



ANIMAL TESTING- THE OBSOLESCENCE IN CONTINUANCE

About the Author: Yash Arjariya

Introduction

Animal testing, frequently referred as animal experimentation, animal research, or in vivo testing, is the use of nonhuman animals in trials to determine variables that impact the behaviour or biome under investigation.

Animal testing in pharmaceutical, cosmetic, and other research is perceived as a dark side of science and research by some, who argue that it is not morally, emotionally, or ethically justifiable and that it is cruel. In contrast, others argue that it is less reliable, expensive, and ethically misguided. As a result, assessing each of the arguments presented in support of or against prohibiting animal experimentation becomes highly critical. The weighted comparison considers three key factors: efficiency, ethical cost, and considerations. Any conclusion must be based on the results of the three tests.

Cost-Based Analysis

It is critical to recognize that animal experimentation neither is required nor unavoidable. Advanced computer-modelling approaches, for example, use Algorithms to compare the new chemical molecule to a large database of chemical compositions. The algorithms can forecast the chemical compound's mismatch and incompatibility when it is tested in the required chemical environment or in a model. This modelling technique has the advantage of being relatively inexpensive, quick, and scalable to accommodate more complicated tests and a larger number of tests.

The second method used is sophisticated tests using human cells and tissues (also known as in vitro methods). Synthetic or cultured human cells can be developed and can be specifically tested for new medicines or cosmetics. It has multiple benefits over animal testing. To start with, it can test on exact organs on which effect is to be accessed; in addition, it can be studied on multiple subjects with varying characteristics because a petri dish will not take as much space as a mice or any other animal does. Further, the cost of developing synthetic tissues or cells or organs is substantially lower than procuring suitable animals for the test.

Both technologies have a higher degree of scalability than animal testing and are far more cost-effective. Furthermore, the growing volume and frequency of testing will aid in further cost reduction.

Efficiency Based Analysis

The Results yielded by Animal experimentation are far less reliable and efficient than tests and cultured cells or tests by Computer-based modelling methods.

This less reliability is because of three main reasons. To start with, animals are close to humans in biological nature and formation but are not similar. The similarity with respect to metabolism and other vital body processes is substantially different. The results thus noted are not cent per cent reliable, and neither do they enjoy a high degree of reliability. The point can be better supported with an example of HIV.

Strokes drugs tested on animals showed positive responses but failed to deliver the same or similar results when tested on humans.

The bone contention of this analysis is that the cost incurred on animal testing does not have an adequate return to a factor invested because animals are not humans. The issue can be solved by using other two methods instead of Animal testing.

The cultured cells/tissues/organs so tested in the experiment replicate exact human anatomy. The Petri dish in practical operation is similar to human cells, and any impact on cultured cells by the drug will be similar as on normal humans. For example, if a drug is to cure a disease, cells infected with the same disease can be artificially cultured, and the drug can be tested on them. This gives real-life subject experience for testing.

Further, the computer-based modelling method will have a significantly greater degree of accuracy for the obvious reason that computer-tested models against pre-fetched data will show the exact result. A computer or a machine is best suited for studying the effects of a drug with respect to normal chemical compositions and noting any mismatch between the intended and actual outcome.

The *in vitro* method and modelling method are far more efficient and reliable than animal testing owing to them replicating exact human-like conditions and studying the effects with a much greater degree of reliability.

Another argument raised in favour of animal testing is that since the life cycle of animals is short, the effects can be studied over many generations. This argument is hollow at its core. The biological cycle of Cultured cells can be made fast by rearing them in the condition-specific environment or by adding biological catalysts.

Also, the cells can be made to reproduce by fission, and their impact on multiple generations can be accessed. Not to mention again, the results will again be more accurate than Animal testing.

Ethical Arguments

The products tested on animals are stained with cries, horrors, and deaths of innocent life forms. Proponents of this argument contend that this practise of animal testing considers animals as an inferior life-form, they are subject to torture because of the only reason that they are not as dominant life form as humans and historically have been treated as property of human, and because they lack reason and voice.

It is clearly not morally justifiable to subject mute life forms to processes which the humans themselves don't assent to part of. When humans decide on the fate of animals in research settings, their rights are stripped away with no regard for their well-being or quality of life.

Experimenting on animals is always inexcusable because: it causes suffering to animals; the benefits claimed have a high opportunity cost in terms of resources used; there is less efficiency; and, most importantly, any benefits to humans that animal testing provides could be obtained in other ways.

Conclusion

Non-animal research approaches, such as organson-chips, organoids, human-based microdosing, in vitro technology, human-patient simulators, and advanced computer modelling, have been created by forward-thinking scientists and are economical, quicker, more scalable and more accurate than animal studies.

Every point for or against animal experimentation must be evaluated against three key criteria: cost, efficiency, and dependability, as well as morality. The previous analysis clearly establishes that animal experimentation has a significant opportunity cost that outweighs the advantages derived from it.

The analysis clearly supports the adoption of 3R's, which are, replacement of costly animal testing procedures with economical and scientific practices, reduction in wastage of resources by more precise statistical analysis in modelling approach and refinement, which shall remove the painful procedures but adopt more accurate and trustworthy practices.

Modern testing procedures, as described above, are clearly significantly faster, more consistent, scalable, and cost-effective, and, most importantly, are not detrimental or hazardous to any sentient creature. As a result, it is not unreasonable to conclude that animal experimentation should be discontinued and that contemporary, promising methods should be accepted and promoted.

Mostly as a logical result, it is reasonable to infer that animal experimentation is an obsolete and antiquated method that, if prolonged, will do injustice to the resources employed and adds to the misery of sentient animals.

ECOCIDE: A CRIME AGAINST ENVIRONMENT

About the Author: Shuchita Tripathi is a 2nd-year student of L.L.B. at Campus Law Centre, Faculty of law, University of Delhi. She graduated in Political Science from Hindu College, New Delhi.

"And I have felt
A presence that disturbs me with the joy
Of elevated thoughts; a sense sublime
Of something far more deeply interfused,
Whose dwelling is the light of setting suns,

And the round ocean and the living air,
And the blue sky, and in the mind of man
......Therefore am I still
A lover of meadows and the woods,
And mountains; and of all that we behold
From this green earth."
- William Wordsworth

Professor Arthur W. Galston, a US Biologist, first coined the term 'Ecocide' at the Conference on War and National Responsibility in Washington in the year 1970. He became the first bioethicist to depict enormous destruction of the ecosystem and called it ecocide. The conceptualization of ecocide only emerged in the concluding times of the Vietnam War. It was in 1972 at the UN Environmental Summit in Stockholm that the World was introduced to this word by the Swedish Prime Minister Olof Palme. Polly Higgins a Scottish Lawyer came to the forefront as a leading campaigner for the environment. Her clarion call was that Earth needs a good lawyer too and that she has been badly wounded and something should be done to heal her. Now her responsibility to defend the environment has been shouldered by people like Pope Francis and Greta Thunberg. A proposal has been put forth to introduce it as the fifth crime against humanity and the security of humankind in the international law Regime. Vanuatu's ambassador to the European Union at the International Criminal Court (hereafter ICC) in the Hague made a rationale to accept the damage done to the environment as a crime against mankind. We all are not oblivious of the fact that in order to categorize ecocide as an international crime the Treaty: Roman Statute will have to be amended by the ICC. So the questions that come in a layman's mind are what ecocide actually means and why are folks so concerned to criminalize it.

