 The revised National Forest Policy emphasizes the protection of forest against fire grazing and encroachment and suggests the adoption of upgraded and modern management practices to deal with forest fires.

Indian Forest Act, 1927

A Conclave was held in Mussoorie, Uttarakhand which saw the participation of 11 Himalayan states namely Arunachal Pradesh, Nagaland, Assam, Uttarakhand, and several others. The conclave was initiated by the government of Uttarakhand to discuss the issues related to the Indian Himalayan region in the 15th finance commission.11 Himalayan states made a unanimous call that they should be provided with Green Bonus from the center. Since large swathes of land fell into eco-sensitive zones where developmental activities cannot be carried out, they demanded an increase in budget allocation so that bio-diversity can be preserved more efficiently. They said that there were several problems indigenous to them and hence, there should be a separate ministry for the same at the center. Finally, the Mussoorie resolution combining the same was adopted.

It is important to note here that the Agenda of Mussoorie Resolution is not just limited to dealing with forest fires but also takes into account the need for water conservation, saving rivers, glaciers, and water bodies which are depleting as a result of climate change. It also aims at evaluating the present management practices that fail to serve the purpose.

Way Forward

It is imperative that the government should consolidate the databases and increase their reliability. There should be more emphasis on the research work so that the future course of action can be formulated. The characteristics of a particular area should be determined, there should be an assessment of the vulnerable areas which can catch fire easily and accordingly fire plans should be developed. The management of fire has more to do with ways of cooperation than with technological sophistication. Forest departments need to invest more in the promotion of management systems and strengthen the involvement of key stakeholders, especially local communities, in fire management.

Different trees and shrubs have distinct levels of flammability hence, the areas facing potential risks should contain trees that are relatively less inflammable and can reduce the risks of forest fires. Special emphasis should be laid on creation of natural as well as artificial barriers like tracts, firebreaks and water reserves.

There should be an installation of a Fire forecasting system, usage of satellite imageries, and a Fire danger Rating System for early detection of forest fires. The Forest department should engage in a professional approach to make a realistic assessment of the damage. The communication network should be extremely efficient so that there can be a quick flow of information and movement of men to the fire site.

Awareness should be created among people through stage performances and posters regarding the ill- effects of a forest fire. For this, the assistance of local NGOs should also be looked for. The forest laws should be made more stringent to deter people from engaging in intentional acts that cause fires.

Instead of adopting a “one size fits all” strategy that emphasizes fighting forest fires through advanced methods, the government should focus on the evaluation of a situation according to its own ecological, political, and economic circumstances. This will address the underlying causes that lead to the repeated occurrences of forest fires.

Conclusion

For decades, we have been grappling with forest fires and to a large extent we choose to turn blind eye and leave everything upon God.

The policy measures and the changes introduced today will not give immediate but steady results. It will take time and its own pace. What we can ensure is proper implementation, adequate surveillance and a full-fledged community participation. Its high time now that the citizens realise their duty towards forests as well. The protection of our forests is not only essential from ecological point of view but from a socio-economic perspective too. For a developing country like India, which has a total forest cover of 712,249 square kilometres, these forests acts as a resource base for hundreds of thousands of poor for their sustenance especially the forest dwellers and tribals. Also, the relationship between villages and forest department should allow local variations and flexibility. Modern techniques, though effective are not enough. At present, analysis begins when a fire commences. A much better response would be to work out the amount of effort and resources in fire- prone areas beforehand. It's never too late but we must keep in mind that its now or never.

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Do You Know

Every day, 50 to 100 species of plants and animals become extinct as their habitat is impacted by human activities.

Covid-19 or Plastic Pandemic: Renaissance of Single-Use Plastics

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"The beauty and genius of a work of art may be reconceived, though its first material expression be destroyed; a vanished harmony may yet again inspire the composer; but when the last individual of a race of living beings breathes no more, another heaven and another earth must pass before such a one can be again".

The COVID-19 pandemic has become a seismically disruptive concern. It has caused unprecedented impact in all domains of life. The virus has forced us to evaluate the relation between human activities and diseases. It is estimated that about 75 per cent of infectious diseases in humans like Zika, Sars, Ebola, Swine flu and Nipah virus are zoonotic, i.e. they are transmitted to people by animals. Therefore, if the wrecked and unmanageable relationship of humans with nature embracing mass deforestation, unregulated wildlife trading, and factory farming prevails, it could lead to further potential pandemics.

On one hand, due to less pollution and Industrial oppression, nature has been rebounding ever since lockdowns have been implemented. On the other hand, there has been the salvation of single use plastics to combat the spread of Corona virus. In recent past, plastic pollution has emerged as the most damaging concern for the environment.

Many nations have also imposed ban on single-use plastics due to their excruciating harm to ecology. There have also been systematic changes in the attitude of people to avoid disposables. Nonetheless, the role of disposables has become quintessential in the upheaval fight against the virus.

The junction of these two fields has led to a vicious cycle where more damage is being done to the environment in our effort to restrict the spread of the virus and such environment degradation can lead to another catastrophe.

Lethal Nature of Plastic- Battle of Toxicity

Plastic has infiltrated and intruded into all spheres of lives and its large-scale use has proclaimed a death knell on the environment. It is anticipated that an extra 33 billion tonnes of plastics will be added to Earth by 2050 due to its cheap manufacturing cost, malleability, and adaptability in all domains.

The reasons to limit plastic use are both ethical and crucial. The protection and preservation of the environment, ecological balance of nature free from pollution and sanitation as an integral part of the right to life has been recognized by The Apex Court within the ambit of Article 21 of the Constitution of India.

Plastic is extremely resistant to degradation and its influx poses a risk to humans and the ecosystem. Its toxicity has the potential to cause severe harm to vital human organs. The worrisome fact is that the production, recycling, and incineration of plastic items emit about 400 million tons of CO2 each year. It is estimated that if these rates persist, the contamination of nature with plastic will reach 12,000 million tons by 2050. Also, nearly 91% of polymer instead of being recycled is dumped in landfills. The situation has deteriorated with the recent precipitous drop in oil prices making virgin plastics much cheaper and further harming the viability of plastic recycling.

The humongous quantity of plastic used and reduced recycling capability is leading to more plastic pollution.

The other method of plastic waste disposal i.e. incineration is not unscathed either. Not only does burning plastics emit toxins, but it also fails to obliterate the plastic, thus, leaving substantial levels of nano- and micro-particles. If plastic materials having the slightest amount of chlorine in its composition are incinerated, it leads to production of dioxin, which is a known carcinogen. It weakens immune system and causes serious defects like endometriosis, birth defects, and low testosterone levels. It is extremely challenging to recycle microplastics (<1 mm) as they fall into the crevices of recycling machinery. They can be ingested and can further traverse through the food chain.

Untreated Plastic waste causes a plethora of problems when it leaks into the environment. This is explicitly problematic with single use plastics as they are littered at the drop of hat. It can clog sewers and can provide breeding grounds for mosquitoes, pests and other microorganisms, thus increasing transmission of vector-borne diseases like malaria.

India has implemented Plastic Waste Management Rules, 2016 to curb the unabated proliferation of plastic waste. The rules lay down duty on local bodies to develop infrastructure for segregation, collection, storage, transportation, processing and disposal of plastic waste. Gram Panchayats in addition to the above-mentioned responsibility have been stipulated to create awareness among stakeholders about their responsibilities and to ensure that plastic is not burnt in open. The rules furthermore convolute that waste generators shall take steps to minimize plastic waste, appoint registered waste pickers and authorize local bodies to collect user fee as

may be specified in the bye- laws of the respective local bodies for plastic waste management and allied facilities. Despite of the legislation in place, the problem of plastic pollution is ever increasing and the apocalypse of Corona Virus has made a downhill progress on plastic pollution.

Business Propaganda or Necessity: Health v. Environment

The use of plastic has become inexorable and the only preventive measure for mitigation and suppression of this global health crisis. The preponderance of evidence suggests that the virus primarily transmits by respiratory droplets. Therefore, protective equipment (PPE) such as gloves and masks for health workers, disposable plastic components for life support equipment, respirators, and general plastic supplies, social distancing and better hygiene practices could reduce the transmission of infected droplets. There has been a constant rise in demand for plastic-based PPE equipment due to its non-proliferation capability.

The subliminal use of polymers has also risen in as much as many people have been ordering more food deliveries and takeaway, thereby increasing amounts of disposable meal boxes, which are commonly made of PP or polystyrene (PS). The increase in e-shopping has put more plastic to use for packaging products to avoid breakage in transportation.

A glut of disposables creates massive upstream environmental disruptions and downstream waste disposal problems. The medical equipment production sector has reported an increase in orders of plastics between the range of 10 and 20%.

According to the WHO, approximately 89 million medical masks were needed to contain Covid-19. The disaster has suffused the global production of facemasks that are manufactured using polymeric materials like polypropylene, polyurethane, polyacrylonitrile, polystyrene, polycarbonate, polyethylene, or polyester. In such circumstances, plastic has become the foundation of medical equipment.

These shifts have exacerbated plastic related environmental issues, which already existed even before the pandemic occurred. Single use plastic waste is more problematic in present situation as is it may have residual pathogens that could spiral infection if not properly destroyed and stalling of waste recycling by many countries due to fear of transmission has added more fuel to the ever burning pyre.

