

MAHARASHTRA NATIONAL LAW UNIVERSITY AURANGABAD

COMPARATIVE LAW E-NEWSLETTER

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ENVIRONMENT AND DEVELOPMENT



ABOUT THE NEWSLETTER

Devoted to the study of comparative and transnational laws and legal systems, the Comparative Law e-Newsletter (CLN) is an open access, peer-reviewed and refereed newsletter published bi-monthly with six issues per year, by Maharashtra National Law University Aurangabad. It embraces analytical, theoretical, empirical and socio-legal attempts surrounding the public and private law aspects of various legal systems. It aims to encourage comparative legal studies in the transnational context of legal history, theory, philosophy, legal cultures and traditions, by tracking the developments in the field across the world. The newsletter seeks works that are dynamic and interdisciplinary nature with specific display comprehensive knowledge on the subject matter.

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FROM THE VICE-CHANCELLOR'S DESK

Maharashtra National Law University, Aurangabad is established by Maharashtra National Law University Act, 2014 (Act No. VI of 2014) passed by State Legislature of Maharashtra. The University commenced its operation in the year 2017 having its headquarters at Aurangabad, Maharashtra and since then has been thriving to achieve academic excellence. The University has in the past hosted national level seminars and conferences and has been visited by legal luminaries who have enhanced and furthered the objective of making this institution of national importance.

I strongly believe that it is the students, faculties and the non-teaching staff who plays a pivotal role in the over-all development and growth of an institution. It is under able guidance and constant support of judges, eminent legal practitioners and academicians that the institution is on its path of achieving excellence in the field of legal education. This newsletter is one such initiative undertaken by the faculty members and students of Maharashtra National Law University, Aurangabad. This newsletter aims to bring about various discourses related to comparative laws. It will be theme-based bi-monthly newsletter which will promote and enhance academic deliberations from the members of legal fraternity. In an era where development is rapidly taking place and law is ever-expanding and growing, the need for such inter-disciplinary approach has to be seriously undertaken.

I am glad to present this newsletter to the legal fraternity and civil society and encourage young scholars, academicians and students from various law schools in the country to contribute actively to be a part of this journey and make this effort a grand success.

I congratulate the team for their untiring efforts during this pandemic situation in bringing this newsletter to light and wish them a success in their vision and endeavour to reach a wider audience and facilitate scholarly discourse in this area.

Wishing you all the very best!

Regards, Prof. (Dr.) K. V. S. Sarma Vice-Chancellor, MNLU, Aurangabad.

MESSAGE FROM THE TEAM

We are enthralled to launch the very first newsletter by Maharashtra National Law University, Aurangabad. This occasion marks release of the First Volume, Second Issue of the Comparative Law Newsletter. The newsletter is an initiative undertaken by faculty members and students of Maharashtra National Law University, Aurangabad. It is an effort to discuss and bring forward various contemporary discourses and issues related to the domain of comparative laws.

We hope you enjoyed reading the First Volume, First Issue. The theme of the First Volume, Second issue of the newsletter is Environment and Development. The theme was very carefully thought off and agreed upon by the team members in the light of recent and related events and developments around the world pertaining to this area. The First Volume, Second issue is based on contributions by faculty members, students and practitioners; however, we look forward and comprehend, that the upcoming volumes and issues will be based on submissions by academicians, lawyers, young students and other esteemed members of the legal fraternity.

We imbibe upon this journey together, and hope to develop a positive outcome with this effort undertaken to develop a never-ending era of learning and growing. We would like to thank the support and encouragement received by Hon'ble Vice-Chancellor, Prof. Dr. K.V.S. Sarma, under whose able guidance this newsletter has been released. We acknowledge the untiring efforts made by the faculty incharge and the student members who were behind the scene working for the timely release of this newsletter. We would especially take up this opportunity to take a few names, without whose efforts this newsletter would have never become a reality, our student team comprising of Ms. Soumya Thakur, Ms. Nikita Mohapatra, Ms. Aastha Chahal, Ms. Chetna Shrivastava, Ms. Aishwarya Pandey, Ms. Simranjeet Kaur, Mr. Abhishek Singh, Mr. Husain Attar, Mr. Devansh Kathuria, Mr. Anubhav Mishra, Mr. Anuj Agarwal, Mr. Sulabh Gupta, Mr. Rohan Kapoor, Mr. Pranay Bhattachayra, Mr. Ansuman Mishra, Mr. Anant Choudhary, Mr. Abhishek Jha, Mr. Sumant Jee, Mr. Narendra Singh Jadon, Mr. Abhijeet Mittal, Mr. Indronil Choudhry, Ms. Pranshi Gaur, Ms. Pranali Kadam, Ms. Shreyashi Srivastava, Mr. Siddhant Vyas, Ms. Riya Mehla, Ms. Pavitra Pottala, Ms. Kavya Singh, Mr. Soham Bhosale, Ms. Mehek Wadhawani and Ms. Jidnyasa Sakpal.

This newsletter is special and memorable for all of us considering that even during this pandemic situation and the challenges we faced in form of lack of physical communication between us, still, our resolve and dedication resulted in the timely release of the newsletter as decided. We are utterly grateful and thankful to everyone who has been a part of this initiative in any form.

Hopefully you will enjoy reading it and keep supporting and encouraging us in the near future. Thank You.

Enjoy Reading and Keep Growing!

Ms. Neha Tripathi and Ms. Soumya Rajsingh,

Faculties In-charge, Comparative Law Newsletter

Student Team: Ms. Soumya Thakur, Ms. Nikita Mohapatra, Ms. Aastha Chahal, Ms. Chetna Shrivastava, Ms. Aishwarya Pandey, Ms. Simranjeet Kaur, Mr. Abhishek Singh, Mr. Husain Attar, Mr. Devansh Kathuria, Mr. Anubhav Mishra, Mr. Anuj Agarwal, Mr. Sulabh Gupta, Mr. Rohan Kapoor, Mr. Pranay Bhattachayra, Mr. Ansuman Mishra, Mr. Anant Choudhary, Mr. Abhishek Jha, Mr. Sumant Jee, Mr. Narendra Singh Jadon, Mr. Abhijeet Mittal, Mr. Indronil Choudhry, Ms. Pranshi Gaur, Ms. Pranali Kadam, Ms. Shreyashi Srivastava, Mr. Siddhant Vyas, Ms. Riya Mehla, Ms. Pavitra Pottala, Ms. Kavya Singh, Mr. Soham Bhosale, Ms. Mehek Wadhawani and Ms. Jidnyasa Sakpal.

INTERVIEWS



"The more interest you have in space the more interest you will also have in cleaning it up"

Prof. (Dr.) Frans G. Von Der Dunk

Prof. (Dr.) Frans G. Von der Dunk is the Harvey and Susan Perlman Alumni / Othmer Professor of Space Law at the University of Nebraska-Lincoln's LL.M. Programme on Space and Telecommunication Law. He also is Director of Black Holes BV, Consultancy in space law and policy, based in Leiden.

1. We don't have space environment law, so, in your opinion how can we proceed to solve the issue of Space Debris without breaching any nation's sovereignty (basically, interfering with space object of nations) and have their cooperation at the same time?