Ecocide was born when man learnt to adapt his natural environment as per his needs. The people from primitive times also misused the resources methodically and heedlessly for generations till the time battered and bruised environment would no longer give them something. No one could have imagined that barren Easter Island in the Pacific was once a lushly vegetated island. The alarming threat of ecocide could not but ignored in the 20th century but the international community responded in a slow and gradual manner that too not very effective. In June 2021 a definition of ecocide was released by international panelists which they hoped shall be included in the Roman Statute. As per Article 8, Ecocide is-

"For the Purpose of this Statute, "ecocide" means unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts" (Source:- Anastacia Greene, "Mens Rea and the Proposed Legal Definition of Ecocide", 2021).

The theory behind such thoughts could have been that no perpetrator should be spared for destroying nature. There are only a couple of countries like Armenia, Russia, Vietnam, Ukraine etc. that have recognized ecocide as a crime but the matter related to it can only be adjudicated within their territorial limits. The absence of appropriate provisions for spelling out the state liability does not mean that it does not exist. Ecocide is now being seen as an issue of global importance and thus the advocates of the same want it to be seen as a global threat.

"We have not inherited the Earth from our parents; we have borrowed it from our children."— International Union for the Conservation of Nature, World Conservation Strategy. For times immemorial, people have carried a callous attitude towards the environment, it has only reflected the lack of empathy we have for our planet as a race. There are basically two types of ecocides viz, man-made ecocide and naturally occurring ecocide. The clearing of the Amazon, nuclear wars, Tar Sands in Canada etc. are examples of man-made ecocide whereas, on the other hand, tsunamis, cyclones, earthquakes, rising levels of the sea are some of the naturally occurring ecocides. We, humans, have

control over our actions but we cannot control nature. Humanity is facing an existential crossroads. Such a view would have been roundly condemned and derided by vested interests until relatively recently (Source:- Sailesh Mehta and Prisca Merz, "Ecocide- a new crime against peace?", 2015).

A growing body of reliable scientific evidence suggests that the earth has reached a 'tipping point" (Source:- Stockholm Resilience Centre, "Planetary Boundaries", 2009) and we are approaching 'planetary boundaries.' The sole purpose to consider environmental offences as a crime is to stop people from escaping justice and those people can be punished. In *T.N. Godavarman Thirumulpad v. Union of India* (1997) 1 SCC 388, it was observed-

"33 ... As was observed by this Court in M.C. Mehta v. Kamal Nath (1997) 1 SCC 388). Our legal system based on English common law includes the public trust doctrine as part of its jurisprudence. The State is the trustee of all natural resources which are by nature meant for public use and enjoyment. The public at large is the beneficiary of the seashore, running waters, air, forests and ecologically fragile lands. The State as a trustee is under a legal duty to protect the natural resources. These resources meant for public use cannot be converted into private ownership."

So many countries, multinational corporations are to be blamed for the continued destruction of the environment under the disguise of development. These scathing acts are the root cause of the current emergency that the environment is facing. Human activities gradually are the factors that are causing natural calamities. The increase in global warming has caused the sea levels to rise; the forest fires that occur regularly, the oil spills in the ocean that tremendously affect marine life, who is to be blamed for all the loss that happens due to these catastrophes. Thus, there is a dire need to accept ecocide as an international crime. If we can't regulate natural phenomena, we can at least be cautious about what we do and how it shall impact the environment. The creation of a Law of Ecocide will no doubt bind the nations, multinational

entities and individuals under a legal duty and also refrain them from causing damages to nature. The areas and organisms that are Res nullius according to law should no longer witness pollution. There are 10 ecocide hotspots that have been identified by the Guardian. There has been an implementation of a global database of the ecological conflicts by the Environmental Justice Organizations, Liabilities and Trade.

The 'Dirty Oil' also known as the Alberta Tar Sands is one of the most damaging activities on earth. If it continues to move ahead there shall be a resultant loss in the tracts of the boreal forest. Company giants of Europe such as BP and Shell are involved in it and they derive finances from major banks like Barclays, Rabobank etc.

One of the very famous events which each one of us has studied in environmental studies is the disappearance of the Aral Sea located in Central Asia. It lies between Kazakhstan and Uzbekistan and is the fourth-largest inland sea in the world. It happens to have lost three quarters of volume and half the area. Earlier the Aral Sea was powered by the Syr Darya and the Amu Darya which later were diverted in order to use the water for irrigation and eventually led to the drying of the sea. This drying up has cost aquatic life in a disastrous way. It has turned a major chunk of the region into a desert. The climate has changed, impacts can be seen on the flora and the fauna of the region, soil salinization and fishery has been impacted too. The erstwhile USSR owes responsibility for this catastrophe. They deliberately and knowingly cause much destruction. Such acts should be punished in times coming so that no one dares to take the environment for granted.

The paramount object of the steps for the protection of nature should not just be to prevent the damage but also to repair it when it occurs. Penal measures and liability, especially strict liability providing for sufficiently high compensation, ought to be part of all

environmental programs (Source:- Ludwik A. Teclaff, Beyond Restoration-The Case of Ecocide, Natural Resources Journal, Vol. 34 Issue 4, 1991). In most criminal offences intention or as we call it mens rea is very much pertinent. The amicus curiae brief that was submitted to the International Monsanto Tribunal interpolated a framework of the ecocide law which was prepared incongruity with the idea that ecocide is a Strict Liability crime. This framework suggests that for the commission of the ecocide the malefactor does need an intention or knowledge as the activities are harmful to the public at large. Ecocide endangers the interests of society and peace.

In India, we do have a legal roadmap that helps us to put in efforts to protect and preserve our environment. Two main legal bodies, the Indian Constitution and the Supreme Court of India manifest the stakes in conserving nature. We do not have a codified law in India against ecocide but we do have certain provisions and legal statutes that act as safeguards. Article 48-A of the constitution states that it is the responsibility of the government to conserve the environment viz forest, aquatic life, and wildlife. The fundamental duties in part IV of the constitution also state that individuals should treat the environment and ecosystem with utmost care. Antonio Guterres, Secretary-General of the UN very rightly pointed out that humanity is waging a war on nature.

This pandemic made us witness how planetary health and human health was interlinked. Scientists tell us that about 60% of communicable ailments are zoonotic. Zoonotic ailments like Ebola, dengue and Lyme kill a number of people every year in developing countries. It is actually these developing countries that are bearing the brunt of every such activity against the environment. The UN launched the UN Decade on Ecosystem Restoration in 2021 which gave an opportunity to the global community to mobilize and to make a balance between mankind and nature. UNEP also witnessed people's awareness about the environment and that

a number of them are turning to the courts for the same to be implemented. The surge in global population is also a major reason behind so much damage and destruction that is being caused to the environment.