Plastic has become a necessary evil by scaling a new dimension in consumers' perception mainly due to the contamination concerns. The Plastics Industry Association claims that Plastic is the Hero in pandemic as it is indispensable in the effort to stop the spread of the virus. Plastic has been characterized as a critical component in keeping families healthy, food fresh and protected, and healthcare workers safe. The petrochemical refinery companies have further funded studies to promote plastic use. According to recent researches, it has been found that plastic surfaces remain infectious with the virus much longer than materials like stainless steel, copper or cardboard. Though disposability is regarded as an important advantage of Single-use items but that does not make them safe because they can be touched by many people and reusables can be as safe as disposables if they are washed properly. Instead of being the problem, plastic has masqueraded itself as a solution.

The plastic ban has been lifted in places like New York, New Jersey in the US and Tamil Nadu in India, despite various studies pointing at plastic being more perilous, and the plastic industry has been excoriating reusables as life-threatening.

This lobbying by industries has become a pushback against single use ban and merely a lucrative gimmick to stop them from being an outcast in the manufacturing Industry. The urge for profiteering has outweighed the moral dilemma of protecting environment.

However, in a situation where use of plastic has become synonymous with health, hygiene and safety an important questions that needs to be answered is whether plastic is really the need of the hour to fight the pandemic or is it just a profitmaking tactic for plastic manufacturing companies fighting for their growth and profit in these contemporary times of sustainable development.

Environment Sustainability: A Way Forward

The process of sustainable development involves economic, environmental, and political aspects. It implies that the present generation should use resources in a judicious manner so that future generations are able to reap the same benefits and enjoy the same quality of life.
The UN member states had adopted The Sustainable Development Goals (SDGs) with an objective to improve the sustainability by the year 2030 through its 17 objectives like Sustainable consumption and protection (Goal 12), Sustainable cities and communities (Goal 11) etc. which however is lagging behind its target. COVID-19 is causing worrisome effects on the sustainable development prospects and the global economy. To overcome the loss faced during this period, changes in personal habits and consumer attitudes are required for a meaningful shift towards living in consonance with nature. The following ways to reduce plastic pollution should be kept in mind:

- Addressing the misconception that recyled products are not hygienic
- Proper disposal of plastic waste, specially medical equipment
- Balanced relationship between humans, wild animals and nature
- Disposals made from biomass resources, biodegradable or compostable plastics
- Develop new business models for collection and sorting of plastic waste
- New technologies to recycle mixed plastics
- Focus on methods of Green Recovery

The Convention on International Trade in Endangered Species of Wild Fauna and Flora, also called CITES an agreement between governments that regulates the international trade of wildlife and wildlife products. However, its execution is left upon the countries with no binding force and outdated policies, which only adds up to another step being taken on papers. Decisions like these need to be executed more seriously for Future-proofing sustainable recovery and sustainable development. While this pandemic is temporary, plastic pollution could be long lasting and can shift us towards a permanently unsustainable environment if urgent steps aren't taken.
According to the UN, nature is sending us a message and humans would do well if they heed to it. Further, plastic is just a part of the problem of unsustainability, as mentioned before the major reason of occurrence of this pandemic is because of unbalanced relationship between humans and nature which is caused due to illegal, unregulated and high-risk wildlife trade and consumption, deforestation, unwanted land conversion etc. which need to be stopped immediately. The situation demands a restorative equilibrium between humans and nature. Sustainability and health can go hand in hand by making a concerted effort and determination to create a healthier and prosperous planet for future generation and to prevent any subsequent pandemic(s).

Bio-Medical Wastes Treatment Mechanism Of Covid-19: A Report

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Bio-medical waste are wastes containing contagious materials. These wastes are generated from the facilities like hospitals, pathology labs, dispensaries, blood bank, etc. People have to be a careful as Covid-19 is a new virus, which can be easily transmitted through contact of one person to another. Covid-19 medical wastes such as PPE kits, Gloves, Mask, etc. should be carefully disposed so that people don't get infected from it. Covid-19 has become a major issue at present as it is a new and easily transmitted virus and no established waste treatment mechanisms has been developed in the world. This study is to analyze how we can deal with the medical wastes of the covid-19 and to study the rules and regulation in relation to such wastes. This study helps to educate some of the person in the society how to dispense Covid-19 wastes and they can also protect the environment by disposing the wastes in the right way.

Introduction:

"There is no such thing as 'Away'. When we throw anything away it must go somewhere."

-Annie Leonard

Bio-medical wastes are wastes produced in the research institution, healthcare teaching institution, blood banks, etc.

Bio-medical waste, also known as infectious waste or medical waste is defined as waste generated during the diagnosis, testing, treatment, research or production of biological products for humans and animal. These contains bodily fluids, any parts of the body, injections, sharp metals, bandages, cottons, etc.

The SARS-CoV-2 virus or Covid-19 is a serious issue in today's world and many countries are been affected from this virus as it spread across at least 190 countries. This virus was first identified in the "city of Wuhan, China" in December, 2019. This epidemic was regarded by the World Health Organization (WHO) as public health emergency. According to WHO Report, 5.91 million cases has been detected in the world, resulting to 3, 64,000 death but the good news is that 2.49 million has been recovered from this deadly virus. The cases of the Covid-19 has increasing day by day. The active cases of coronavirus has increased to 10 million and cases of death has increased to 502 thousand as of early July, 2020.

In India, till today, 626k people are infected with Covid-19 and 380k have been recovered and 18,213 people died. According to the "Indian Council of Medical Research (ICMR) in India", total collective 83, 98,362 samples have been tested till June 28, 2020 and 1,70,560 samples have been tested positive.

Guidance of World Health Organisation for Management of Covid-19 Waste

The world health organisation (WHO) has taken the Covid-19 issue very seriously because this virus has affected the world in a severe manner. The WHO has suggested some technique to dispose the medical waste which was coming out from the Covid-19 patients. The wastes which are coming out from the corona patients are very dangerous because there is the maximum possibility of transmission of this virus by the waste, if the waste is not properly dispose of hen it will affect the people near to that area.

The "Centre for disease control and prevention (CDC)" has suggested proper inquiry on the covid-19 wastes.

The "Occupational safety and health administration (OSHA)" is providing worker with the safety technique how to deal with the waste. The CPCB (Central pollution control board) said that "biomedical wastes of the quarantine centres must be tied in a yellow coloured bags." The WHO also suggests that the "used plastic aprons of the medical warriors should be cleaned by the soap water and decontaminated with the sodium hypochlorite solution of 0.5%." The "gloves made of nitrile or latex" should be used for one time only and hand sanitization should be used after removing of the PPE.

Safety measures to deal with the dead bodies of the COVID-19 Patients:-

However, the imparting fear of COVID-19 is very low from the deceased body. But the health workers should adopt precautions every time. "Health care workers or mortuary workers/staff preparing the dead body should wear: scrub suit impermeable disposable gown, gloves mask, face shield, etc. After the use of PPE the same thing should be dispose of properly".

The body of the deceased person of the COVID-19 patients should be wrapped in a cloth and transfer the body as soon as possible to the mortuary area.

Initiatives Taken By the Government of India in Dealing with Covid-19 Wastes

In the Due to COVID-19 pandemic period, the Central and State Governments have taken very significant measures to control the wastes of "quarantine centers or camps, isolation wards, sample collection centers and laboratories". Some of the measures are point out below:

India had legislation like Bio-Medical Waste Management Rules, 2016 to deal the bio-medical waste but the Central Pollution Board of India provided guidelines to ensure that the waste generated specifically during testing of people and treatment of COVID-19 patients is disposed of in a scientific manner. According Biomedical Waste Rules, "Bio-medical waste is any waste that is generated during the diagnosis, treatment or immunisation of human beings, animals or research activities etc. "It could include human tissues, items contaminated with blood, body fluids like dressings, plaster casts, cotton swabs, beddings contaminated with blood or body fluid, blood bags, needles, syringes or any other contaminated sharp object."

The CPCB gave guidelines for proper disposing of wastes produced in treatment of COVID-19 patients. It deals with measures to dispose waste of COVID-19 safely generated in "hospital isolation wards, testing centres and laboratories, quarantine facilities and homes of suspected patients". These WHO, MoH and FW and other concerned agencies brought these Guidelines. The guidelines are:

A. ISOLATION WARDS:

1. Maintain separate "colour coded bins or bags or containers in Isolation wards" and conventional disposal according this guideline with BMW Management Rules, 2016.
2. Use double-layered bags for collection of wastes marked as "COVID-19".
3. "General waste not having contamination should be disposed as solid waste as per Solid Waste Management Rules, 2016".
4. Maintenance of record of waste generated in the COVID-19 isolation wards.
5. Daily disinfected the inner and outer surface of "COVID-19" waste containers or bins or bags or trolleys with 1% Sodium Hypochlorite (NaClO) solution.
6. The confirmed patients' who is not capable of

using toilets, their excreta should be collected in the diaper and placed it in yellow bins or bags or containers.
However, for bedpan, the faeces should be washed in the toilet and cleaned with a neutral detergent and water, disinfected with a "0.5% chlorine (Cl) solution", and rinsed with clean water.
7. Red bags for collection of PPEs such as "goggles, face-shields, splash proof apron, Plastic Coverall, Hazmet suit, nitrile gloves".
8. Yellow bags for the collection of used masks, head cover or cap, shoe-cover, disposable linen Gown.