This is a very fundamental question. You cannot create any International law if you want States to remain totally sovereign in their discretion as to what to do. Because International Law depends on the willingness of the states in their sovereignty and if you consider that, giving away of sovereignty will not get anywhere. The essence of International Agreements is that sovereign states agree to limit their sovereign discretion in how to address certain issues. So, in terms of space debris, lawyers can come up with great International texts for treaties which would severely address the issue but if the states are not willing to agree to them, then we will get nowhere. So, I would rather turn this around and say in order to create Space Environmental law, states should be willing to limit their freedom of action, which they otherwise might have. For instance, India undertook a Satellite test in Outer space a year and half ago and created a lot of space debris, that is bad for Space debris but might be good for Indian sovereignty. But that's the question, that we as humankind have to create a better environment in the Outer space and States have to be willing to agree that they should not do the tests in the outer space anymore.

2. NASA is expanding on the agency's relationship with private companies like SpaceX and other companies such as Blue Origin and Virgin Galactic are specializing in sub-orbital space tourism. So, considering all the upcoming and future projects of private as well as public space actors, how can we ensure that the concept of sustainable development will not fade away in space development due to lack of Space Environmental laws?

On Prolongation to the previous answer, there has to be an International agreement on what proper behaviour and means of outer space. Ideally there has to be a treaty, perhaps which is not possible by way of customary international law. No country will be willing to impose heavy burdens on its private sector if those sectors of other nations are not subject to the same burden because their change of the commercial competitiveness of the operations. So the first key point is that the major countries in space tech should agree on the international level that certain behaviour in space is no longer acceptable.

Once that happens, the space law requires the state to be responsible and liable for all that the private entities do. So, the moment there exist an international agreement which say that states cannot do anything bad to the space environment, then the United States (or any other Country) would make sure through its national authorisation and supervision processes that private entities such as those mentioned are subject to those obligations. The private entities are subject to authorisation and licensing by the US Authorities, and within licenses, the entities are confronted to obligations that the United States has to comply with the international law. so far the international obligations, are very little concerned about the Space debris, precisely because there is no body on International Space Law which states how to behave in outer space. But in the licensing in the US, the operators have to now answer a lot of questions regarding the space debris and how safe their operation and if they send a satellite, they should have a plan to do something after the life of satellite regarding its disposal. If their answers are found unsatisfactory, the licenses are not issued. The UN guidelines are certainly available to an extent but which are not yet Law or part of becoming a customary international law.

3. As we know that still many nations don't have national space legislation, but their space activities are increasing at humongous rate, so what steps can the governments take in their domestic capacity to curb the rising issue of space debris?

The answer to this question is to establish appropriate national space legislation. The main reason is that the nations take responsibility and liability under Article 6 and Article 7 of the Outer Space Treaty ,1967 and also for their private space sector activities. The main question that arises is whether the government wants to allow private sector space activity and this in itself is a sovereign matter. It depends upon the history of the country, like for example the Soviet Union was for formed on a communist ideology and hence it never required a national space legislation as the state itself conducted all the space activities. The Soviet Union performed all the space activities in compliance to their international obligations. Now in the present times we are seeing that most of the countries are allowing private space activities hence here the state can control such activities through such legislations. I also urge India to take steps regarding such legislations. All the countries should get their act together and make such laws for a better outer space environment.

4. The report of International Interdisciplinary Congress on Space Debris, apart from fragmentation and breakup events, another major source of space debris is placing satellites in orbit. Pieces like explosive belts, nozzle top and lens cover are separated from satellites and become uncontrollable space debris. These pieces form 18% of total space debris and another 15% are from inoperable satellites. In this situation it becomes difficult to track which space object belongs to which nation, so in your opinion can the international state responsibility of nations be raised in respect to the space debris?

The issue is not just related to responsibility but liability because when you find liability in place, you can claim compensation for damages. The problem is not so much of a legal nature, it's first and foremost of practical nature. How can you identify to start with where a particular piece of space debris comes from. If it's a whole satellite it's pretty easy to identify it, even though registration convention and registration requirement of international law are not perfectly abided by.

There are many satellites which are not registered with United Nations and country to what registration convention calls for, but it's easy to find background of satellite and its launching state, however after fragmentation if the fragment of satellite hits another satellite it may be very difficult to find the launching state or a responsible state. Once you can find it, you have liability provisions. There's not yet any international obligation to not pollute outer space or clean up your mess after you are in outer space. So, until we have an international obligation, responsibility might not be an issue but liability maybe. But that depends on the identifying who is the launching state and liable state for particular piece of space debris. So in that sense the biggest steps we can take towards regressing this problem could be to further enhance our space situational awareness and tracking systems and controlling and identifying what's going on there and concurrently with that building an understanding at international level that it's no longer appropriate to use explosive belts or to such sort of things on purpose in outer space.

5. In these situations we know that every space actor has contributed towards space debris in different percentages, so, in your opinion can we decide who will pay for the removal of space debris? And if every nation will pay for the removal of space debris, then what should be the ratio of contribution?

There is no ideal approach of this as what matters is that what the major countries have come to an agreement on this and it may not be the right way for saying that what percentage each will contribute as different countries are in different stage of development. So this is a very complex political discussion, it is important to realise that we all are on same boat that is the space and the more you are interested in cleaning the boat (space) the more you will help. But unfortunately human psychology is different as they will try to close the door only when the cow has escaped. So i am afraid that we need a major accident that a million dollar satellite being incapacitated by a piece of space debris before everyone starts thinking that maybe it's better to pay couple of million dollars annually to someone cleaning up space then to run a risk of losing satellite. You may get in touch with insurers as they may come with a scheme that whoever will try their best to limit space debris will get better insurance rate or something like this. The main thing is that the state should address this political issue and take financial burden to solve it and then they can also impose some burden on private sectors and only when the urgency is felt we will see some real progress.

INTERVIEWS



"I perceive the concept of 'sovereignty' as fluid and constantly evolving. I do think that the subtle remoulding of sovereignty over time will make States more responsible for impacts on the global environment over which they have had some control."

Prof. Steven Freeland

Prof. Steven Freeland is the Professor of International Law at Western Sydney University, specialising in Commercial Space Law, and previously the Dean of the School of Law. He is a Member of the Advisory Group of the Australian Space Agency. He has also been appointed by UNCOPUOS to co-chair multilateral discussions on the exploration, exploitation and utilisation of space resources.

1. There are certain quintessential elements of environment which fall under the direct control of a particular country, for instance Amazon Rainforest which are revered as the lungs of earth are directly under the control of Brazil. The industrially motivated approach is aiding to the same. The recent debacle of unprecedented forest fire in the rainforest was neither checked nor questioned by international community. How to avoid such situations in future, how to preserve such spots from rampant destruction when the country terms them as domestic affairs?

Clearly, there are many challenges that we face as regards the global environment. We must take stock of our current approach to mitigating the adverse impacts of our actions and find ways to change our 'business as usual' approach, which is not working. The Amazonian rain forests are, as I understand, a vitally important element of the Earth's ecosystem and, as your question suggests, have been described as 'the lungs of the Earth'. As such, its destruction is disastrous for all of us. Under current international law principles, its management falls to the purview of national law primarily that of Brazil – and that country's Government should be encouraged to take all steps to comply with its international obligations and also to protect this vital area.