Thus, if we introduce ecocide as an international crime we would be challenging the longstanding human separateness from nature and the nonhuman entities. These nonhuman species are rather entities with inherent rights and value that need to be respected. By creating ecocide as a crime people and corporations shall be legally bound by the duty of care. We have to see a transitional movement from polluter pays to polluter does not pollute at all. The finances of the industrial activities that are hazardous and can be dangerous should be withdrawn. The priorities need to change; humanity and nature should be prioritized. The environment will accrue the legal right to peace (Source:- Polly Higgins, "Earth Is Our Business: extract | Polly Higgins", 2012). Plans can be made to discharge the legal duty of care on all nations to provide assistance to those territories at risk of ecocide in advance. If want to end the destruction at the source we will have to introduce ecocide laws. It becomes much easier and cheaper to stop the problem if we go upstream. A law of ecocide is preventive, pre-emptive and postoperative. Just like in the remarkable case of Milieudeffensie et al. v. Royal Dutch Shell plc, before the district court Hague, the private corporation was held accountable for the environmental destruction vis-à-vis international human rights law more such cases should be addressed

An activity when recognized as a crime is taken more seriously and enforceability becomes easier through courts. Eventually more significance and care will be given to the damage that is being caused by the humans this will stimulate positive actions in the way of preserving the environment. Criminalization of ecocide is actually the bare minimum we can do to solve the problem of

environmental destruction and this will reap maximum benefit. We need to ponder upon this point so that is effectively deters the people from causing the mass destruction. The doctrine of deterrence comes in the role while discussing the criminalization of ecocide, according to this doctrine masses weigh the situation to check if the benefits of the crime outweigh the punishment prescribed. Hefty penalties need to be imposed on the wrong doers.

In toto, this step of criminalization of ecocide is a step towards environmental justice and requires more introspection and retrospection for its global implementation. Merely giving the status of crime won't eradicate ecocide instead spirit of law and ideology should be the driving factor on mitigating damage of the environment.

HOW TECHNOLOGY IS DESTROYING THE MOTHER NATURE: BRUTAL TRUTH OF TECHNOLOGY

About the Author: Vibhuti Sharma and Yogita Sharma are 4th year law students at Fairfield Institute of Management and Technology affiliated with G.G.S.I.P.U.

Introduction

The term 'technology' means the application of scientific knowledge to the practical aims of human life and the continually developed result. The industrial revolution brought advanced technology with immense power that would help people's lives in many aspects. Unfortunately, due to this

advancement in technology, we all began on the path of rapid change in the climate and resource shortage. During the period 1700s and 1800s, when industrialization and technological advancements have been succeeded around the world, the impact of this technology was more on the environment. However, the more that technology developed, the more there was harm and damage to the environment.

In What Ways Is Technology Damaging The Environment?

It's quite impossible to depict what life would be like without technology. We are currently living in a time where everything in our lives is mostly dependent on technology, whether it is smartphones, cars, or computers, technology has become an essential part of our lives, without which it's difficult to sustain. However, these technologies have damaged our world in two primary ways; the depletion of natural resources and pollution.

- 1. Depletion of natural resources- Resource depletion is a way in which technology harms the environment. It means consuming natural resources faster than they can be replenished. Due to the instant growth of the population, the natural resources are also degrading. There are various types of resource depletion, namely, deforestation, fossil fuel, soil erosion, mining for fossils, and overconsumption of natural resources
- 2. Pollution- Pollution is the introduction of impurities into an environment that can cause changes in the environment. Mainly air and water pollution are causing more harm to the environment. Air pollution comes from harmful and excessive gases such as carbon dioxide, methane, and sulfur dioxide; due to these harmful gases, there is a negative impact on humans. Likewise, water pollution is the combination of water bodies like rivers and oceans. Domestic waste, insecticides, and pesticides all pollute the water

The Negative Impact Of Technology On The Environment

Human intelligence consists of the ability to learn from experience, adapt to new situations. understand and handle newly developing technologies, and is able to advance the already developed technologies further. A human can develop technology with the help of available resources. Two million years back, humans learned to make stone tools. At that time, humans used the stone as an available resource and created stone tools. Now with more resources, our technology is developing more, and we all know the technology can do some wonderful things.

Sustained Technological advancement is the essence of the development of our future. However, the following negative impacts of technology on the environment should also be taken into consideration:

- 1. Mining for minerals- To event out possibilities, 35 different types of materials are used in the making of smartphones, though this is just one example of everyday technology. Electronic devices and other modern technologies are manufactured with finite natural resources and precious metals. Mining turns in with a high carbon cost. Usually, in the process, huge machinery is involved, and the usage of a lot of water results in pollution. Mining leads to deforestation, landscape degradation, and water pollution and also releases monstrous quantities of carbon dioxide into the air.
- 2. Massive energy use and carbon footprint- The environmental impact of technology does not cease with raw materials. Manufacturers depend on massive energy to convert them into complex electronic and technological products. Transportation of these products around the world too requires a high carbon cost.

E-waste (electronic waste) - Many people are not aware of the recycling of old electronic devices. That is the reason only an ample majority end up in dumping grounds or are usually burned in

dumps. This affects not only human health but also affects the environment in many negative ways. As well as endangers the health of animals and birds.

Remedies To Reduce The Technological Impact On The Environment

- 1. Circular economy Firstly, we should move away from the idea that technological items are disposable or can be recycled; instead, we can approach a circular economy. A circular economy is an economic system concentrated on the restoration and regeneration of a device for as long as possible. In such an economy, everyone is involved in reusing materials for a more sustainable approach to consumption.
- 2. Government regulations- A big shift is required for a positive change which is to be made not only by manufacturing companies but also by governments, authorities, and individuals. Appropriate legislation should make laws, rules, and regulations, which should be followed by companies as well as consumers concerning the protection of the environment.
- 3. Responsibility of consumers -We as consumers should also take responsibility and contribute on our part. As humans, we have less control over some things, but we can provide a helping hand to limit the negative impact of the technology we use:
- We can utilize the technology we have for as long as possible.
- Instead of buying new devices, we can opt to buy second-hand/reconditioned items.
- In case we have to buy a new device, we can buy ethical, eco-friendly, and sustainable options.
- We can choose the technology which can be repaired rather than things that will break and cannot be used after a certain period of time.
- We can reuse older devices in new ways around our homes, e.g., remote control for different devices (T.V, Air conditioner, etc.), to attend classes, or as a reading tool. The older devices can also be donated to the needy.

4. Recycling tech items - There should be facilities that allow one to put their devices in a "small electricals" bin at a local recycling center. You can also send your devices to specialist electronics waste recyclers or by sending them back to manufacturers.

Conclusion

The mismanaging of technology by innovators, producers, and consumers results in a higher percentage of environmental problems. Technology influences Environmental pollution, ecological systems disturbances, depletion of natural resources, and climatic changes resulting from global warming. Technology helps in the development and increases productivity to satisfy human needs, but unbounded technology impacts the environment negatively. While technology has some negative impacts on the environment, it also has some benefits and positive impacts.