B. SAMPLE COLLECTION CENTERS AND LABORATORIES:
Red bags for collection, according to BMWM Rules, 2016, of "pre-treat viral transport media, plastic Vials, Vacutainers, Eppendorf tubes, plastic Cryovials, Pipette tips".

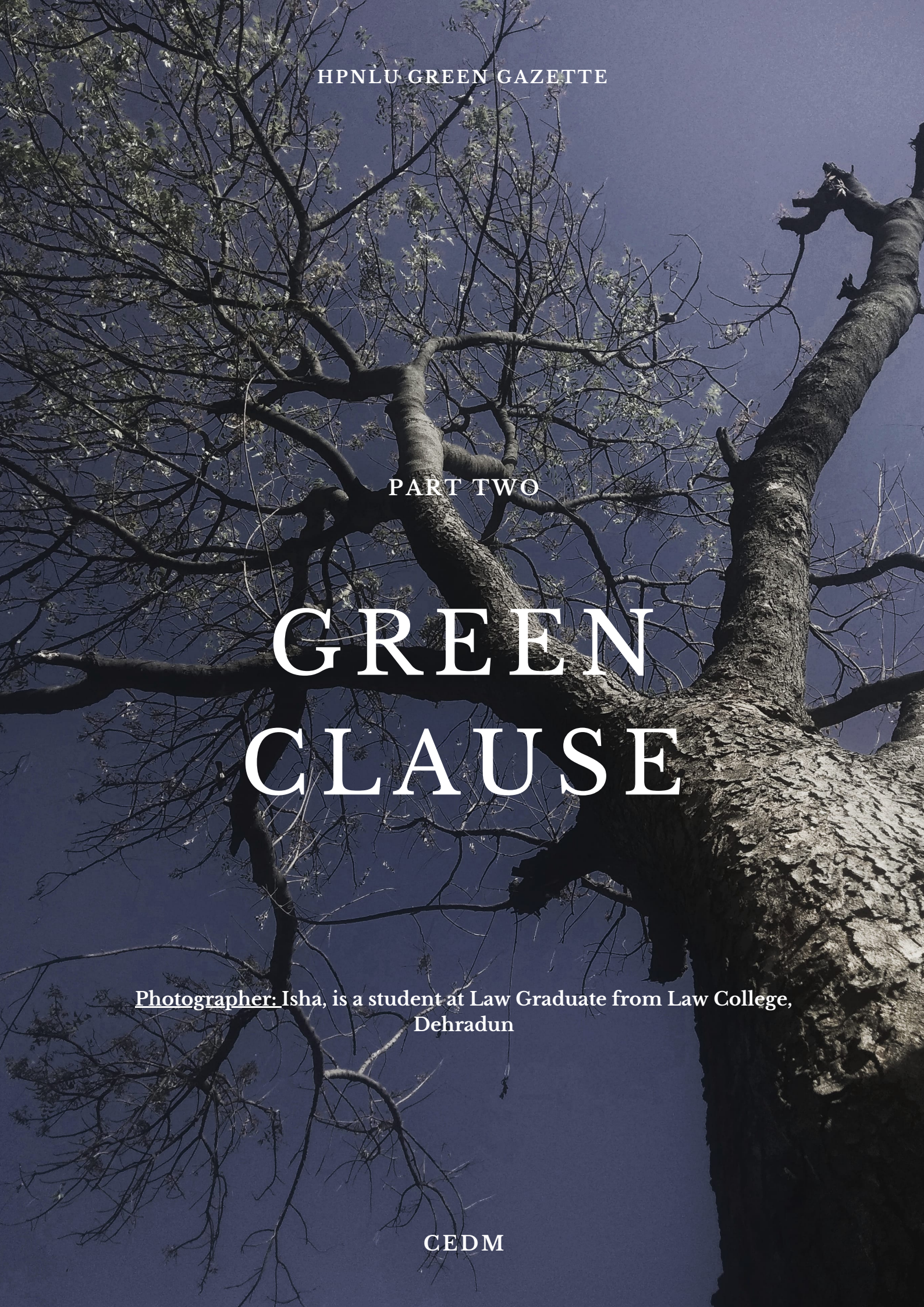
C. QUARANTINE CENTERS OR CAMPS OR HOME:
1. Collectors, identified by Urban Local Bodies (ULBs), should collect the general solid wastes produced in quarantine centers or camps should be handed to the collectors or those wastes can be disposed of through other local methods.
2. Biomedical wastes of quarantine centers or camps should be collected in double-layered yellow colored bags.
3. Persons Quarantine camps or centers should contact the CBWTF operator to collect biomedical wastes.
4. Persons quarantine at home or Home-care should contact local bodies to collect the wastes in the yellow bags.

D. COMMON BIOMEDICAL WASTE TREATMENT FACILITY (CBWTF)
1. The workers are given "PPEs including three layer masks, splash proof aprons/gowns, nitrile gloves, gum boots and safety goggles".
2. Maintenance of records for "collection, treatment and disposal of COVID-19 waste".

3. After every trip, dedicated vehicle used to collect COVID-19 ward wastes should be "sanitized with sodium hypochlorite or any appropriate chemical disinfectant".
E. OBLIGATIONS OF SPCBS/PCCS:
1. They should maintain records of COVID-19 treatment wards or quarantine centers or quarantines homes in respectives States of India.
2. Collection and disposal of biomedical waste properly according to BMW Rules 2016 and SoPS given in the guidelines.
3. In states, where there is no access to CBWTFs, they should follow provisions of BMWM Rules, 2016 and these guidelines and disposed in deep burial pits of yellow containers or bags or bins.
F. OBLIGATIONS OF URBAN LOCAL BODIES:
Trained a team of workers for "sanitization, collection of biomedical waste and precautionary measures" to handle biomedical waste and they should engaged in door-to-door, waste collection, waste deposition centres and quarantine homes.
G. MANAGEMENT OF WASTE WATER FROM HEALTH CARE FACILITIES (HCFs) OR ISOLATION WARDS:
The Sewage Treatment Plants operators and HCFs should continue to disinfection of treated wastewater and no utilization of treated wastewater in utilities within HCFs.

Conclusion

The COVID-19 is regarded as dangerous because it is easily transmitted and affect the body of the people badly. The Government has initiated many measures to control this virus and to protect the people of India from getting infected. However, the number infected people is rising highly and this indicates increase in wastes produce by the Quarantine camps or wards or homes, isolation wards, etc. The treatment is also necessary because the waste can infect other people. Though many initiatives have been taken by the Government of India, we can see people throwing away their masks and others kits here and there and thus harming the nature and also infecting other non-infected people. Therefore, the Government of India should
stringent the rules and guidance implement by them.



HPNLU GREEN GAZETTE

PART TWO

GREEN CLAUSE

Photographer: Isha, is a student at Law Graduate from Law College, Dehradun

CEDM

The Overview of Corporate Environment Accountability in India

About the Author: Madhulika Bhatnagar is working as an in-house counsel with a leading FMCG company

Introduction

Climate change and environmental degradation is a global phenomenon which not only affects human health, environment and natural resources but is also a recognized economic threat according to the UN Sustainable Development Goals 2030. The major cause for environmental degradation includes urbanization, over-population, improper waste disposal, deforestation, exploitation of natural resources and industrialization.

It is estimated that environmental degradation may result in a global economic loss of 368 billion GBP a year by 2050. At the domestic front, India is facing a land degradation of nearly 30% of its land area. The loss of crop yield arising from such land degradation is estimated to contribute towards an annual 2.5% Gross Domestic Product (GDP) loss.

Despite, the severe economic and environmental ramifications of desertification, pollution, increasing greenhouse emissions and environmental degradation, multinational corporations and national companies are hesitant in adopting environment friendly policies. Though domestic governments and international organizations are adopting a pro-active stance in environment protection, till corporations and companies opt for an eco-friendly management approach, the issues of climate change and environmental degradation cannot be effectively handled.

Corporations rely on natural resources for their manufacturing and production processes. Their exploitation of natural resources is not limited to their own countries. These corporations heavily rely on raw material imports from other countries, especially developing and under-developed countries, where subsidies and bilateral provisions permit them to evade their environmental obligations. Excessive use of natural resources and depletion of the surrounding environment arising from the acts of the corporations make them culpable for the resultant environmental degradation.

Corporate Environmental Accountability is a legal issue which is often briefly covered in environmental legislations, bilateral agreements and treaties, yet examples of its practical application are limited. This concept finds its place in both international and domestic legislations dealing with environmental issues however; internationally it is very rare to find cases where corporations are held accountable for their actions.

The legislative provisions and judicial activism in India has assisted the government in holding corporations liable for environmental damage which is caused by their business activities. Besides adopting a pro-active approach towards corporate environmental accountability, the Indian government has also adopted the concept of Corporate Social Responsibility with the aim of utilizing the corporate resources to prevent environmental degradation.

Corporate Environmental Accountability

The concept of Corporate Environmental Accountability arises from the common law principle which is popularly known as the "polluter pays principle". The Polluter Pays Principle imposes the liability for environmental degradation on the party which is responsible for the same. By virtue of this principle, the liability to compensate not only extends to monetary compensation for victims of pollution but also includes the payment of costs which are required to restore the resultant environmental damages. Thus, the liability of the polluter under this principle is two-fold – (i) compensation to the victims; and (ii) costs of ecological restoration.