In the future, I do see arguments being raised to describe such areas as a 'global' area and am sympathetic to such arguments, even though they run counter to existing fundamental notions of territorial sovereignty.

2. UNFCCC (United Nations Framework Convention on Climate Change) and other Environmental treaties require individual participating countries to commit to reduce their greenhouse gas emissions. As Environmental Conservators, how far do you think treaties like this would help mitigate the impact of climate change and global warming in the future?

Multilateral treaties that address issues of global concern are, by their very nature, instruments of compromise. We want consensus among a large number of stakeholders (States), but the price we pay for this goal of inclusivity is the need to reach agreement on the terms included – ie on the specific rights and obligations that are granted/imposed by the treaty.

Some argue that this often results in a watered down or generalised instrument, described in some circles as incorporating the 'language of the lowest common denominator'. What's more, positive 'political will' is essential if the terms of such treaties are to be implemented in an effective way. In theory treaties can make a significant difference, but these other elements will impact on their effectiveness in actually promoting and achieving the ultimate underlying goals.

3. It is hypocritical for the developed countries to demand prioritisation of environmental conservation from the developing and under developing countries as industrialization would require utilisation and exploitation of the environment. How then can the obligation upon underdeveloped and accountability of the developed be balanced as collective cooperation is the demand of the realm?

International discussions on such important issues of global concern often involve exactly this issue. Questions of fairness/equity between the wealthier countries and those seeking to industrialise and develop often give rise to difficulties and ideological and geopolitical impasses. Somehow, we need to overcome this, but it is difficult. Various environmental governance principles have been developed to go some of the way to accommodate this – for example, the concept of 'common but differentiated responsibility' - but they themselves sometimes tend to exacerbate rather than lesson the perceptions of division between the 'haves' and the 'have-nots'.

4. Should we now start to see 'sovereignty as responsibility' in order to affix the liability on one hand and ensuring the obligation on the other with an ultimate aim to achieve global uniformity in the environmental protection schemes?

I perceive the concept of 'sovereignty' as fluid and constantly evolving. It was initially perceived as bestowing upon a State absolute jurisdiction and competence over all issues within its territories, but the development of international law and its broader reach into areas such as human rights, humanitarian law, environmental law etc. serves to reshape how sovereignty applies. States will, of course, continue to assert absolute jurisdiction and competence but I do think that the subtle remoulding of sovereignty over time will make States more responsible for impacts on the global environment over which they have had some control.

5. The accuracy of monitoring is an important consideration in determining whether and how each source should or could be included in an emissions trading system. Moreover, it is widely acknowledged that emissions trading should only take place in an environment of highly credible monitoring of both emissions and trading activity. According to you, what are the basic issues involved in monitoring greenhouse gas emissions.

This is as much a scientific issue as a legal one. Of course, the instruments can set targets/limits – as was the case in, for example, the Kyoto Protocol – but the problem remains as to how a 'reduction' of greenhouse gas emissions is measured and against what benchmark. For instance, States will claim that its decision to not log a certain area is a reduction in greenhouse gas emissions. Whilst greater forest management is indeed important, it is really not a methodology by which progress should be measured, since what is needed is a change to the way societies operate more widely. Scientific measurement of actual emissions from industrial operations etc. is necessary to really determine what is necessary.

6. Since environmental significance is of utmost importance in the past few decades, yet there are no severe sanctions imposed on violators due to the very nature of environmental law, do you suggest that a strong procedural framework is required to protect the environment?

The Kyoto Protocol system introduced a 'carrot and stick approach'. This was seen as a breakthrough and recognised the need for (financial) incentives to take action on environmental matters. Yet even that has not proven to be sufficient or effective, partially for the political issues raised above, but also because there were no strict sanctions incorporated into the system for violators. This is necessary but, of course, requires that States will themselves agree on a consensus basis to include harsh penalties that will, ultimately, be imposed on themselves.

7.There's a lack of space environment law, so, how can we proceed to solve the issue of Space Debris without breaching any nation's sovereignty (interfering with space object of nations) and have their cooperation at the same time?

Space debris and their cascading effects represent one of the greatest challenges for the long-term sustainability of space activities. The existing international instruments dealing with the issue can be characterised as 'soft law' at best. By implementing the guidelines contained in these soft law instruments via national or agency policies, policy-makers might, however, ultimately contribute to the formation of a due diligence-standard, if international practice is sufficiently wide-spread and representative. The main non-legally binding instruments are the IADC Space Debris Mitigation Guidelines and the Space Debris Mitigation Guidelines as adopted by the United Nations Committee on the Peaceful Uses of Outer Space()UNCOPUOS. More recently, in June 2019, the UNCOPUOS adopted a number of Long-Term Sustainability Guidelines, which will also be relevant to the issue of space debris mitigation.

While there are some widely-accepted and practical mitigation guidelines in place, as well as promising developments as regards remediation, each proposed solution brings with it other questions. Most significantly, these technological measures will never resolve the issue in the absence of responsible behaviour by all space actors. To add to the already complex technical challenges, as we debate the most effective space debris mitigation and remediation measures, many difficult geopolitical, policy and legal questions also arise. Who is going to pay for space debris removal? Whose responsibility is it? And, as some States will argue, if a State develops the capability to remove or deflect space debris, how can we be sure that the same technology will not be used to do the same to another country's 'live' satellites? Further, as more objects are sent into orbit, and we increase our ability also to return them to Earth for reuse – itself a potentially important mitigation measure - we will need an improved and, importantly, coordinated space, air, sea and ground traffic management regime. To remain sustainable in space, we must ultimately develop a unified traffic management system. And we will need it soon.

8. Today, NASA is expanding on the agency's relationship with private companies like SpaceX and other companies such as Blue Origin and Virgin Galactic are specializing in sub-orbital space tourism. So, considering all the upcoming and future projects of private as well as public space actors, how can we ensure the concept of sustainable development will not fade away in space

development due to lack of Space Environmental laws?

There needs to be many conversations at many levels – multilateral, bilateral, regional, and an among industry/private sector, civil society and academia – that allow for all views and expertise to be heard. From these multiple discussions, the relevant perspectives must be fed into an appropriate multilateral forum – in the case of space, this is the UNCOPUOS, so that inclusive, open and transparent discussions among all States can be conducted. Ultimately, the imperative is to reach a broad multilateral consensus-based understanding on how to move forward. Again, this will not be easy but it needs to be recognised that we have no choice but to find this path, since a 'business as usual' approach, and irresponsible behaviour by space actors, will inevitably lead to a 'tragedy of the commons' scenario in space. If this happens, then the whole of humanity suffers.

9.As we know many nations don't have national space legislation, but their space programmes are increasing at humongous rate, so what steps can the governments take in their domestic capacity to curb the rising issue of space debris?

National space legislation is very important for all States whose citizens are seeking to undertake space activities. It will cover many aspects of space activities and be the means by which countries implement into their national frameworks their international obligations viz-a-viz space that flow from the treaty provisions and customary international law. A part of this will be, at a minimum, the implementation into national law of the space environmental guidelines and best practices.