----0000----

GREEN CLAUSE

PART TWO

CEDM

THE REPRESSED VICTIM OF ARMED CONFLICTS - NATURE

About the Author: Mansi Bathija is an LLM student of Cyber Laws and Cyber Security, Final year at Jagran Lakecity University

"Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary." – 1992 Rio Declaration

Introduction

Environmental Depletion and Armed Conflicts or Wars are very closely associated. When we think about a War, our thoughts immediately get connected to violence and human loss. But what is worse are the long-lasting after-effects of the war which impact the Ecology of that area. The Second World War caused an unprecedented amount of environmental damage by using Biological and Nuclear warfare. It was no less than a calamity. However, there is a distinction in purpose between natural or environmental hazards and war. The former might be an accident or a natural occurrence, whereas the latter is planned. For all of known history, "scorched earth warfare" has been responsible for a great deal of damage and misery among local inhabitants. For an instance, the Pandavas burned the Khandava-prastha woodland to create their palace, inflicting death and habitat loss to forest people and wildlife, as depicted Mahabharata epic.

The aim of this article is to elucidate on the role of armed conflicts in environment depletion. Since the early cave dweller threw the first rock, the environment has become a strategic aspect of conflict. To guarantee their enemies' unconditional surrender, the troops of ancient Rome and Assyria reputedly sprayed salt onto their rival's fields, rendering the soil unusable for farming. This was an early usage of "military"

herbicide" and among the most destructive environmental repercussions of war. Of course, war is fought differently today, and it has farreaching environmental consequences. The Military activities in every nation are deemed to have an environmental impact not only in a violent conflict but also in pre-conflict, peacetime or testing phases.

Global Initiatives

Initiatives like the "International Military Council for Climate and Security (IMCCS)" which has been founded at the "Planetary Security Conference" in "Hague" held in 2019, have reinforced armies' participation in environment and climate security. Although "greening defense" is a more common word (especially given the military's status as one of the largest contaminators), formulating climate change as a "threat multiplier", amplifying security threats/risks, particularly in war situations, is also acquiring support.

The development of conscious networks like "Global Military Advisory Council on Climate Change (GMACCC)" in 2009 and also the IMCCS in 2019, composed primarily of active and retired military people, has increased the spotlight on the military's role in climate security. By giving a basis for debating climate change via the security/risk lens, these networks also propagate a security and risk reason based on a rhetorical approach. They underline the need of security agencies preparing for climate change threats and using this as a means to promote climate action and have their own involvement in "climate change governance."

The Indian Military's Initiatives

The Indian armed forces are taking initiatives across the country to enhance its long-term sustainability. By allowing solar energy projects on defense properties, for instance, is helping to enhance the country's renewable energy producing potential. Similarly, during the International Fleet Review in 2016, the Indian Navy deployed its first vessel powered completely by biofuel, and is operational for updating its "blue-water abilities" to attain a zero-carbon impact. "Karwar," that is India's largest naval post and the biggest naval installation east of the Suez Canal, was built to be a "Smart Green Naval Base" with extremely effective energy, hydro, and waste-water treatment facilities.

"Military-to-military cooperation in humanitarian aid and disaster relief" is another prime concern for the armed forces of India. The forces have already been collaborating with the United States of America, Japan, and a few other nations to do joint military exercises. Since the "Indian Ocean Tsunami" of 2004, the military forces of our nation have been in the frontline of "regional disaster response," assisting the neighboring and other countries, especially during Philippines's Typhoon Haiyan.

Indian and Pakistani forces clash atop the world's highest battleground, the constantly receding Siachen glacier, that has melted by approximately 800 meters in the previous 20 years. Some scholars believe that the region's significant military presence has accelerated melting and contaminated the Indus River, which flows through both nations. The Indian Army initiated the "Clean Siachen-Green Siachen Campaign" in order to take up reforestation on our side of the border to reduce their impact on the glacier. However, in order to continue activities in the region and deflect criticism, the military also needs to handle the human waste that already has contaminated the river—as well as plan for the extended effects of environmental crisis on this

continuous struggle.

<u>Depletion Of the Ecosystem During an Armed</u> Conflict

High-intensity wars necessitate and use enormous amounts of fuel, resulting in large emissions of carbon di-oxide and contributing to global warming. Large-scale movements of vehicles, along with the intense use of explosive ordinance, which are capable of causing severe physical harm to vulnerable landscapes and geodiversity. These weapons and equipment used by the military forces can leave environmental traces. Land mines, cluster bombs, and other explosive debris of armed conflicts can stand in the way of agricultural land access and may add to the process of polluting land and water supply with metals and other harmful and aggressive elements. Many typical weapons include dangerous ingredients which are radioactive. During wars, deforestation typically rises. Overharvesting by people who are unexpectedly reliant on firewood for fuel and warmth is a major contributor. Supplies that are used to finance war can be exploited and may be a cause of environmental depletion. Military divisions clash for control of natural forces, oil and petroleum and flora of an area in numerous disputes.

Many wars result in human relocation. Refugee Camps and internally dislocated human beings can have noteworthy environmental impacts, especially if they are incidental and are short of basic amenities such as water and sanitation. When communities in neighboring nations struggle to come to terms with the inflow of people and provide their basic requirements, large-scale refugee flows can have transnational environmental consequences. Conflicts sometimes considered as sustainable are development done backwards, and can put countries back years due to their many environmental repercussions. Not merely because of fresh damage, but because of the growth that would have occurred if the conflict had not taken place.

In 2022, all of these hazardous implications of a conflict have been observed in the infamous Ukraine-

Russia conflict. (Source- IUCN) It has been alleged by various individuals and scholars that the attacks on the military sites or civilian infrastructure, especially in such heavily industrialized nations is causing a surge in pollution and food security crisis of people. These activities are also causing a tremendous amount of harm to the natural environment i.e., the plants and animals of both the affected countries. During conflict, a major concern arises: what occurs to other plant and wildlife species? Have they a right to exist? Who will look after them? Where would other life - forms go or seek safety once thousands of Ukrainians have fled to various areas of the globe? Do the plants and animals of Ukraine share the same nationality as the Russians? Is there a nationality for animals and plants? If that is the case, why are they suffering the impact of every global conflict? Why can't something be done to preserve these speechless species at these times? Why can't something be done for them even after the conflict? These lifeforms are uprooted and killed because they have nowhere to go. Even during times of conflict, it is past time for us, human beings, to think about and feel the agony of all other living creatures on this planet.

Conclusion

International armed conflicts are covered under the ambit of the International Humanitarian Law. There are various treaties, agreements and conventions that lay down the use and protection of natural resources and infrastructure during the time of armed conflicts. However, it persists that these laws have been inadequate to protect the civilian rights, infrastructure as well as the environment. The ecosystem has always been a soft target for the parties at war. The oil spill during the Gulf war which led to a gigantic outbreak of cholera, is a classic example of this. We are yet to see a uniform and permanent international mechanism which lays out stringent guidelines and a justice mechanism for

environmental conservation during the times of conflict. Until then, the environment will remain vulnerable and prone to be used as a target, tool or a trigger of any armed conflicts.