Under public international law, environmental accountability is not directly imposed on the corporations. Rather, obligations are imposed on state actors to develop domestic laws which impose such liability on multinational and national corporations conducting businesses within their territories.

The Rio Declaration requires the national authorities to utilize economic instruments with the approach that the entities responsible for pollution must bear the economic costs of the same. This must be done without causing harm to public interest, international trade and investment.

Further, the obligation to take necessary precautions to prevent environmental degradation and the liability to pay for the same is also incorporated in the European Community Treaty.

Domestically, the provisions of legislations such as The Environmental (Protection) Act, 1986, the Air (Prevention and Control of Pollution) Act, 1981, the Water (Prevention and Control of Pollution) Act, 1974, the National Green Tribunal Act, 2010, the Wild Life (Protection) Act, 1972 and the Public Liability Insurance Act, 1991, hold companies and corporations liable for environmental crimes.

By virtue of these provisions, every person who is directly in-charge of the company or is responsible for the conduct of the company's business is held liable for the violations of the provisions of these legislations and is accountable for the payment of penalties that are imposed therein.

In addition to the aforesaid legislations, the courts in India have already recognized corporate environmental accountability. Where certain industries were causing pollution by improper disposal of toxic effluents, the Supreme Court held the industries accountable for payment of compensation for damage caused to the villagers of the affected area and for pollution of soil and the underground water of that area.

Additionally, the Supreme Court of India has recognized the right to have access to clean and healthy environment which is free of pollution as a fundamental right under Article 21 of the Constitution. Thus, the Indian legal system exhaustively covers the concept of corporate environmental accountability and pro-actively implements the same.

However, the story is a little different at the international level where victims of environmental degradation often find it difficult to hold corporations liable for environmental damage in transboundary litigations. Litigations against corporations and companies cannot be initiated at international judicial forums thus any action which has to be initiated against corporations for environmental law violations has to be initiated in the national courts of the countries where such violations have taken place.

Generally, a domestic litigation can be initiated against a corporation for transboundary environmental damage in the courts of a state where the victims are domiciled, or where the corporation has its registered office/place of business

or where the activities of the corporations have led to environmental damage.

These litigations are often initiated by the general public who are affected by the activities of the corporations. Majority of the manufacturing and production plants of multinational corporations and enterprises are located in developing and under-developed countries due to their trade subsidies, benefits and judicial systems. Thus, when the victims of environmental degradation initiate litigations against corporations in the national courts of these countries, the corporations often escape liability due to ineffective judicial systems, lax enforcement mechanisms and corrupt governmental authorities.

This approach is evident from the decision of the US Supreme Court in a case where claims were initiated against a US incorporated company by Nigerian environmentalists under the Alien Tort Statute for environmental degradation caused by the company in Nigeria. These claims were dismissed by the court on the ground that the Alien Tort Statute is not applicable to conduct of corporations outside the US.

Further, the provisions of bilateral investment treaties (BITs) which are executed between governments and international corporations often include provisions which restrict the ability of national agencies to regulate foreign investors and their activities. Thus, taking international corporations to court and holding them accountable for environmental degradation is extremely difficult.

Corporate Social Responsibility in India

Since international legal framework cannot directly hold corporations accountable for their Actions, domestic legal systems have to implement appropriate laws and regulations which affix this liability on the corporations.

As mentioned hereinabove, the liability of companies for violations of environmental legislations is already incorporated in the statutory framework of India. Moreover, judicial activism in India ensures that corporations liable for environmental degradation are held liable for their conduct.

Yet these legislations and decisions focus on punishing the corporations for the environmental damage caused by their activities, instead of attempting to prevent environmental degradation in the first place.

The concept of Corporate Social Responsibility (CSR) in context of environmental law has originated on the premise of Precautionary Principle. This principle requires the domestic governments to initiate environmental measures which anticipate, prevent and address the causes of environmental degradation within their territories. It requires initiation of cost-effective measures to prevent environmental degradation.

While the Indian government in itself has initiated several schemes and programs for prevention of environmental degradation such as the Project Tiger, Namami Gange Project, ban on single use plastics, Compensatory Afforestation Fund Act etc., this issue cannot be properly combatted without the corporations contributing to the cause.

The business activities of corporations and companies lead to severe social and environmental impact on the national population and environment, thus there was a need for a binding program which ensured that these corporations contribute financially towards the betterment of the society and environment. Further, the extensive scientific research and development, advanced technologies and monetary resources of the corporations if utilized for environmental protection can lead to significant improvement in the environment. Thus, the concept of Corporate Social Responsibility was introduced in India.

CSR can be defined as a management strategy through which companies can conduct their business in a manner which contributes towards the ethical, legal, commercial, social and environmental expectations of the society.

The statutory provisions for CSR are incorporated under Chapter IX of the Companies Act, 2013. According to the Act, the liability to constitute a Corporate Social Responsibility Committee and to undertake CSR activities extends to the following category of companies:-

i. Companies with net worth of INR 500 crores and more;

ii. Companies with turnover of INR 1,000 crores and more; or

iii. Companies with net profit of INR 5 crores and more during the preceding financial year.

Additionally, Schedule VII of the Act provides the activities which can be undertaken as CSR by the companies. These includes activities which aim at promoting environmental sustainability; ecological balance; protection of wildlife, forests and flora; conservation of natural resources; preventing soil, air and water pollution; and contribution towards the Clean Ganga Fund.

The imposition of statutory obligation on companies for undertaking environmental CSR activities has led to a significant increase in projects by corporates which aim to prevent environmental degradation in India.

An example of this is the project undertaken by TATA Steel with the state government of Orissa. Under this project, the company developed ponds and other irrigation facilities turning approximately 60 acres of wasteland into cropland benefiting around 344 farmers.

Another example is of Coca Cola's waste disposal campaign which in collaboration with NGOs added garbage cans with segregation of wet and dry garbage across homes and offices in Gurugram.

According to reports, approximately 700 crores were spent by companies in India on environmental activities during the financial year 2018-2019. Information Technology firms have significantly contributed towards
environmental activities. Thus, the programs initiated by the government and companies together can result in significant improvement of the Indian ecology.

Conclusion

A comparative analysis of the international and Indian approach towards corporate liability for environmental degradation clearly establishes the lack of an effective implementation mechanism at the international level. It is imperative that governments take a serious approach towards the rising climate change and environmental crisis and implement the international environment law domestically.

Effective national implementation will ensure that corporations are held accountable for their actions and cannot escape liability for environmental damage caused by their business activities.

Revision of existing laws for multinational corporations must take place so that lax provisions that enable these corporations to escape environmental accountability are removed and stringent provisions are included.

Domestic legislation must also incorporate provisions that vest extra-territorial jurisdiction to national courts so that nationally incorporated companies can be sued for environmental damages caused by them abroad.

The Indian framework substantially tackles environmental issues, however, public awareness needs to be created to tackle certain environmental issues at the grassroot level. Further, additional powers must be vested with the National Green Tribunal so that their decisions holding corporations accountable for their actions can be properly executed.

Interiorising Ecocentrism In Environmental Law

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"The time is past when humankind thought it could selfishly draw on exhaustible resources. We know now the world is not a commodity".

-Francis Hollande

Introduction

Over the years, there has been increase in the environmental consciousness coupled with the legislative provisions established to balance the economy and environment, which are complementary. Introduction of a "law of principles" is a crucial facet used to regulate environmental laws. §20 of the National Green Tribunal Act, 2010 ("NGT, 2010") states "The Tribunal, while passing any order or decision or award, shall apply the principles of sustainable development, the precautionary principle and the polluter pays principle". However, these principles are anthropocentric. Anthropocentrism is a human-centred approach where non-humans have materialistic value. Development of environmental jurisprudence requires an eco-centric approach, where it is considered as a community where we belong to community, in a place of using nature as a commodity to serve the interests of human beings. This burden cannot entirely shift on the shoulders of the state under Article 48 A[iv]; the people are also contributing to the deteriorating ecology. Article 51 A(g) of the Constitution states it is the duty of the citizens to protect and improve the environment.

The Author in part II shall discuss the anthropocentric nature of laws in environmental jurisprudence. Principles enshrined in various legislations and international treaties have looked away from ecocentrism. Part III will shed light on the lacunae in the statutory law, which indirectly supports the anthropocentric approach. Part IV will discuss the legal Rights of Nature.

Principles of Environmental Law: Anthropocentric Law

The anthropocentric approach keeps human interest at par by overshadowing the intrinsic value of ecology. Ecocentrism is more nature-based, where it comprises both human and non-human, keeping nature as a priority. In environmental cases, judiciary refers to the three main principles; (a) Polluters Pay Principle ("PPP"); (b) Sustainable development and (c) intergenerational Equity. Anthropocentrism forms the basis of these principles. "Sustainable development" was coined at the United Nations World Commission on Environment and Development. It means "the development which meets the need of the present generation without compromising the needs of the future generation". Similarly, Intergenerational Equity talks about the responsibility of the present generation to protect and improve the environment through careful use for the benefit of both the future and present generation. These two principles highlight the superiority given to the needs of the human beings over ecology to ensure equitable distribution of natural resourcesbetween present and future generation. PPP was used to internalize the cost of pollution. It is compensatory which deters people from causing environmental damage. For the application of the PPP, damage to human beings is a pre-requisite.