INTERVIEWS



"Even if there was a single organisation to control and regulate the matter of pinning of liability it still wouldn't have changed the liability pattern as international law still has to come up with the challenges of sovereignty and jurisdiction which cannot be overcome by an international organisation."

Dr. Stellina Jolly

Dr. Stellina Jolly is a Senior Assistant Professor at the Faculty of Legal Studies, South Asian University (SAU). A Fulbright Scholar with the University of San Francisco and a recipient of the International Visitors Leadership Program (IVLP). She is also a member of IUCN World Commission on Environmental Law and a resource person for the Ministry of Law, Research Project on Judicial Reforms.

1. There are certain quintessential elements of environment which fall under the direct control of a particular country, for instance Amazon Rainforest which are revered as the lungs of earth are directly under the control of Brazil. The basic problem here is the industrially motivated approach along with cattle grazing and ranching which is aiding to the 80% of the deforestation. The recent debacle of unprecedented forest fire in the rainforest was neither checked nor questioned by international community. It is pertinent to state that there is a clear void of a single international organization that establishes the rules of general application and works upon the area of pinning the liability. How to avoid such situations in future? How to preserve such spots from rampant destruction when the country itself terms them as domestic affairs?

"International environmental law is always revolving around trying to balance the concept of sovereignty which in other terms is known as permanent sovereignty over the natural resources. International law has tried to move from the absolute sovereignty principle to limited sovereignty and to try to bring in a mechanism of collaboration and cooperation between the nations. This challenge to balancing is further complicated by balancing of various economic interests and various stakeholders. This makes the balancing of state sovereignty and international obligations even more challenging. Even if there was a single organisation to control and regulate the matter, it would have acted as a coordinating mechanism to multiple conventions which do not have a synergy in their operation but this still wouldn't have changed the liability pattern as international law still has to come up with the challenges of sovereignty and jurisdiction which cannot be overcome by an international organisation. A lack of proper statutory framework and incompetent provisions followed by the jurisdictional challenges are some of the major drawbacks which could be overcome by understanding the triple interdependence of the environment, social and the economic factor integrating them into the policy making decisions of the government is what is required at the moment."

2. Environmental degradation and successive climate shocks caused due to wars are rarely a priority for the warring parties despite obligations under the International Humanitarian Law (IHL). The ICRC recently released the updated 2020 Guidelines on the Protection of the Natural Environment in Armed Conflict which brings together the existing IHL rules that provide specific protection to the natural environment and additionally recommend measures that parties may adopt. Would you like to give your opinion on this issue of the "Humanitarian Impact of Combined Conflict and Environmental Risks"?

"The natural environment has always been a silent causality in conflicts. Generally, anyone articulating the issue of environment starts with a defensive position as the crisis of war is regarded as a more pressing matter, and the effects on the environment a collateral damage. Nevertheless, this is a significant issue as the armed conflict poses a critical threat to the well-being of people occupying the region along with the health of the ecosystem. The IHL framework and the associated legal frameworks have scattered provisions that seek to limit the damage caused due to the armed conflict. The ICRC introduced the guidelines on the military manuals for the protection of the environment in times of war which codified all the existing rules and the same have been revised in the 2020 guidelines. The significant feature of these guidelines is that they address the issue in three ways, i.e. mechanisms before, during, and after the war. For instance, the warring parties may designate areas of national importance and agree not to attack them and that the environment must not be used as a reprisal mechanism of war. Additionally, these guidelines give recommendations that the states may follow, as evidenced by the humanitarian response to the Rohingya crisis. So, I would say that in terms of protection of the environment there is no dearth of law. However, in the entire operation of a conflict, the natural environment becomes the least prioritized area because everyone thinks that there are better areas that need to be looked into."

3. The EIA framework should be the backbone of environmental governance in a country. But in India, right from its inception, the EIA notification has been a rather weak and undemocratic link in the framework of environmental governance. How difficult is it for a country like India to come up with a robust policy which balances 'development' and 'environment' and protects biodiversity, maintaining the air and water quality and regulating human activity. Is the Draft EIA Notification 2020 in consonance with India's international obligations, being a party to the many treaties on environmental law? Will it prove to be a better version over the 2006 notification or is it true that the draft notification is there to further dilute several important environmental protection schemes?

"EIA is perhaps one of the most important and the only regulatory mechanism in the implementation of environmental protection. The ideas of sustainable development, precautionary principle, intergenerational equity, are all couched in a very vague language. They may vary from person to person. Amidst such vague principles, EIA is the actual regulatory mechanism where you can actually document the consequences of any project. In the Indian Context:

- 1.) EIA is conducted by project proponents so the independence and accountability becomes problematic
- 2.) The decentralisation and the federal relationship between the Centre and the state has been problematic
- 3.) Public consultation

From 2006, we can see that there have been successive notifications which have come up and promoted dilutions. The problem with the current EIA is 'ex post facto clearance' which means a project can secure environmental clearance even after the date of its starting. The Indian Judiciary has always looked at this great suspicion as it is against the very nature of environmental clearance.

the other problem is lack of public consultation. Under the International Environmental law there is no explicit right of environment as a human right. The international environmental law mechanism has provided for dividing the human rights into two parts: procedural and substantive where the procedural human rights have been incorporated the environmental law convention and one of the major procedural requirements is public participation. India is a party to the Rio Declaration which talks about the requirement of public consultation. The requirement to have an EIA is not only a domestic but international commitment and so is the commitment for public consultation.

Justice Dalveer Bhandari has said there is a lack of common parameter as far is EIA is concerned as different countries follow different standards. To remove this, conventions like the Espoo Convention and the ARGOS convention can provide a proper picture. India's dilution of public consultation is against the spirit of various International Environmental conventions to which India is a signatory. Solution may lie in the Judicial Activism. But this is not the ideal solution as the ideal solution should be that this requirement should be explicit in the legislative framework. Gram Sabhas have to be strengthened as they can play an important role in securing the public consultation. The requirement to have an EIA in the transboundary context is a customary international law as this might cause a problem if India in future faces disputes from its neighbouring countries. Countries should have a broader perspective to be able to mitigate any future challenges and frame their policies that way. Also, the civil societies can play a very positive role in forcing the government to structure a robust policy."

4. Despite the need for whistle-blowers in the environmental sector and the financial savings they can provide, several features of the environmental sector make being a whistle-blower challenging. It is said that most definitions of who is considered a "whistle-blower" cover only individuals who report on traditional types of misconduct. However, potential environmental whistle-blowers often encounter wrongdoing not covered by protective statutes, such as, the suppression of results of emissions analyses and the use of skewed methodologies or inferior data. In this context, is the framework for whistle-blowers sufficient or a new law is required?

"Whistle-blowers" have always been crucial, not only in terms of environment but also in issues involving public activity, whether it is exposing a corruption or human rights violation. In the Indian context, it's been an area which has always been neglected. Even though the Indian Government has passed a Whistle Blowers Protection Act, 2011, it does not have so much of context and deliberation in terms of activities involving Environment.