SCOPE & RELEVANCE OF NATIONAL GREEN TRIBUNAL TODAY'S TIME

About the Author: Prakhar Bajpai and Gunjan Yede are 1st year law students at RGNUL, Patiala

Introduction

In a democratic country like India, whose bedrock is the "rule of law," which has cardinal values embedded in her constitution, one of which is the "right to live with dignity" enshrined in Article 21 of the constitution. It has also engulfed it through various judicial jurisprudence pronouncements like the right to a decent environment and the right to enjoy pollution-free water and air for the full enjoyment of life. This right has become an indispensable part of the law book. As people became aware of this right, which was implicitly being recognised as an imperative and inalienable part of the governance system, The National Green Tribunal [hereinafter NGT] was established in 2011 as a quasi-judicial body that was given wider powers than any of its predecessors dedicated to exclusively dealing with cases related to the environment. Throughout the course, this impartial grievance resolving system has done a tremendous job, but in recent years there have been impediments and unreasonable barriers in the way of its effective and judicious functioning. The authors will discuss the same below.

<u>Loopholes In Justice Delivery And</u>

Administration

"The assumption that environment can be saved just by establishing different acts and courts wrongly appraises the character of tribunals. For it is prized human privilege to have good environment to live in. And to put ivory towers to it solely in the name of development would probably engender resentment, suspicion among the masses."

The shortfalls of the institution can be attributed to its own functioning itself. The same can be seen through the cases where the Apex court had to intervene in the cases of Mopa Airport and Subansiri Hydropower Project, where it criticised the expertise of the NGT by further stating that it had not discharged an adjudicatory function. In one of the very significant cases of LG Polymers India and Ors. v. Union of India, although the tribunal gave the verdict stating that the company had, in fact, made a mistake, it found the consequential loss resulting from the devasting gas leak under both strict and absolute liability. The application of strict liability in such disastrous cases is obsolete, following the legal touchstone of the M.C. Mehta case (1987 SCR (1) 819), where situations involving inherently dangerous activities should automatically be dealt with 'absolute liability'. What leads the tribunal to apply both the doctrines calls for numerous characterizations and introspection within the tribunal itself. It is expected of a tribunal like this to cherish the legal precedents with respect to the environment set by the Supreme Court.

The lack of funds by both state and central legislatures has had another 'chilling effect'; any institution that protects the "rule of law" of the country will become fragile if it is not shielded by the legislature through the allocation of funds. Gopal Subramaniam, counsel for NGT, informed the Apex Court (Source- Legal India) about the sorry state of affairs of NGT: where each of the members has to pay from his own pocket for

traveling.

There are growing vacancies in the tribunal. It lacks adequate manpower to dispose of cases or even perform its rudimentary functions. Due to the staggering number of vacancies eleven years down the line, it has gained little support from the various state governments. The loopholes here are not just limited to financial and procedural limitations but also obsolete functioning down the road. It was a tribunal formed out of expert judges to dispose of the cases in a time-bound manner. Since its inception, the tribunal has been consistent with forming committees instead of expeditiously solving cases by deliberation, discussion, and disposing of them. Given that the tribunal itself consists of the expert body, shifting its burden on other bodies exceedingly dilutes the tribunal's functions and prominence. There are consequences of this passing of burden from here to there, which result in a delay in the delivery of environmental justice. The main thrust of the paper is that this practice should be stopped as it is outmoded and makes the tribunal sluggish.

<u>Loopholes In The Jurisdiction And Composition Of</u> The Tribunal

The NGT is a statutory body established under the National Green Tribunal Act, 2010. This act lays down the jurisdiction and composition of the tribunal. The act defines "substantial questions related to the environment" as ones that affect the community as a whole rather than an individual or a group and thereby limit the jurisdiction of the tribunal to only those cases where a substantial number of people have been affected in order to satisfy the definition. Due to this, the gamut of the NGT has been restricted to technical questions and disputes about environmental breaches. This can be observed from the case of Tagi Tara Vs. Rajendra Singh Bhandari & Others (2017 SCC OnLine SC 1165), wherein the issue was whether the green tribunal is vested with the power of guiding and directing state pollution control boards to designate qualified personnel or not, the court held that the jurisdiction

of the tribunal is only limited to substantial questions related to environment which relate to disputes and not academic questions like these.

According to section 19 of the act, the tribunal has the power to hear cases falling under the statutes specified by schedule 1 of the act, but various important environmental acts such as the Wildlife Protection Act 1972, Indian Forest Act 1927, Scheduled Tribes (Recognition of Forest Rights Act) 2005 and State legislation for environmental protection is not incorporated in the spectrum. Thus, unfortunately, disputes arising out of these acts are not under the jurisdiction of the tribunal.

Section 5 of the act specifies qualifications for the expert members of the tribunal. According to this, a person must have a high education qualification in the fields of science or have extensive experience in administration. It is a sad state of affairs that it does not include veteran environmentalists, ecologists, sociologists, and local community members who have unparalleled rich knowledge about environmental protection. Thus, there is no doubt as to why experts claim that the tribunal has a "lack of environmental finesse".

Conclusion And Recommendations

The idea of a special green court to protect the environment of the country is a commendable step to vouch for, but the ivory towers raised through judicial and administrative functioning have weighed it down. It is observed that when the tribunal wanted to fly high with the flagship of protecting its citizens' utmost rights, its wing was cut down by different hierarchical institutions. To address this predicament, it is first and foremost the duty of the responsible authorities to do their duty actively by providing adequate funds. Ensuring the quality and integrity of judicial appointments is also the way to success, as this will not only dispose of the cases in a timely manner but will also ensure a sense of trust

among the public in pursuance of environmental justice.

By not doing what it must, this tribunal is not only underestimating the discretionary power of the public but is also losing its accountability. The tribunal is a public institution, and it is paramount for it to not only inspire trust in the public but also offer reasonable explanations or expostulation.

AN OVERVIEW OF THE COMPANIES ADAPTING TO THE ENVIRONMENTAL LAWS AS IT IS THE NEED OF THE HOUR

About the Author: Vidhi Panjwani is 3rd year law student at Jagran Lakecity University, Bhopal. Akshat Jain is a final year student of B.B.A. at SCMS, Noida.

Introduction

The world's pollution has become one of the most pressing challenges in terms of the socio-economic progress of the country. Pollution remains a major challenge to a country like India. The environmental crisis has been overlooked for many years to gain more profit. And companies have contributed equally in such a crisis, and now is the time to give back and adopt sustainable alternatives. Making the necessary transition to a sustainable economy is possible by harnessing corporate power. Over the past years, it has been mandated for corporations and companies to become environment-friendly. The public sector and government are no longer the only entities responsible for society and the environment, but also

the private companies and corporations that deal with the production of goods and services to maximize their profit.

The basic idea behind CSR was also that businesses should realize that while generating profits, they can also contribute to enhancing economic growth and increasing competitiveness while ensuring environmental protection and promoting social responsibility, including consumer interest. CSR is the corporate act of giving back to clients, clients' communities, and the larger society in which businesses operate in a way that is meaningful and valuable to society. In doing so, they show their appreciation for the environment in which they operate and a sense of belonging to society at large by expressing gratitude.

Corporate Social Responsibility

Section 1 of clause 135 of the Companies Act, 2013 governs the CSR activities in India. The Ministry of Corporate Affairs has mandated that companies spend at least 2% of their annual net profits on CSR activities. The profits from branches outside of India are not included in the figures.

The areas of focus of the Rule regarding the environment include the following: environmental sustainability, ecological balance, conservation of natural resources, protection of plants and animals, and maintenance of air, water, and soil quality. CSR objectives include eliminating negative environmental externalities, fostering employee volunteerism, and donating to charitable organizations.