The judiciary invoked this principle for the first time in Indian Council for Enviro-Legal Action v. Union of India, where it asked polluter to compensate the individual sufferers and to bear the cost of reinstatement of the environment as a part of sustainable development. However, there is a shift in the approach of Indian judiciary, taking a step towards ecocentrism while realizing the importance of environmental justice.
In Jallikattu case, rules established in the Tamil Nadu Regulation of Jallikattu Act (TNJ Act), 2009 was regulating Jallikattu. However, the practice of Jallikattu was challenged under Section 11 (1) (a) and (m) of Prevention of Cruelty to Animals Act (PCA Act), 1982. Furthermore, it was in collision with Article 51(g) and (h) of the Constitution of India. Moreover, it is practiced for entertainment and excitement, by inflicting harm to bulls. Therefore, it does not fall in the exceptions available under §11 (3) of PCA Act.

In furtherance of this, the court struck down the TNJ Act declaring it unconstitutional under Article 254(1) of the Constitution. This judgment set precedents for considering animal rights over human tradition, customs and practice. The nature-centred approach along with the welfare legislation like PCA Act upholds zero-tolerance policy for infliction of any harm to animals and the Bio Diversity Act, 2002 acknowledges constitutional mandate where humans are under obligation to protect the environment. Furthermore, the Draft Animal Welfare Bill, 2014 emphasizes on prevention of cruelty together with the promotion of the well-being of animals.
Similarly, in Asiatic Lions Case, the court recognized the need to respect rights of Nature which have intrinsic value.

Therefore, judiciary promoted ecocentrism where humans have responsibilities towards non-humans apart from exploiting them for instrumental value.
In the case of Vellore Citizens Welfare Forum v. Union of India ("Vellor Case"), the court adopted the precautionary principle after realizing that compensation cannot be the sole remedy for the damage. This principle states that "if there are threats of irreversible damage of environment then lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation".

Precautionary principle recognizes the unpredictable potential harm (which cannot be calculated scientifically) to the environment. Judge Bhandari, in his separate opinion, stated the role of precautionary principle in environmental law. He discussed the awarding of punitive damages will act as a deterrent for future harm. The crystallization of the precautionary principle reflects the growing awareness regarding environmental protection in the customary rule of law.

By managing the destruction off ecology before occurrence of any catastrophe, the law provides meaningful protection of the ecology, leading to the beginning of the acknowledgement and adoption of Rights of Nature. In other words, it justifies the Rights of Nature. It also sets a low evidential barrier to prove actions are harmful. This shift of the burden of the prove shall be discussed by the author in Part III.

Statutory Obligation: New Onus of Proof

In the Vellore case, the court declared the precautionary principle as a part of customary law in India. Earlier in environmental law burden of proof was on a non-consuming party who wish to preserve

nature to prove that the acts of the consumer party who wants to exploit ecology is in the breach of environmental law. Failing to prove the same will lead to continuous exploitation of nature. However, with the invocation of the precautionary principle, the idea of the new onus of proof has been introduced. Therefore, the burden shifts on the proponent to prove the undertaken activities do not threaten the environment, or there is a negligible effect since they are altering the status quo.

In India, these leading steps were taken by judiciary to develop environmental law by imposing a positive obligation on people towards nature. However, the legislature under statutory requirement only imposes a negative obligation, which might include not to carry out harmful activities. People are required to file an application to get relief from these obligations. However, there are various acts like the Air Act, 1981 and Water act, 1974 (Prevention and Control of Pollution) to put a negative obligation on the public including not to pollute the environment. But for the application of the eco-centric approach, the positive obligation has to be imposed on private individuals. For instance, a landowner has to plan protection of vegetation attached to his property while ensuring a minimum standard of maintenance of flora and fauna. The Ecuador Constitution imposes this positive obligation by the recognition of Rights of Nature.

The Environment is a Separate Living Entity

The environment should get the status of a separate legal entity having similar rights as human beings. Article 49A and 51(A)(g) of the Constitution of India are not enforceable rights. However, when these articles are read together with Article 21, they fall under the ambit of Part III of the Constitution, which makes it enforceable.

Judiciary has interpreted human rights in light of environmental jurisprudence. In Oleum Gas Leak case, the court declared. Article 21, Right to Life, includes the right to live in a pollution-free environment. Judiciary has imbibed the idea of a right to a healthy environment under Article 21 through its judgments. However, this incentive to protect the environment is again driven by the self-interest, demonstrating anthropocentrism.

In the Jallikattu case, the court discussedthe three-st age development in Indian environmental jurisprudence. In stage 1, driven by the self-interest to maximize the profit at the cost of environment, shifted to Stage 2, dealing with the concerns of the future generation and finally leading to Stage 3, the realization of the Rights of Nature.

Scholar, Christopher Stone, in his work, has stated that the non-humans belonging to Nature should have legal rights to stand in a court to protect their integrity. Rights of Nature identify ecosystem and species as a separate living entity, not merely a resource for materialistic use. They have their rights similar to human rights. Rights of Nature is different from other environmental protection laws. Rights of Nature gives constitutional protection to the environment, where people or a set of people established by law acts as a guardian of the environment. However, it is ambiguous if nature holds locus standi per se.

In 2008, Ecuador was the first country to recognize the rights of Nature which includes internal respect for its existence and sustenance of its process.

Subsequently, in 2010 Global Alliance for Rights of Nature was formed. Predominantly, judiciary across nations is granting legal rights to the river. Recently, New Zealand recognized the rights of river Whanganui [23]. Similarly in India, before the Supreme Court overturned the judgment of Uttarakhand High Court which declared the Ganges and its tributaries (including the Yamuna), streams,

or any flowing water of these rivers as a legal person. However, Uttarakhand High Court took this stance in furtherance of human interest since rivers support the life of humans and non-humans.

In the author's opinion, anthropocentrism can lay down a road for ecocentrism. Economist Richard Wilkinson has stated that increase in materialist wealth will not ensure growth in the quality of life. Therefore, he was against the idea of environmental exploitation since it will not serve the purpose which is to increase the standard of living. Henceforth, discouraging the economic growth without real growth at the cost of limited resources. The law of Diminishing Marginal Utility applies in the case of ecology also wherewith the marginal utility with the additional consumption keeps on diminishing. A similar approach was taken by post-development economist Tim Jackson, stating that after reaching maximum utility economic growth without destroying our living conditions is impossible. United Nation Environment Programme in the light of COVID pointed out the increase in zoonotic diseases has lead to the rise in infectious diseases among humans which is intertwined with the condition of the environment. Therefore, it is inevitable that ecocentrism will be adopted willy-nilly soon.

Conclusion

Judge Cancado, said reparation should be considered while determining an adequate remedy. Alternate methods of restitution like a non-repetition obligation, punitive damages, rehabilitation etc. should be considered along with compensation. Equating Rights of Nature with the Rights of human beings will ensure loco parentis is withheld by the public in general to provide meaningful protection of the ecology. These rights will impose a positive obligation on the people and State to take action for the improvement and regeneration of ecology coupled with the negative obligation, i.e. not to carry out harmful activities causing damage to the environment. Judiciary is playing a significant role in determining the Rights of Nature, where the precautionary principle is embracing ecocentrism in environmental law.

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Radioactive Wastes in Hospitals: A SOS Signal for the Environment

About the Author: Shashank Kumar Dey is a student of LLM (Batch 2019-20) at HNLU Raipur.

Introduction

COVID-19 has just been a symptom to other major upcoming environmental threats our planet is going to face. During this pandemic the medical profession has turned out as the last stand against this deadly disease. During this time the hospitals are exhaustively engaged in treatment and saving of lives, while this occurs the doctors uses the radioactive isotopes for diagnostics and therapeutics and all the equipment's, clothes etc. used in the purpose come within the radioactivity and gets contaminated and hence need proper disposal. However during this haste and panic situation it is less likely that hospitals are following proper procedures for the safe disposal of these contaminated objects, which is like a time bomb in the future. It poses a serious threat to the environment.

Nuclear science technology has been a major breakthrough in the advancement of energy as it is carbon free and a clean source of energy. The utility of a radioactive compound can be measured with the fact that 'one ton of Uranium-235 produces energy as of 3 million tons of coal or 12 million barrels of petrol'. It is clear that the nuclear energy is the alternative to other carbon based fuel sources. It has multipurpose ability as it is used for civilian and military purposes, commercially it is used in Industries and Hospitals (for industrial radiography, mineral analysis and in hospitals for radiotherapy) and this process generates radioactive wastes which are more harmful than the wastes emitted from the nuclear reactors because it is not easily traceable and hence can be dumped easily and ignorantly.

Surprisingly, the present International Conventions put emphasis on threat from nuclear radioactive wastes while gave mere few guidelines regarding the disposal of radioactive wastes in commercial establishments and the Indian Parliament too has been ignorant, because there exist no specific legislation regarding the commercial radioactive wastes nor any scrutinizing authority dealing with it.

Hence, The present discussion would be over understanding how existing laws are not maintaining international standards and there are loopholes which makes them incapable in dealing with these emerging radioactive challenges and the pivotal question is how the legislation should respond, how the authorities should be more sensitized and made aware about this new form of waste which if ignored may lead to catastrophe.