There are multiple dimensions when we think of a whistle-blower and its significance and what could be the legal mechanism for it. In this context of legal developments, India can learn from the United States, if it wants to come up with strong supportive system or mechanism for the protection of the whistle-blowers. The United States look at the issue of whistle-blowers in terms of environment in two ways. Firstly, in the provisions of all its Statutes, it provides that apart from implementing the provisions, its employees can act as a whistle-blower and the Statute provides protection to its employees against all types of retaliation. Secondly, it provides a system for public spirited citizens, who are aware of any kind of environmental degradations or any violations, where the action has not been taken, and then they can definitely highlight that issue. There have been Statutes which are passed in the United States, which allow public spirited person to be a whistle-blower.

So, the United States has these two mechanisms. One for the protection of employees and another is monetary and incentive mechanism and it is enough kind of protective mechanism for the whistle blowers. But sometimes, this mechanism is also not enough. The real challenge is in implementing the provisions".

INVESTMENT PROMOTION AND ENVIRONMENTAL PROTECTION- RECENT TRENDS IN BITS

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The increase in investment flows is one of the newest challenges in the pursuit of sustainable development. Generally, investors establish their operations in countries that have less stringent environmental regulations to reap maximum benefits from the investment. It has been estimated that a 1% increase in foreign direct investment contributes to a 0.04% increase in environmental pollution. In response to this challenge, countries have incorporated environmentrelated language into their Bilateral Investment Agreements(BITs) to balance thehost state's regulatorypower concerning its commitments to protect the environment with investment protection.

However, many existing BITs have been identified as the first generational BITs since they reflect mostly the demands of the capital-exporting countries in the developed world. They are not detailed in nature. One of the main criticisms against these first generational BITs is that they are drafted in the way of hampering the state's sovereign right to regulate the environment, national security, public health, employment and economic development.

With the realization of the fact that BITs are not harmles political declarations and they bite stat measures, countries like Venezuela, Bolivia, and South Africa have rendered to terminate their BITs. In contrast, other states like Canada, the United States, China, France, Norway, and the United Kingdom inclined to reframe the policy space in their BITs. These Second generational BITs preserve more regulatory autonomy and flexibility for host countries to adopt non-discriminatory measures having a bonafide intention for the general welfare. Such BITs have adopted the principle of sustainable development, among other things, providing an explicit reference to the protection of the environment to limit the discretionary power of

the arbitral tribunals. Part I of the Brundtland Commission Report of 1987 and Principle 4 of the Declaration RIO also recognize sustainable development as a way-out to reconcile the tension development and environment accordingly affirmed that environmental protection should be integrated into all development processes to achieve sustainable development. This approach has not only been followed by member states of the Organization for Economic Cooperation Development (OECD). Countries such as Ghana, India, Brazil, Azerbaijan, and Serbia have also followed the same approach. By now, more than 50 countries have revisited their BITs and model BITs.

According to a study done by the OECD in 2011, environment-related language has been used in BITs mainly in seven ways; i) general language in preambles of BITs, ii) reserving policy space for the regulation of environment in general, iii) reserving policy space for the environment regulation for the specific subject matter, iv) exceptional clause to indirect expropriation, V) none-lowering environmental standards to attract investments, vi) environmental matters and investor-state disputes and vii) general promotion of progress environmental protection and cooperation. Contracting parties have used one or multiple references to the environment in any of the ways mentioned above.

Among these seven ways, the most used expression on the environment in second-generation BITs is space reserving policy for regulating environment This is famously identified as the exception clause. It exempts certain transactions or people or situations from the applicability of the commitments in an investment agreement to protect the interests of the host state. The effectiveness of this clause has been further strengthened in some BITs specifying the nexus between the state measure and the policy objective. For instance, the phrase 'as it considers appropriate to' in Article 9 of Rwanda-Arab BIT is having a self-judging nature and is not as strict as the phrase 'as it considers.'

Ilt gives policy space for the host state to decide the limitations and legitimizes its state measures which purpose to regulate the environment.

Moreover, identifying the environment as exception to indirect expropriation is also a wellknown way to reduce the tension between regulatory and promotion of the investment. power Nonetheless, when the text of the BIT does not differentiate non-compensable regulation compensable expropriation, the tribunals have adopted three tests namely, the sole effect test, police power test, and proportionality test, to determine the case. Famous arbitral awards such as Metalclad v Mexico, Tecmed v Mexico and Santa Elena v Costa Rica are examples of the heavy burden placed on the government to ensure legal certainty of these tests. Hence, to avoid these difficulties, the second generation BITs have exempted bona fide and non-discriminatory state measures that purpose to ensure environmental protection from the indirect expropriation(Ex-Article 6.8 of Argentina-Arab BIT, Annex B10 of Canada-Mongolia BIT and Article 5.5 of India's Model BIT). Further, the US Model, Canada-Mongolia BIT, and Japan-Argentina BIT have provided specific limitations to the indirect expropriation stipulating the proper criteria viz. economic impact of the state measure, the intervention of the reasonable expectations of the investors, and character of the state action which requires a case by case, factbased inquiry.

Concerning investor-state dispute settlement (ISDS) mechanism, some BITs (such as Brazil-Guyana BIT and the US Model BIT)have excluded the application environmental concerns from the dispute settlement mechanism to preserve the policy space of the host state. Further, Article 12.5 of the US Model BIT has introduced the exhaustion of local remedies as a precondition to ISDS.It provides space for both parties to have a compromise. Moreover, the Model BIT of Canada and Model BIT of USA have recognized the legal validity of amicus curiae briefs in their BITs.In Biwater v Tanzania the tribunal accepted the significance of the amici's contribution as it affirmed public interest in the investor-state dispute, convincing the tribunal about sustainable development, right to water and international

corporate social responsibility. Significantly, India's Model BIT provides direction to the tribunal to consider the damage caused to the environment by the investor as a factor to mitigate the compensation when monetary damages are awarded.

In addition to these seven ways, some of the recent BITs have identified the voluntary responsibility of the parties to internalize the standards of corporate social responsibility and OECD Guidelines for Multinational Enterprises. The Brazil-Guyana BIT is progressive in this regard as matters relating to corporate social responsibility have been excluded from arbitration. Significantly, the Morocco-Nigeria BIT has provided standardization for the companies in areas of resource exploitation and high-risk industrial enterprises that they should maintain their certification to ISO 14001 or an equivalent environmental management standard.

In conclusion, it can be said that possible conflicts between environmental regulation and investment promotion can be considerably minimized through explicit reference to the environment in BITs. Since the investment treaty is the primary source in an investment dispute, if the treaty provisions are precisely drafted concerning the rights of the host state and investors, the tribunal will be able to strike an appropriate balance between the two. Linking environmental concerns explicitly with the expropriation clause and general exception clause would generate more latitude for host states to legitimize their bona fide state measures without violating the treaty provision. The US Model BIT, Morocco-Nigeria BIT and Brazil-Guyana BIT are more progressive in this regard. However, such expression would not unilaterally enable the state to legitimize their arbitral or political decision as the state bears the burden of proof of these clauses.