Corporate Environmental Responsibility

Corporate Environmental Responsibility (CER) is concerned with the environmental aspects of Corporate Social Responsibility (CSR). In general, it is defined as the way in which organizations incorporate environmental issues into their operations in order to eliminate waste and emissions, maximize resource productivity, and minimize activities that harm a country's natural resources. Environmental liability arises from the fact that corporations need to be aware and feel responsible before or while causing harm to the environment in order to either reverse or restore the damage or pay compensation, fines, or charges to cure the environment.

How does it benefit companies?

Globally, business practices are brought to light within the context of the information revolution, affecting a company's reputation. Due to this, environmental stewardship becomes a more frequent metric by which companies are judged. In order to remain competitive, organizations need to show environmental awareness and social responsibility to consumers, shareholders, employees, and partners. One way to achieve this is to touch people's emotions. Not only do consumers buy safe and healthy products, but they also prefer products produced in a and environmentally socially responsible environment. Companies must also show a greater level of transparency to consumers. In this way, CSR and environmental management can be beneficial to companies.

Case Study

A great deal of attention has been paid by KPMG to corporate environmental responsibility since 1996. The company is currently preparing for ISO 14001, the environmental management standard. Their sustainability programs are included throughout all aspects of their operations. KPMG has five environmental impacts as a company: water, energy, waste, paper, and transportation. Currently, the company saves £250,000 per year through its environmental management program.

Judicial Intervention

In Vellore Citizen's Welfare Forum v. Union of India (AIR 1996 SC 2715), it was held by the Supreme Court that industries could not be permitted to destroy the

environment, degrade the ecology, and pose a health risk or continue to operate unless they implement pollution control devices. It was stated that such industries are vital to the country's progress as they generate foreign exchange and create employment, yet environmental principles of sustainable development should be used to balance the impact of these industries on the environment with the need for development. Furthermore, it was noted that the 'prevention principle' and the 'polluter pay principle' are crucial to sustainable development, which means that polluters are liable for paying compensation to both individual victims and the costs of reversing environmental damage.

Recommendations

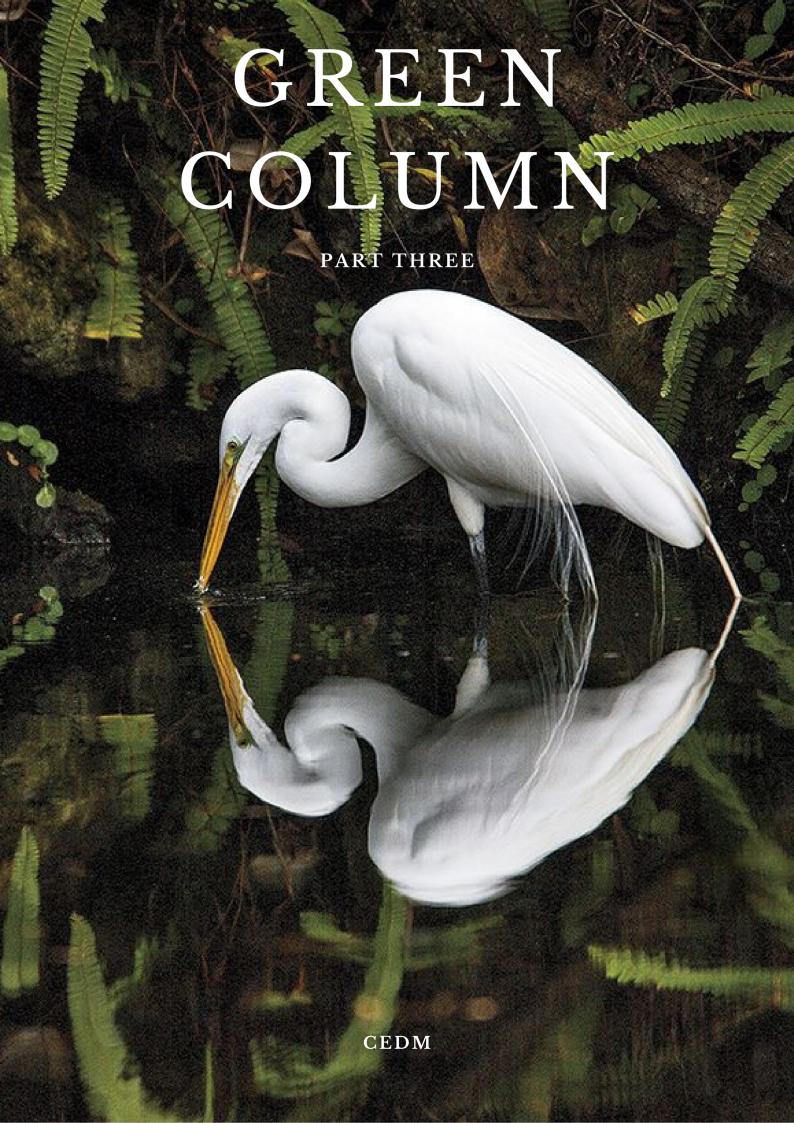
- Planning and implementation: Organizations responsible for are planning their environmental activities and communicating them to members and stakeholders. This planning should include an evaluation of environmental impacts and the identification of alternatives. Organizations should use environmentally responsible management practices for hazardous materials that are used in operations, including biological products. This is especially in regard to acquisition, handling, storage, safety in use, and disposal.
- Increasing awareness and motivation: Business reports, environmental policies, newsletters, awards training programs, programs, sustainability days, etc. All of these methods may be used to motivate employees to become more aware of environmental values. To raise awareness about the health and sustainability benefits of operational decisions and to acknowledge and encourage employee actions. organizations should increase employee involvement in sustainability and health initiatives.

Conclusion

With the growth of environmental law and a desire to save the environment, corporate sectors have been spurred to live up to or adhere to the regulations and legislation set forth by governments in order to ensure a safe and clean environment for everyone. In order to address environmental concerns through CSR initiatives, it is vital that corporate intentions turn into actions.

A new and emerging facet of Corporate Social Responsibility, Corporate Environmental Responsibility emphasizes the importance of the environment within which a business operates. With the rapid advancement of the digital age, environmental concerns are gaining momentum because of the rapid degradation of our natural environment and habitats, which can even threaten the very existence of life on earth.

----0000----



INCREASING TREND OF RAMPANT ENVIRONMENTAL VIOLATIONS IN INDIA

About the Author: K. Chandra Sekhar Prasad is a 4th year B.A.L.L.B (Hon's) student at Saveetha School of Law, Chennai.

Introduction

The term 'Environment' is derived from the French term 'Environia' which means the 'combination of biotic and abiotic factors surrounding us'. The Indian constitution during its initial stages did not give a special preference to the Environment. But due to the obligatory nature of various conventions which are ratified, the Indian government had passed a specific 'The Environmental Protection Act' in 1986 which later gave rise to various environmental legislations. The impact of human activities on the environment is abominable. Most of the adverse effects which we are facing today are the direct attributes of human activities. According to a study, the lands, plants, and oceans have taken more than 55% of extra carbon that is put into the atmosphere and the remaining 45% stays in the atmosphere for thousands of years which will eventually be absorbed by oceans turningthem into acidic. It is universal fact that, with this range of emissions of greenhouse gases, the atmosphere keeps a temperature of 400 degrees Celsius like that of Venus in the coming future.