Science of Radioactivity

There are four kinds of radiations- Alpha and Beta rays are both particulate emissions while the Gamma rays have no mass and contain pure energy and the last one is Neutron rays which is produced in atomic bombs and nuclear reactors and they are harmful because they can 'ionize' living tissues and alter its atomic structure. Its magnitude can be anticipated by the fact that it is 25000 times more lethal than arsenic.

But if used consciously and in controlled manner, the disruption in the chemical bonding of the chemicals in the molecules within the cells can help in treating cancers and other diseases.

Impact on Environment and Humans

Radioactive wastes are a serious threat to the environment and ultimately to the humans and it can be observed from various incidents which have taken place across the world, one such instance is during 1960's nuclear tests were done in parts of America and Europe and the lichens in that geographical area absorbed the Caesium radioactive and when the reindeer graze on them the isotope got stored and the whole Lapland got contaminated with radioactive isotopes 10 times more than others, due to meat consumption.

Similarly some of the major nuclear accidents in the past like the three mile nuclear accident, Chernobyl nuclear reactor accident or the most recent Fukushima Daichi, Japan Nuclear Power Plant accident have made one thing clear that there are no room for mistakes while dealing with nuclear elements. These mishappenings came to lime light because the nuclear reactors are always under observation and security but one needs to think about the hospitals where the radioactive isotopes like the Iodine (I-125), Iodine (1239I-123), Flourine-18(F-18), Tritium (H-3) and Carbon 14(C-14) are used for diagnostics and therapeutics and the radioactive waste emitted there is mostly in liquid, semi solid and minimal of gaseous form, and these hospitals unlike the nuclear reactors which are generally on

the outskirts of dense population are always in the central part of any town, city which is easily accessible to the people which makes it more dangerous. These radiations have gradual effect and may not even appear even for decades because of small exposures over a considerable period of time and literally have no visible effects. The late effects in the exposed victim can cause leukaemia and it is the somatic effect and not genetic effect that occur in the progeny of the exposed person. It can also cause complication in the development of the foetus and are considered teratogenic rather genetic effects.

There are international accidents which show how the radioactive contamination caused in a hospital site resulted in disaster, like the Goia nia incident in Brazil on 13th September 1987 where radioactive contamination at the hospital caused 12000 people to be examined for contamination out of which 249 were found contaminated and lately 2 casualties were reported. Later topsoil of several sites had to be removed and several hundred houses were demolished and personal belongings etc. were incinerated. IAEA called it 'one of the worst radioactive disasters'. Another incident Samut Pakarn in Thailand in February 2000 were C-60 radiotherapy source used in hospitals were stored in open in a junkyard and its mishandling by the laymen caused radioactive element to expose and causing 3 deaths and 1870 people got affected of its radiations.

Apart from these international incidents there are other such accidents in India as well which unfortunately go unreported because of the hospitals suppress the matter or they being minor accidents and that's why people never get to know about the lack of following guidelines on part of the healthcare institutions.

Challenges in Disposal of Radioactive in Hospitals

The radiotherapy is a major treatment method in curing cancer and the first challenge in its disposal is the segregation of the bio wastes from the radioactive hospital wastes as the latter is not like the usual hospital wastes i.e. plastic bags, bloody cotton wipes, saline bottles, expired tablets, syringe etc. Practically the radioactive waste can be in solid or liquid form i.e. patient's excretion, vomitus, urine, contaminated laundry, syringes, gloves and other contaminated accessories, and without proper equipment's it is not possible to detect them.

Secondly, even if radioactive waste is dead it can still affect, the hospitals usually dump radioactive wastes not realising that sooner or later it will contaminate the ground water. The effects may not be evident immediately but maybe after 100 years.

Thirdly the flies come over public garbage and carry the radioactive components with them and sit on food, contaminating people. The presence of uranium in waste gets into the body by intake of food or drinking water and contaminate and later causes cancer or kidney failure as Uranium is heavy metal.

Legislative Actions

The Atomic Energy Regulatory Board which was formed with the objective of monitoring and checking on the industrial radiography and radiotherapy in hospitals have failed to conduct 85% mandatory inspections even when they were recognised as highly radioactive.

However, Internationally the Atomic Energy Rules 1987 mentions special provisions regarding the low level radioactivity in Hospitals and Laboratories and authority to supervise the activity, despite such rulings 91% of X-ray facilities in India are not registered with the Atomic Energy Regulatory Board. So it can been deducted that out of all the above Acts and rules only Atomic Energy Rules 1987 somewhat

deals with radioactivity in medical but it is evidenced to be inadequate because the Atomic Energy Regulatory Board the controlling body is more or less a toothless tiger.

Recommendations

Environmental law jurisprudence has been developed in India by the Supreme court and in plethora of cases recognized right to enjoy clean water and air as part of right to life and personal liberty and right to human dignity includes all bare necessities of life such as adequate nutrition, clothing, shelter and it is the mandatory duty of the state to protect and preserve the human rights. Hence, state must recognize that Right to Life includes Right to live without invasion of pollution, degradation and ecological imbalances and everyone must have right to standard living for health and well-being of himself and his family. States must recognize right to adequate standard and continuous improvement of living conditions, thus inherent right to life must be protected by the law.

The radioactive elements have lately turned out as important part of Hospitals, Industries and Laboratories and the radioactive energy sources are non- ignorable because they are necessary for treatments in hospitals and the emphasis should not be to remove it due to fear of its harmful effects rather curbing the radioactive waste emissions and its disposal by making strict regulations and covering the grey areas which need enactments.

· The existing laws regarding radioactive wastes disposal are mostly focused on nuclear reactors and there are very few guidelines dealing with the commercial arenas i.e. hospitals, industries, laboratories, hence there is need for a specific legislation for the commercial sectors dealing with radioactive elements and its safe disposal.

· The procedure for licensing need to be strict and strengthen so that all radiation facilities can be covered under Atomic Energy Regulatory Board, adding to it the basic documents regarding the licensing should be maintained properly.

· The Atomic Energy Regulatory Board should be empowered to frame rules for levying suitable fines for the violation of the license policy as the fine under Atomic Energy Act is not adequate.

· Atomic Energy Regulatory Board must regulate the inspection of radioactive facility and ensure to maintain the international standards and also issuance of regulatory inspection reports on time.

· Directorates of Radioactive Safety should be set up in all the states so that the radiation safety officers can visit and check in the hospitals, nursing homes, clinics and diagnostic centres that whether they have license for medical diagnostics or not.

· Environmental Information Centres should be setup in district level so that any person finding any such suspicious unattended radioactive equipment should be immediately reported off, also the inventory of the radioactive sources must be updated continuously so that no radioactive source go out of control.

· A proper compensatory mechanism is needed to compensate the victims and fund their medical expenses affected due to such radioactive emissions. The present law 'Civil Liability for Nuclear Damage Act 2010' deals only with nuclear radioactive accidents. It do not include radioisotopes which are used for any medical or other commercial purposes.

· India can be second country after France to design a facility for especially disposing of very low and intermediate activity radioactive wastes. Such facility should be constructed in each states so that the radioactive wastes are not dumped elsewhere and they are safely disposed.

Conclusion

A civilization's existence is based on the source of energy which is the pivotal of developmental process. The humans have successfully found

nuclear energy as clean and safe energy however it has consequences and that is its radioactive wastes are very dangerous and are difficult to decompose hence it poses challenge for its safe disposal.The radioactive elements used in hospitals for radiotherapy, x-rays contaminates medical equipment's and its improper disposal poses threat to environment. The present laws are mostly focused on nuclear reactors and its potential threats but the commercial use of radioactivity and the way they are carelessly dumped are seriously dangerous to the environment and hence the legislation should pay heed to this problem so that nuclear energy can be utilized fully with minimal damage to the environment.

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Do You Know

- Eleven out of the top 12 cities with the highest levels of particulate pollution are located in India, according to a World Health Organization report.
- India has one of the highest rates of child mortality, in part due to both toxic air and polluted waters.
- Air pollution accounts for an estimated 12.5 percent of deaths in India.
- A study conducted by the nonprofit group, Centre for Science and Environment, found that most polluted waters are in the Karnataka, Telangana and Kerala regions. This is likely due to an increase in highly polluting industrial presence.

Eco-Quiz

1. What atmospheric layer has most of the clouds?
   A.Mesosphere
   B.Thermosphere
   C.Exosphere
   D.Troposphere

2. An altitude of 100 kilometres (62 mi; 330,000 ft) above the Earth's sea level marks the beginning of space where human travelers are considered astronauts. What is it called?
   A.Appleton–Barnett layer
   B.Karman line
   C.Heaviside layer
   D.Van Allen belts

3. Name the atmospheric layer that is completely cloudless and free of water vapor
   A.Exosphere
   B.Troposphere
   C.Thermosphere
   D.Stratosphere

4. Who coined the word 'ecology'?
   A. Ernst Haeckel
   B. Charles Darwin
   C. Gregory Mendel

Answer: 1. D; 2. B; 3. C; 4. A .

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PART THREE

GREEN COLUMN

Photographer: Anubhav Lamba is a student of BA LLB at School of Law ,Bennett University

Let's Learn to Coexist

About the Author: Nidhi Upadhayay is an Assistant Professor at Faculty of Law, SGT University, Gurugram

It would not be an exaggeration to say that for ages, the most important thing for humans have been human himself. All the other things in this universe have assumed secondary status for us. Even the Mother Nature who inhabit all the living and non-living creatures including the humans, have found an ancillary status in the anthropocentric philosophy. It seems that the brunt of COVID-19 faced by the world is the manner of nature to make us realize that we, humans have made the biggest mistake of thinking ourselves to be too powerful; to be the master of this earth.