SAFEGUARDING NATURE THROUGH RIGHTS OF NATURE

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INTRODUCTION

The environment has always been helping humankind for its existence on the planet. Without the environment, there is no life, and that provides humans with the indispensable thrust to safeguard the elements of the environment. Humans and the environment are meant to work together for the survival of both, but unfortunately, humans owing to their greed have become the biggest threat to it. Nature has limited resources which are being exploited by humans for material consideration. Significant and environment-oriented steps if not taken within the limited time, it may lead to disastrous and devastating effects on the planet and that perhaps maybe the reason which propelled the global communities to give a set of rights to nature so that both humans and nature can co-exist simultaneously.

'Rights of Nature' recognizes nature and its species just not as resources for humans, but as a living creature with a set of rights of their own. Nature needs to be considered as a right bearing entity and not as an object controlled by humans. Rights of nature are different from old conventional ways of protecting the environment. It signifies that nature has some inherent rights which are neither dependent on any state nor individual; rather it is inherently possessed just like human rights, which, as per UDHR is not given by the state rather a human possesses it by being human only.

RIGHTS OF NATURE ACROSS THE WORLD

'Rights of Nature' aims to treat the earth as a living creature and everything associated with it like forests, mountains, rivers and oceans as its commodity. Dr Joanna Macy has given three significant dimensions of "rights of nature" intending to bring social change.

Putting a stop to the destruction of the environment is the first dimension while second and third being to find alternatives and creation of consciousness amongst people respectively.[1]

Many countries across the world have taken significant steps to recognize the rights of nature and Ecuador is one of those countries which, through its constitution, has acknowledged those rights. Chapter VII of Ecuador's Constitution deals with 'Rights for Nature. Bolivia after Ecuador has also recognized its importance. In Asian Pacific region, a paradigm shift can also be seen as countries like Nepal and India through specific legislation, and judicial decisions tried awakening the consciousness of the people towards the importance of recognizing nature's right. Indian courts have attempted to personhood to Indian rivers to be a juristic person so that normal human beings can also be its guardian and can take judicial measures to safeguard it. The Apex Court has not accepted Salim v. St. of Uttarakhand. PIL No.124/2014,though the Bangladesh High Court has done the same by granting legal personality to River Turang. New Zealand, very lately also recognized the rights of mountains and rivers through legislation which came into reality by the efforts of local tribal people. Whanganui River in New Zealand has also been granted rights through drafted legislation called Whanganui River Settlement Bill on March 15 2017.

WHAT MORE CAN BE DONE?

People across the world have mixed feelings about the success rate of this initiative. There are places where rights of nature has been encouraged places whereas in other people are still contemplating to enforce it. In Ecuador, Provincial Court has considered Vilcabamba River a legal entity and ruled 'it has a right to flow and be healthy'. In the United States of America, the first environment right based legislation was passed recognizing Lake Erie to be a legal entity empowered enough to fight for itself.

Against this law, petitions have been filed by business firms stating the city has no such authority to adopt this kind of law. This has created an apprehension in the minds of environmentalists that

how normal citizens who are now being the guardian of the elements of the environment will fight against wealthy and resourceful business firms who can invest hugely in defending a lawsuit. Irrespective of all, 'Rights of Nature' has given this world a new transformative approach through which environmental interests have got its voice. In addition to this, it needs more specific amendments as environmental battles initially being fought on a case to case basis are based on the problems of a specific area.

Now, this approach requires modification as an environmental threat in one place is a threat to the world. All International Community needs to come together to bring an internationally binding instrument to fight this battle. Like International Court of Justice and International Criminal Court, an initiative needs to be taken to establish an International Environmental Tribunal. More specific problems which are general to most of the nations are needed to be taken up like global warming, loss of biodiversity, carbon emission, etc., then only rights of nature can be successful otherwise it will limit itself to some of the areas. Pan popularity will be just an imaginary goal.

CONCLUSION

Nature is having a limited resource to impart and how it needs to be used for the coming generation is highly dependent on the present. Greed has no limit, and that is making this environment unliveable by each passing day. Recognizing nature's right has been one great initiative which has given the power to a normal citizen of a country to approach the court if the rights of nature are being violated. Now normal people are more powerful than before as they do not have to prove as to the violation of their rights rather a violation of nature's right is sufficient. More relaxation in the procedural condition is required to bring more social changes relating to the environment. Countries across the world have shown political and social inertia for bringing positive environmental changes which just now require a collective negotiation for important matters. Time is not far when the normal consciousness of the world will not just recognize but will also respect the rights of nature.

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FORMULATION OF INDIA'S NATIONAL CHEMICAL POLICY: A CLOSE REALITY

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INTRODUCTION

India's chemical industry is an important player in the global trade of chemicals, plastics, and allied products. With a high diversification, it covers around seventy thousand manufacturing units and is the 6th largest producer in the world and the third-largest in Asia.[1] Now it only makes sense, with such a high rate of development and growth, there should be a national chemical plan to regulate India's chemical industry..

NATIONAL CHEMICAL POLICY

The plan has been pending for quite some time since 2008. A draft was formulated and published in 2014, but it never saw the light of being enacted. Although this year it seems possible that a final draft may be finalized and the goal of having a uniform national chemical policy may become a reality.[2] The country on 16 March 2020 released the 4 th draft Chemicals (Management and Safety) Rules to selected groupsThis draft is believed to be the final draft, although the same thing was perceived for the third draft.[3] The draft refers to the proposed policy framework established by the National Coordination

Committee; a committee set up by the Ministry of Environment. Forestry and Climate Change (MoEF & Dec.), which recommended the establishment of a chemical inventory and registration scheme. It also outlines proposals for the implementation of the Globally Harmonized Chemical Classification and Labelling System (GHS). [4]

The Committee also recommended phasing out chemicals in the short and long term, based on their risk to human health and the environment. Based on the recommendations of the Committee, a mechanism has been laid down by the draft, and this draft applies to all substances, substances in mixtures and intermediates that are manufactured, imported, placed in the Indian Territory, or intended to be placed there.[5]

According to the draft, India will set up three committees which include a Steering Committee, a Scientific Committee, and a Committee on Risk Assessment. The Steering Committee shall do the supervision of technical and administrative matters relating to the Rules of Procedure, approving budgets, and supervising the Division. The Scientific Committee and Risk Assessment Committee, on the other hand, will comprise various experts concerning toxicology, environmental, packaging, and labelling. A Chemical Regulatory Division will also be established, which will have similar roles and functions of the European Chemicals Agency (ECHA).[6]

The Division would be responsible for the evaluation of notification and registrations provided by Industries and provide recommendations to the Committees. A time period has been laid down for the initial commencement of the notification which would begin one year from the Rules coming into force and would conclude 180 days from commencement. During this period, the industry is required to notify all existing substances imported or exported at or above one metric ton per year. All new substances exported or imported by industry must be notified at least 90 days before the date they are placed in Indian Territory.[7]