Impact Of Violations

The number of cases registered for environmental-related offences has increased to 61.767 2020 from 34.676 in 2019 (Environment-AR-2020-21). The environmentalrelated offences had risen to 121% when compared to 2019. The World air quality report of 2020 clearly stated India as 3rd most polluted country in the world. India is a big contributor to greenhouse and gases facing environmental degradation. Vehicle emissions,

power plants and industrial emissions are agents of air pollution in India. The main reason for such largescale degradation is rampant environmental violations across many states in India. The rivers are not exempt from pollution, according to the report of the Central Pollution Control Board (cpcb.nic.in) there are 351 polluted river stretches found across India out of which Maharashtra tops the list followed by Assam and Madhya Pradesh. The main reason for such odious pollution is the Industrial discharges into the rivers which are killing the rivers and aquatic life in them. The indirect effect is also seen in people who are consuming it. Lastly, the other victim of manmade pollutionis the 'Land'. Land pollutioncan be defined as the 'permanent change in characteristics of the land which is nonreversible'. The main reason behind land pollution is deforestation and the dumping of all kinds of waste onto the land. The urban sprawl is of huge concern as it is depleting the green cover in developing countries. India is transforming from a rural country to an urbanised society. The drastic leap in population is also a factor behind environmental pollution. It is leading to the over utilisation of the resources which in turncausing air, water and land pollution. IQ air, a swiss firm mentioned that there are 63 Indian cities in the 100 most polluted spaces on earth. According to the report published by NCRB, there is a 78% of increase in offences related to the environment.

Judiciary And Environment

The chronology of the environmental legislation in India itself describes the role played by the judiciary in safeguarding the environment. Many amendments were introduced in the post-independence period. Many tragic incidents took place in India after which

principles were framed by the judiciary system. humans are adversely impacting the atmospheric The judiciary system role from past asbestos case to recent ban of plastic is unremarkable. M.C Mehta had played a prominent role in shaping and effective implementation of existing legislations and new rules. However, the judiciary has to be strengthened more to protect the environment.

Suggestions

By having a glance at the above statistics one can come to a conclusion on the implementation of the Environmental legislations in India. The suggestions to curb the environmental violations are-

- To restrict the unsustainable exploitation of natural resources.
- To restrict the over-mining of resources.
- To seize the improper greenhouse gas emitting industries.
- To limit the vehicle purchases of an Individual.
- To seize the industries polluting rivers by the release of untreated waste into rivers & land.
- To regulate/ban pesticide usage in agricultural production.
- To regulate the urbanisation and plan a proper waste management system.

Conclusion

There are many environmental laws in existence but few of them consist of loopholes and few of them are not implemented effectively. The judiciary is playing a vital role in protecting the environment and it is up to the executive body to implement the laws effectively for a better environment. The Central Pollution Control Board and State Pollution Control Board are responsible to inspect and seize the polluting industries. Environmental violations are playing a major role in climate change across the globe particularly in India. Pollution as a result of environmental violations has a significant impact on climate change and public health. Apart from the natural phenomenon, the greenhouse gas emissions by

conditions. The drastic decrease in forest cover and irresponsible emissions of pollutant gases is, directly and indirectly, affecting the agricultural and economy of the nation. The environment has the capacity to rejuvenate itself but it just needs the cooperation of human beings. India being home to various climates and natural resources should be protected and safeguarded by everyone.

Bioprospecting based Patent: **Environmental** Concern or **Opportunity?**

About the Author: Aniket Nihal is pursuing LL.B. from Chotanagpur Law College, Ranchi after his M.Sc. (Biotechnology) from Birla Institute of Technology, Mesra.

Introduction

India, a country known for its legendary biodiversity heritage, home to around 7-8% of all globally reported species, enjoys a variety of ecosystems due to its diversified climatic conditions. (Source:- India's 5th National Report to the Convention on Biological Diversity, 2014) The livelihood of Indians, specifically tribals or local communities, directly or indirectly depends on biodiversity. Due to the vast scope of biotechnological and/or medical research bioprospecting of such resources for industrial or medical applications, it is attracted not only by researchers but also by private companies. Development of anti-HIV agent drug from the compound: calanolides A and calanolides B, which were isolated from the extracts from twigs and leaves

of Calophyllum lanigerum and latex of Calophyllum teysmannii respectively, a tree found in the tropical rain forest of Sarawak, Malaysia is one the example of a biotechnological research-based patent which is obtained from the use of bioresources. (source:-Gupta R, Gabrielsen B & Ferguson S M, (2005) Nature's Medicines: Traditional Knowledge and Intellectual Property Management) Like this, there are several such examples that could be found in the literature that shows the numerous patents that have been obtained from the outcome of biotechnological research, which is based on the exploration of bioresources.

<u>Legal Intervention In Bioprospecting</u>

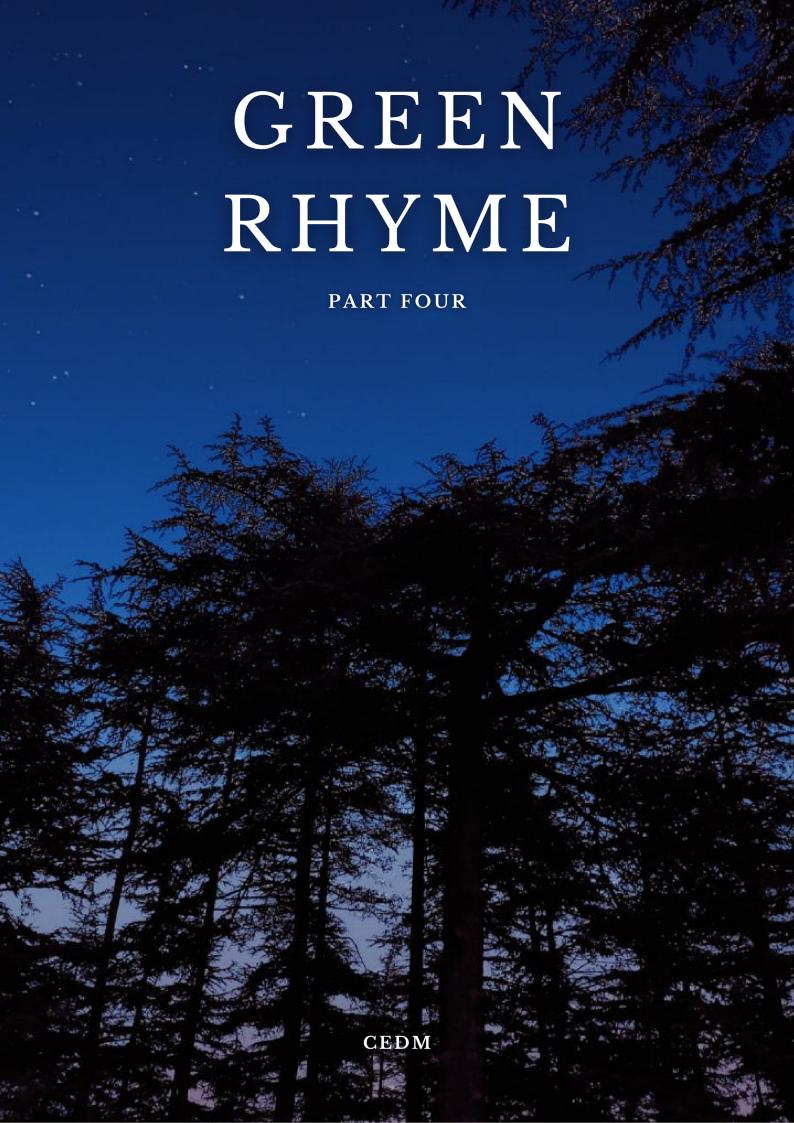
A multilateral treaty, the "Convention on Biological Diversity" (CBD), was formulated with the aim of conservation and sustainable use of biodiversity; and sharing of benefits arising out from the use of genetic resources. Further, for the correct implementation of this convention and benefitsharing mechanism, "The Nagoya Protocol" was adopted in 2010 by the conference of parties to CBD at Nagoya, Japan. To meet the obligation of CBD and the Nagoya Protocol, the Indian government enacted "The Biological Diversity Act, 2002"; and related Rules in 2004 ("The Biological Diversity Rules, 2004"); and Guidelines for successful implementation of access and benefitsharing mechanism in 2014 ("The Guidelines on Access to Biological Resources and Associated Knowledge and Benefits Sharing Regulations, 2014"); and "The Protection of Plant Varieties and Farmers' Rights Act, 2001" (especially for plant genetic resources). Annexure 1 of the Guidelines enlists the options available for users and providers of bioresources to share monetary and nonmonetary benefits, which are subject to the mutually agreed terms between its various stakeholders. (Annexure 1, Guidelines on Access to Biological Resources and Associated Knowledge and Benefits Sharing Regulations, 2014) There is a number of implications for the commercial exploitation of bioresources. The exploitation of