These days social media, T.V channels, news papers etc. are flooded with the photos, videos and news of wild animals roving the streets, birds that were rarely seen in past few decades are fluttering in the sky and aquatic animals coming on shores. The smoggy cities are now seeing clear skies and witnessing the twinkling of bright stars which had become a forgotten thing. These images and news are getting huge 'likes' and 'shares'. The suspension of hunting in various countries, freeing up crowdie streets, unimaginable reduction of noise in the air, clean and pure air indicate a convivial season for other living creatures on the planet Earth.

One thing has become very clear that we all like and love to live in the lap of the nature but we have forgotten the art of coexistence. We the children of Mother Nature are not able to live together with the other children of the nature. We have caused irreparable damages not only to the habitat of all other creatures on the Earth but also inevitably ravished our own home.

Coexistence is the basic essence of living. One cannot survive in isolation. All the living, non- living creatures are tied together for their subsistence. In our modern and luxurious life style, we have lost the fundamental understanding that this nature does not belong to us only. In fact every natural thing that we see ought to have equal right to enjoy its space in this world. This unprecedented period of humans being locked down in home and animals on street is loudly and clearly giving the message that we need to learn to live together with other creatures on Earth.

We assume on our self the responsibility of protecting the nature only because we have been consistently destroying it. No other animal or bird attempts to preserve the nature. The reason is simple that they never commit the foolishness of destructing their own habitat. The human-centric approach which considers that only humans are of intrinsic value and all other aspect of environment is just to assist the subsistence of humanity has already done great harm. Now the nature is reclaiming itself, communicating to us that we are not the masters, but only the beneficiaries like other beings and we need to decide our limits so that every being can live peacefully together on this beautiful planet.

Sooner we understand and learn the art of coexistence, there are more chances to preserve the human race else the nature will find its way to rebounce.

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Concern for the Future

About the Author: Roshini Lil Mathew & Nayana James is a student at Mar Gregorious College of Law. Thiruvananthapuram.

Nature is being exploited since we view it as an item having a place with us. At the point when we consider land to be a network to which we have a place, we may start to utilize it with affection and regard.

The word 'Environment' has been derived from a French word 'Environa' means to surround, and is defined as the conditions that you live or work in and the way that they impact how you feel or how adequately you can function.It includes both biotic and abiotic organisms or is a world of biological, physiological elements and constituted itself with the interactions of organisms. Nature has a complex and organized components, environment and organisms .The life of the organisms including human beings vigorously interacts with the environment and being controlled by the materials and forces that surround the living organisms.

Earth is the only home that humans have. And they are being nourished by the essentials of life provided by the nature. Entire life support system of humanity depends on the well being of all the living species on earth and is living interdependent within one global ecological system. There exist different types of ecosystem within a larger single biological sphere. Human life has an inseparable connection with the theories of evolution .Even still; a lot of changes, discoveries have been emerged due to the non persistent nature of these evolution theories of human. Because, humans change the environment for themselves. No man can live independent without accepting any adaptations as all the conditions, materials which influence the surroundings of human life has an impact on the growth and development of human beings. Functional environment of an organism cannot be curbed by any arbitrary boundaries. Human, being an interactive organism with the biosphere has been deeply immersed with the ecosystem where it lives and has a role of modifier with the environment and within itself through the mobilization and sequential pattern of materials and the flow and storage of energy. Urgent problems of mankind have created a great menace to the natural form or the well being of the ecosystem and hence the environment is being intensified and affected with huge pressure from human beings. This is a slowly witted realization of human being achieved within these recent years.

Thus, it paved a way for attributing the significance of environment, of its role and studies, in the day –to – day human life .It enlighten us about the noteworthiness of protection and conservation of natural elements, dropping out the thoughtless use of resources .We have stepped on the stage at which mankind is being threatened by his survival on this earth.

Law is a requirement for well being of an organized, political society, where each and every rights of an individual are laid before the sovereign authority except the natural rights. It becomes a need for adopting certain rules, standards, customs which are generally acceptable in nature for regulating the human behaviour, or his conduct in a living environment. A regular pattern or order for life has been derived for the peaceful life of man accordingly he can act in a way without inflicting injuries to the fellow beings. A strict penal action is being sanctioned in the violation of imposed duties upon the individual .Environment plays a significant role in the healthy and peaceful human life, the growth and nourishment of life on this earth .Everyday actions and human decisions on this technical era has a negative impact on the equilibrium nature of natural surroundings, ultimately disturbing .

In order to attain the goal of protecting the environment, certain regulations, statutes.. has been enacted or being enacted and categorized under the head of environmental law. It is to be noted that such environmental laws are not just covering the legislation enacted by the state but also, includes the working approach towards improving ethical principles governing the interaction of human with his living natural surroundings through the method of making each one to act responsibly, ethically. Depletion of natural resources, scarcity of non renewable materials- form of energy, drastic changes in the growth of living beings.

Environmental law has been brought at the early stages of twentieth century, majority of environmental laws and regulations being created since that time. Environmental laws mainly aimed at measures to be taken for protection of air quality, water quality, and waste management, preservation of water resources, aquatic bodies, and endangered species.

Regulation of environment has been taken as a greater issue at international and national level, making an approach for the effective management of environmental related subjects as it will greatly impact both present and future generations. Alarming rate of irreversible changes in ecosystem has called upon a sudden attention of people, governing machineries in the world.

United Nation established the United Nations Environment Programme as the world's international principal organization for environmental issues. The year 1972 -1992 was marked by the historic event in which the countries across the world has enjoined for identifying and addressing environmental issues on multilateral agreements like United Nations Stockholm Conference on the Human Environment , and Rio de Janeiro Conference on Environment and Development .All these principles enumerated of basic right that provide for a quality environment for nurturing the human growth and development with a status of dignity and well being by guaranteeing the right to freedom ,life along with the basic conditions of life. These two major principles of international environmental law have pushed on the developmental approach towards a integrated management of ecosystem. Environmental law calls for reducing the impacts of human activity on the interaction with natural environment .it is influenced by the principles of conservation, responsibility, management, sustainability .it is concerned with prevention of spatial relation, superfluous behavior of human towards the utilization of limited resources.

It is to be noted that these drastic environmental changes are not a mere concern for a single nation but it wholly affects the universal growth itself. Hence, a decentralization approach is required for the concern of environmental issues.

India has adopted the principle of sustainability, preservation & conservation of natural resources for the implementation of various environmental laws. Stockholm conference in 1992 has a greater impact on the setting up of National council for Environmental policy and planning, later evolved into a fully fledged Ministry of Environment and Forests. Every citizen has been casted upon a duty to protect and improve natural resources, to have a consideration for fellow living creatures while, it has also mentioned the role of state in protecting and improving the environment and to safeguard the wildlife and forests of the country .The constitution itself has enumerated the legal framework for the conservation of environment and sustainable development.

In India, Central pollution control board and Ministry of environment and forests is acting as a regulatory and administrative body for the environmental protection.

- The Water (Prevention and Control of Pollution) Act, 1974
- Forest conservation Act , 1980
- wildlife protection Act ,1972
- The Air (Prevention and Control of Pollution) Act, 1981
- The Environment Protection Act, 1986
- The National Green Tribunal Act, 2010 etc.. Some of the environmental laws.

In spite of the fact that the constitution of India maintains condition as a social issue as opposed to an individual issue yet the endeavors of every individual will really help in moderating issues that will emerge. Singular acknowledgment of the natural law and high polite obligation are significant components in usage of ecological law. This will prompt formation of cultural and political will towards ecological mindfulness. Indian ecological laws are increasingly

human driven for example fundamentally concentrating on the advantages of the individuals (for example wellbeing) instead of direct security of common habitat. We need an uplifting demeanor with respect to every resident which is fundamental for compelling and productive requirement of these enactments. Open's enthusiasm for condition will itself flash the adequacy of the laws. Open mindfulness and reality towards handling the issues of natural contamination ought to be our most extreme need.

We should never forget that;

" The environment is the only place we as a whole meet; where we as a whole have a common intrigue; it is the one thing we all offer."

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Eco-Tourism

About the Author: Sushree Sunanda Sahu is a student at DSNLU Vishakhapatnam.

The tourism industry has been booming over the few years, prior to the pandemic; with people keen to explore new places on the planet. While tourism opened the doors for economic gains for the nations and natives of the tourist places; a large number of tourists did affect the places as well. The tourist hotspots lost their inherent charm and were heavily commercialized. The places were covered with posters advertising hotels, spas, restaurants covering up the actual beauty of the place. In fact, mountains and beaches were the most commercially exploited resources, and heavy investments were made for 'developing' these sites. Indeed, these activities resulted in economic advantages; but caused losses environmentally; the live example of which is the Uttarakhand cloud burst. Due to high demands of these aesthetically pleasant tourist spots; large scale economic exploitations occurred, harming the environment as a result. These developments affected the environment in numerous ways, causing climate change and global warming, affecting the biodiversity, a lot of which got endangered in the due course; polluting the crystal clear water resources and polluting the air.