Section V talks about the details which are required while bringing in a notification by an industry. The information is quite similar to the requirements laid down in the pre-registration phase of the 2019 amended (K-REACH) policy of South Korea. The K-REACH policy is the chemical regulatory legislation of South Korea. Like India, it too has similarities with the EU REACH Regulation. Like the policy passed in South Korea, the policy of India to include a powerful demonstration of the identity, use, and hazard classification of the substance. As part of the notification, a safety data sheet (SDS) is also expected to be attached by the industry.India proposes that the classification, labelling, and SDS be consistent with the Globally Harmonized System of Classification and Labelling of Chemicals of UN Revision 8.Thus, the Chemical Regulatory Division shall review the notifications and may determine whether the substance notified by the industry is considered to be of high priority and to be subject to registration.[8]

The substances which have been listed in Schedule [2] of the draft have been designated a Priority Substances. Importers are required to notify concerned authorities within 15 days of importing.In Chapter V of the Draft Regulations, additional labelling and packaging criteria are set out for Schedule II substances. Seven hundred fifty substances are currently classified as a priority in Schedule II. Concerning foreign entities, the draft has provided an option for foreign organizations to use an Approved Representative to inform and register. Similar to the role of a sole representative in other regions, the Approved Representative acts "on behalf of the international manufacturer to ensure that these rules are complied with and is responsible for discharging all obligations under these Rules."[9]

CONCLUSION

There are around 15 Acts and 19 Rules that are currently being followed concerning chemical management in India. The vast number of laws and rules adds more complexity and confusion; thus, the enactment of a national policy on chemical management is necessary.

India's chemical sector's safety remains woefully inadequate. The country has had a long history of chemical mismanagement and accidents. The most dreadful being the Bhopal Gas Tragedy, where thousands were killed, and over half a million survivors suffered from respiratory problems, irritation in the eye, and blindness when over 40 tonnes of toxic methyl isocyanate (MIC) gas leaked from an insecticide plant. The investigation revealed that the leakage occurred due to substandard safety procedures at the understaffed plant.[10]

But it didn't end here, almost four decades after the accident; incidents of chemical disasters are still prevalent in India. Recent being the Visakhapatnam gas leak. The laws which were passed by the government after the Bhopal gas tragedy has in no way brought in a change.

Chemical mismanagement and safety violations are still prevalent in the country. With the chemical policy, India includes elements from frameworks policies around the world, including REACH in the EU and K-REACH in Korea. It has taken elements from global chemical policies and has framed its mechanism. Although the framework will create some confusion and disagreement among manufacturers, importers. and downstream users initially, it will allow companies that have been impacted an opportunity to strategically consider and plan how substances are introduced into India, as there are fees and distinctive data elements.

The step, in the end, is a welcome step for bringing safe chemical usage in the country and it seems that by the end of this year or somewhere in the next year, the draft will be formed in the form of legislation and be tabled for parliamentary approval. It is visible that the current laws which have been enacted have failed. The lives lost by such accidents are evidence of that. Thus, the establishment of umbrella legislation that aims to establish an inventory of all chemicals in a trade or imposes a requirement on the chemical producer to provide the central agency with hazard data is a key step in strengthening environmental law in India.

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STUBBLE BURNING: LIABILITY OF FARMERS VERSUS THE STATE

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Of late, the pollution level in Delhi and the bordering states especially the National Capital Region (NCT) has usurped the pollution level in such concentration as may be injurious to normal living and health conditions. On 6 November 2017, the Air Quality Index (AQI) of theNCT rose to as much as 999 as opposed to AQI value of 100 or below which represents a good quality.[1] In the light of this, a public health emergency was declared in the state. In addition to other factors, the misfortune of this kind was allegedly said to be caused majorly by the stubble burning incidents in various parts of India, specifically in the states of Punjab, Haryana and parts of Uttar Pradesh and Rajasthan. Such a practice not only causes widespread pollution and releases toxic gases into the environment, but also deteriorates the fertility of the land. This paper attempts to understand the problem and analyse the same to find an appropriate authority to be made liable and ultimately devise a solution for the same.

Various steps have been undertaken by the Judiciary at various levels from National Green Tribunal (NGT), High Courts and well as the Supreme Court of India. The NGT has time and again passed various orders in this regard including the formulation of National Policy for Management of Crop Residues, 2014. Further, the Delhi High Court in Court on its own motion v. Union of India[2] took suo moto cognizance of the matter and passed a judgement banning the practice of stubble burning across the country. In a similar instance, the Apex Court, in the case of M.C. Mehta v. Union of India [3] has, inter alias, given directions to adopt satellite based monitoring system[4] to oversee the areas that are most responsible for the pollution to ensure that requisite measures may be undertaken to rectify the same.

CONTENTION OF THE FARMERS

The farmers residing in the states of Punjab, Haryana, and Rajasthan etc. have been made accused by the respective state governments. However, what is imperative here is a study into the causes of such actions by the farmers and why despite express NGT orders, the farmers continue to undertake such practices.

The present day usage of mechanised farming, burning the stubble is the cheapest, quickest and easiest way to get rid of the waste. The residue is burnt so as to ensure its quick disposal involving minimum cost. Further, a quick disposal is imperative as the farmers get approximately 15 days between the paddy harvest and the time to start the sowing for Kharif season. Any delay shall render huge loses to the farmers. Also, the farmers cannot resort to high quality machines that are, even though very effective, are unaffordable to them.[5] Therefore, they resort to such practices.

IS THE STATE LIABLE?

However, it is to be noted the failed responsibility on the part of the State governments to take measures to protect the environment. It is the state's responsibility to balance the social needs of the public at large and economic needs of the farmers. The state has to devise a plan to find equilibrium between the two. However, currently, an effective legislation and measures to counter effects of stubble burning are thoroughly lacking which the states need to ultimately ensure rather than passing the buck.[6]

Furthermore, according to the Public Trust doctrine, there are certain natural resources that are of so much significance to the human kind that they cannot be made subject to private ownership. These resources, including healthy and clean air, should be made equally available to all. This doctrine imposes a responsibility on the state to protect these resources so as to ensure their optimum enjoyment by the public. In case of failure, the state shall be held accountable for the same.

The state is also under a positive obligation placed on the executive by the Constitution 7 which explicitly states that the "State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country". Also, the Supreme Court, while citing "precautionary principle", has held that the Government has a responsibility to prevent environmental degradation.

COMPARATIVE ANALYSIS

In view of the above, a balance has to be necessarily drawn between development and preservation. The problem of stubble burning has now become more of a self-created problem due to unaccountability of the state governments.

If we analyze, the issue of stubble burning was also rampant in the United Kingdom and requisite steps had to be undertaken by the state in order to rectify the situation. Owing to that, "Burning of straw and stubble" was made an offence under Section 152 of the Environment Protection Act, 1990 of the UK legislation. This section states that the appropriate minister is empowered to impose regulations to prohibit or restrict the burning of crop residues on agricultural land by persons engaged in agriculture. Any violation of shall be punishable with fine up to a maximum amount of £5,000.[8] The legislation also provided certain guidelines to ensure flexibility. For instance, in Northern Ireland, in absence of any alternative to stubble burning, a farmer can practice the same by getting registered for an exemption with the Northern Ireland Environment Agency (NIEA). On those lines, the farmer shall have to follow the Department of Agriculture and Rural Development (DARD) guidelines which inter alias, include a blanket ban on the emission of "dark smoke".[9]

The farmers in UK have similar obligations under the Clean Air Act, 1968 and Health and Safety at Work Act, 1974. National Farmers Union of Scotland in consultation with the Scottish Executive Environment and Rural Affairs Department has also devised a comprehensive "Voluntary Straw and Stubble Burning Code" that enlists vital precautions and broad regulations in this regard.[10]

The UK laws have a comprehensive and rigid yet flexible set of legislations with respect to stubble burning. With such a set of policies and an early legislation, the country has managed to curb the issue quite effectively.