of *Calophyllum lanigerum* and latex of *Calophyllum* such resources has an adverse effect on the *teysmannii* respectively, a tree found in the tropical environment as well as on the socio-economic-rain forest of Sarawak, Malaysia is one the example cultural-religious aspects of the local people.

Legal intervention in bioprospecting and commercialisation of a product developed based on bioresources keeps the balance between the environment and sustainable growth of people and country. According to the NBA Annual Report 2017-18, the authority received around 18.38 crores of rupees as the access and benefit-sharing amount in the year 2017-18. (Annual Report 2017-18, National Biodiversity Authority) Earlier to this, NBA also reported huge monetary as well non-monetary benefits arising out from the use of bioresources, such as receiving 5% royalty of free on board which amounted to a sum of rupees 39.09 lakhs in the seaweed case, and 5% royalty of free on board which amounted to a rupee of 55,035 in the neem leaves case. Another landmark case on access and benefitsharing is "The case of Arogyapaccha", wherein the Jawaharlal Nehru Tropical Botanical Garden and Research Institute obtained a patent on a drug "Jeevani," which has health benefits, was developed from the chemicals isolated from the Arogyapacha plant (Trichopus zeylanicus) and the selection of plant was based on the traditional knowledge of regional "Kani" community of Kerala. The patent holder enters into an agreement with Kanis to share 50% of the royalty and licensing fees. (source:- Handbook on Biodiversity Laws, NLSIU) This case set an example of ethical practice as the sharing of benefits between the patent holder and the Kani community established prior to the existence of any national law in this regard.

Conclusion

There are several benefits, such as money as well as non-monetary, arising from the formulation and implementation of access and benefits sharing mechanisms under international and national laws. Therefore, a bioprospecting-based patent becomes an opportunity for sustainable growth when it follows the path of ethical practice and is granted based in accordance with international and national laws.



A NEW PURPOSE

The poem talks about a girl named Brianna who always had one purpose in life- to become a zoologist and study the life in the wilderness of the African savanna. However, as she finally reaches her destination, she finds her dreams to be completely shattered because all she sees is destruction, death and drought. Unable to find any of the denizens of the savanna, she promises to take on a new purpose in life- protecting and rebuilding mother nature.

About the Poet: Yuvraj Singh Walia is a 1st year student at Himachal Pradesh National Law University, Shimla

The sun is as yellow as a robin's beak
In the tall grasses of the ruthless savanna
The stand-still acacia tree with a troop of restless
baboons

Watching from a safe distance, a girl named
Brianna

With the patience of a Bengal tiger and the eyes of a harrier hawk,

She's perched on a pitch-black granite rock
With her hands mimicking the motion of a happy
bumble-bee,

She silently watches the rich red plumage of the hunky hornbill

She dips her brush in the blood ochre bowl
The next thing she knows is down at her feet a
coal-coloured mole

With a blink of the eye and a flicker of wind

The mole descends to heaven in the clutches of
the gluttonous raven

"That's just life, c'est la vie"

She says to the bee

This is the real beauty of this planet that completes the circle of life

The hoop that never ends

With her funnel, microscope, and fancy test tubes
She meticulously examines the life around
The very few rhinos, and hardly any wild dogs
The nearly extinct cheetah and a handful of

warthogs

Exploring further her heart pains
There is no vegetation left on these wild plains
Distress, death, and drought run amok
In the same lands where they would roam free,
the great blackbucks
Not a drop of water to drink

Nothing more left to think

To make it today and reach tomorrow

Is a task so herculean, marred with stress and sorrow

She kneels down on the footprint of a humungous

African Elephant

The footprint, the beast's only remanent

Her stomach churns with hurt and grotesque

It is her brothers and sisters who have created this

To study the wilderness was forever her dream
It still won't turn to reality, she screams
For the damage done cannot be taken back, it seems
Suddenly her eyes lay on the safari ants toiling below
She watches them work together in a highly
synchronized flow

With her hand close to her chest, right below the breasted roller's nest

She pledges to help nature restore its wild beauty

To make people aware of their natural duty
The world is ours and so we must protect
All its splendor, magic, and wilderness
Her dreams might have been shattered today
But will they forever remain this way?
Wiping away her dead-sea tears
She springs up with a new purpose in her head
To once again turn to gold
This awful piece of poison lead.

----0000----

CHIEF PATRON

Hon'ble Justice Amjad Ahtesham Sayed (Chief Justice, High Court of Himachal Pradesh & Chancellor, HPNLU, Shimla)

PATRON

Prof. Dr. Nishtha Jaswal (Hon'ble Vice-Chancellor, HPNLU, Shimla)

EXECUTIVE EDITOR

Prof. Dr. S.S. Jaswal (Registrar, HPNLU, Shimla)

Editorial Team

Director & Editor: Dr. Girjesh Shukla

Co-Editor: Dr. Pushpanjali Sood

Student Editor:

1. Aniket Singh

2. Vaishnavi

3. Siddharth Kumar

4. Aayush Mishra

5. Kushang

6. Divyanshi Deveshi

7. Dedipya Tewary

Front page picture credits:

Madhvendra Pal Singh
Student at Himachal Pradesh National Law University, Shimla

Picture credits: Green Rhyme Dedipya Tewary Student at Himachal Pradesh National Law University, Shimla

Picture credits: rest photos
Pinterest