Having realized the environmental losses and their impacts of human beings; the nations came up with legislations to regulate these activities. Further, international instruments like the Convention on Biological Diversity, the Nagoya protocol and the Kyoto protocol came into force; and had to be applied by the nations within their jurisdictions. With these wonderfully crafted instruments both at the national and international levels; the situation did not improve substantially. It was then realized that governmental efforts would continue to be futile; unless supported by the citizens themselves. And thus came up the idea of eco-tourism. Eco-tourism literally means travelling to environmentally rich places, with a great amount of biodiversity, pleasant climate etc. In the legal sense, the meaning is much deeper and needs to be understood by everyone; it is responsible travelling to places with delicate ecological balance. Eco-tourism is a way in which the tourists are made aware of the environmental concerns of their irresponsible behaviour and hence are required to act in an environmentally awakened manner.

By adopting the practice of eco-tourism, the tourists respect the indigenousness of the tourist places, the culture of the place, the traditional knowledge stored, their traditional cultural expressions and this proves to be a wonderful learning experience to the tourists; which is one of the objectives of eco-tourism. These practices help keep the pristine environment of these delicate ecosystems unadulterated; by substantially lessening the impacts of tourism on the tourist places. The idea of eco-tourism was to benefit the environment and the economy at the same time and it has actually worked pretty well; considering the fact

that people are increasingly becoming aware about their activities and are acting in an environmentally responsible manner. This enriches the experience of both the indigenous people and the visitors; and binds them together.

Eco-tourism has benefitted the hosts (indigenous people) economically by providing them with employment opportunities, which is not achieved at the cost of environment. This method is an example of the fact that we don't have to compromise on the environment to gain economically; and has substantially increased our faith in the concept of 'holistic and sustainable development'. Since the output of this practice has been positive and many states are taking steps to promote eco-tourism, like the Himalayan nature park, in Himachal Pradesh; the Andaman islands; the Sunderbans in West Bengal and the Chilika lake in Odisha; thus benefitting them economically and befitting the environment. It can be hence concluded that no amount of governmental actions are successful, unless backed by people's support; which can be achieved by creating awareness; because nobody wants to visit a dirty place and everyone will do their bit to protect those tourist hotspots.

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NITI Aayog on Water Crisis

The report titled "Composite Water Management Index", published by NITI Aayog in June 2018, mentions that India is undergoing the worst water crisis in its history and nearly 600 million people are facing high to extreme water stress.

The report further mentions that India is placed at 120th amongst 122 countries in the water quality index, with nearly 70% of water being contaminated.

As per the 5th Minor Irrigation Census (with reference year 2013-14) conducted by Ministry of Water Resources, River Development and Ganga Rejuvenation (now Ministry of Jal Shakti), there are 20.52 million wells in the country, which includes dug wells, shallow tube wells, medium tube wells and deep tube wells.

On the other hand, NITI Aayog figures include only shallow, medium and deep tube wells and do not include dug wells.

Do You Know

About 45 percent of India's land is degraded due to erosion, soil acidity, alkalinity and salinity, water logging and wind erosion. The prime causes of land degradation are deforestation, unsustainable farming, mining and excessive groundwater extraction. However, over two-thirds of the degraded 147 million hectares can be regenerated quite easily. India's forest cover is also gradually increasing (currently about 21%).

HPNLU GREEN GAZETTE

PART FOUR

GREEN RHYME

Photographer: Surbhi Choudhry is a student of 5th Year at B.P.S.M.V khanpur kalan, Sonipat , Haryana , India

CEDM

I am also one of them

About the Poet: Anuja Sharma is a student of B.A.LL.B, 2nd Year at Himachal Pradesh National Law University, Shimla

Bleeding, crying and sobbing, accompanied by her daughter she came to my office one day.

Oh dear, careful, what has happened to you? Please sit, I say.

Hello, Myself E and this is my daughter E. Will you please fight our case?

Me: Sure, could you please explain yourself, her whole body is melting and what has happened to your face? Can I offer you something?

Miss E: Oh, that's nothing. Mortality, you know? We are dying.

And we are not crying,

her glaciers are melting and you must be wondering how,

lately my daughter's been going through a lot of change; she has been burning for a long time now,

it is all part and parcel of growing up or development as they say.

They celebrate her birthday as Earth Day and mine as Environment Day.

But perhaps they don't like the color green that much,

so they keep cutting off the flora but now it hurts to even touch.

And may be black is the new blue, so they painted the water bodies black,

oh, I did not chop off my hair myself because of mental trauma; rather I hope it grows back.

That is just because of the honor killing of their siblings who they consider less intelligent,the rhinos,

the whales, the pangolins, the snow leopards and on social media, they repent.

I can only explain what is happening, I do not know if we are being murdered or lynched or executed, you must know the legal terms,

look at them now, scared of the viruses, bacteria and germs,

They abet me to commit suicide and then call it a natural calamity,

now that the ozone layer is gone, will PPE Kits or masks or face shields work for us? Alas! You are also one of them. What a pity!!

(And you wanted to offer me something? Water? Well, we have had a lot.)

Dear Past Generation, Dare Not Ask Me What Were You Supposed to Do!

About the Poet: Gunjan Baheti is a student of B.A.LL.B (4th year) at MNLU Nagpur.

Last night, I had a dream so true
What my future generation was going through
The place they were living was an abode of dead
They had no option but to live in that hell
They made me realize what we could've all done

However, Mother Earth's all cries were shunned
They started telling me the naked truth,
Here I quote as a warning for you.

"You were not just a person breathing here,
But an eye-witness to this darkest disaster so near.
Dear, past generation, you have failed us, truly,
In every possible manner through your actions unruly.

I am so unfortunate to call you my forefathers
For you agonized Mother Earth since years,
Ignoring the consequences, never did you surrender

You have been an insensitive habitual offender.
"What could I have done?" You are such a bluff
Don't ask me this, you never even cared enough!

You brought us a lot of Conventions for sure,
Which you thought would be the ultimate cure
Guess what? The ineffective, International laws
Never saved the planet from your incorrigible flaws.

You kept shooting us with the national legislations
For the destroyer of the surroundings of our nations,
however, it took years to tell the hands so hefty
That the utmost important is Mother Earth's safety!
"What could I have done?" You are such a bluff
Don't ask me this, you never even cared enough!

Realize and pay for what you have done,
Came to the rescue, the Polluters Pay Principle
However, money neither heals the deforested barrens
Nor will it restore these wavering climate patterns
Neither will it clear the oil layered fresh water

Nor will it save the species on the extinction border
Neither will it heal our precious atmosphere
And will always be a bane to our diverse ecosphere.
"What could I have done?" You are such a bluff
Don't ask me this, you never even cared enough!

Mother Earth kept crying for years all alone,
She was in fires in the Australia and the Amazon,
She was sick and still is, remember the Chernobyl?
And during the Carbide gas leak, she had no will.

She couldn't breathe through the 1952 London Smog
She was suffocating through the plastics clogged.
The carbon emitted by factories and industries made the air terrible
Even the Love Canal was betrayed by the dumping of chemicals
The ever so huge are now melted ice-bergs.
Tell me an end, what would do alone the Thunberg?
"What could I have done?" You are such a bluff
Don't ask me this, you never even cared enough!

But, because you ask, I will give you the answers.
You will now face the truth, my dear forefathers,

Sit, have the courage to listen and not forget
About what you could've done and regret!
To start with, you could've chosen to agree
To not submit yourself to the never-ending greed.

You could have chosen stricter laws and quicker remedies
You could have banned strictly the plastic of low qualities.
You could have told the people to plant more and more
You could have chosen smaller buildings and bigger groves.
You could have told children to use paper cautiously,

You could have saved gas, water and electricity.
"What could I have done?" You are such a bluff
Don't ask me this, you never even cared enough!

You could've used the A-4 sized paper both sides even before
Now you only do, it's a precedent therefore.
You could have used recyclable containers and pads.
And encouraged the use of public transport to your lads.

Well, you could have chosen to not trade illegally
In species and specimens to love the creatures unconditionally.
You could have chosen to go meatless and reduced your footprint
You could've built a legacy, and left on our hearts an imprint.
"What could I have done?" You are such a bluff
Don't ask me this, you never even cared enough!

You could have been mindful of what you throw in trash
And borrow or fix, rather than spend your cash.
If you ask, you could have not craved for fake luxuries
And you could have used printer only when necessary.

I can tell you a million little things to save the green
Even if, right now it is not readily seen.
What goes on around will affect you too,
Dear past generation, we have a life to live too.
And, when you ask me, what you could have done,
Dare to! Because I have truthful answers a ton!"

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Do You Know

- India contributes only about five percent of the world's greenhouse gas emissions that are leading to climate change. However, about 700 million Indians directly face the threat of global warming today, as it affects farming, makes droughts, floods and storms more frequent and more severe and is raising the sea level.

- According to a report, published on the website of Central Pollution Control Board (CPCB), only 13.5 % of the sewage in India is treated. This shows a dismal status of the sewage treatment in our country. This report indicates that more than 80% of the sewage is left untreated.

- Air pollution in India, ranked by the World Health Organisation, is among the worst in the world. It is adversely impacting the lifespan of the country's citizens, reducing most Indian lives by over three years. More than 80% of people living in urban areas are exposed to air quality levels that exceed the WHO safe limits.

Team

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Photographer : Sonal Kushwah, is a student of 5th Year at HPNLU Shimla