India currently lacks a comprehensive legislation aiming at curbing the problem of stubble burning like the UK. However, owing to the sanctions imposed on the state governments by the Judiciary, various positive steps have indeed been undertaken by the states in this regard. The results of the same have become quite evident in the recent years. The Economic Survey 2019-20 has stated that the stubble burning incidents in the states of Punjab, Haryana and UP have substantially decreased since the past years and continues to do so.[11] These depletions, however substantial, do not suffice to curtail the issue its entirety and in the Indian scenario, a more thorough and methodical approach is required to be adopted.

SOLUTION TO THE PROBLEM

To rectify the situation, first and foremost, there should be proper implementation of the policies that are formulated by the executive or the guidelines given by the judicial bodies to alleviate the problem. For instance, the states were directed by the courts to provide the farmers with "Happy Seeders" which are much faster and cause lesser environmental degradation. Even though the same has been done in certain states, it is not sufficient. In the state of Punjab, roughly a total of 50,000 of such machines are required to cover the total land area. However, merely 24,000 have actually been provided to the farmers. 12 Essentially, there is a need for regular checks and requisite punishments in case of failure to abide by the directions of the central and state governments.

Secondly, awareness programs should be organised in various states to make the farmers aware of the various ill-effects of this kind of practice.

Thirdly, subsidies should be provided to the farmers to enable them to use scientific methods of farming and also to cover up for the loss that is bound to be incurred in case such a practice is stopped.

Fourthly, "Crop Residue Markets" that aim at purchase of stubble and other residue for industrial purposes should be promoted.

Finally, if the problem still remains unsolved, penal and compensatory provisions should be imposed on those who are non-compliant.

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ANALYSIS OF ENVIRONMENT ASSESSMENT IMPACT, 2020: DEVELOPMENT OVER ENVIRONMENT?

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In order to reestablish the effect of environmental laws in India, the Ministry of Environment, Forest and Climate Change (MoEFCC) has put up the draft Environment Impact Assessment Notification 2020 for public comments, as a replacement of the 2006 version, which falls under the Environment (Protection) Act, 1986.

The draft has faced major criticism various sectors including environmentalists, activists and the general public, urging the MoEFCC to withdraw the current proposal, which is likely to affect and do more harm than good to the environment in exchange of the social costs of developmental projects, due to the leeway and freehand given to the government authorities under the EIA, 2020. This brief will succinctly highlight and critically analyze the key changes in the EIA, 2020.

KEY AMENDMENTS: CRITICAL ANALYSIS

- Removal of B2 of industrial category development from environmental oversight: Under Category B2, list of projects like coal and non-coal mineral, energy projects, solar thermal power projects, solar parks, have been exempted under the new EIA draft 2020. Therefore, all categories of B2 activity will be carried out without any oversight. This exemption gives a freehand to the major industrial players to carry out their project(s) without being concerned about the environment and therefore, cannot be charged for any violations under the Environment (Protection) Act, 1986.
- Clearance post-facto: Any project that violates the Environment (Protection) Act, 1986 (EPA) can also be granted clearance if such projects agree with the new draft.

- This means that all those activities which were considered to be harmful to the environment will be treated liberally as a policy decision under the new notification and shall be given clearances.
- Construction Projects up to 150,000 sq m are exempted from the assessment: Earlier construction projects of up to 20,000 sq. m or above has been reduced to 150,000 sq m, which will be free from assessment under the new notification. Therefore, reducing the limit to give environment clearances will regress and dilute the environmental conditions rather than doing any good.
- Government's Discretionary Power for Approval: The government has been given a special power to decide the "strategic" tag for projects and granting clearances to certain projects without having to explain reasons. Therefore, the government has been given a blanket authority to approve the project, which it deems fit while limiting public engagement to protect the environment. Hence, this curtails the public complaint redressal against such development schemes.
- Public hearing reduced to 20 days from 30 days: The EIA, 2006 mandated prior public consultations within a period of 30 days for any project before the commencement of operations, which has now been reduced to 20 days. The reduction in timeline for public consultation restricts the rights of environmentalists and interested stakeholders to put forth their suggestions. Hence. restricting public participation by reducing the timeline by the government is an unnecessary move. This also goes against the Supreme Court decision in the Centre for Social Justice v. Union of India (2000), which insisted at least 30 days prior to the date of the public hearing.

CONCLUSION

In view of the above changes, it can be analyzed that the new policy is against public interest as well as the environment. Various environmentalists have also criticized the EIA, 2020 draft as "anti-environment" and "pro-industries".

It gives leeway to the industrialists for expansion and development of certain projects on the pretext of ease of doing a business project, started by the government. The draft has completely shackled the bedrock of 'precautionary principle', which forms the part India's environmental regime. Therefore, the bolstering of political and bureaucratic power given to the government abates the purpose of environment protection under the new EIA notification.

Hence, the above analysis presents the problem under the new EIA notification, which dilutes rather than testifying an effort to protect the environment and the health of the general public over governmental and industrial interest.

The new draft can be accessed at: http://environmentclearance.nic.in/writereaddata/Draft t EIA 2020.pdf

'COST OF DEVELOPMENT': CHAR DHAM PROJECT

Anant Chaudhary, 4th Year, MNLU, Aurangabad Narendra Singh Jadon, 4th Year, MNLU, Aurangabad

All-weather road project or Char Dham project is an 889 Km road widening project to four Hindu ilgrimage sites, Gangotri and Yamunotri, near the source of the rivers, and the temple towns of Badrinath and Kedarnath in the Himalayan region which has an estimated monetary cost of 12,000 crores. PM Narendra Modi inaugurated this in the year 2016 where he talked about the Uttarakhand tragedy of the year 2013 but didn't talk about the reasons behind it. One of the reason was over construction in that region, and sadly we haven't learned anything from that tragedy and has invited another one by going extra and causing irreversible changes in ecology. In the next few lines, we will look at how this project can cost us more than just money.

This project is in the limelight once again after Supreme Court asked Central government to not to widen road over 5.5m and follow 2018 circular which is against building wider road cutting against Himalayan slopes. Last year Supreme Court has also formed a high powered committee headed by noted environmentalist Mr Ravi Chopra. The committee is heavily divided with most of the government appointed persons going in favour of wider roads while heading Ravi Chopra and few others against it. Chopra argued that the current design would lead to a massive loss of green cover and landslides.

What report by the committee says?

-This report describes this region as geographically fragile and seismically active. This project has already engulfed more than 600 acres of forest land and 47,000 trees. This has also created hindrance in the route of springs and streams.

Mountains are being cut vertically making it more prone to landslides. Debris dumped in the river has destroyed the habitat of many fish species.

The report also states that the Project authorities have adopted a high-risk approach to road widening, So this project has an overall impact on the whole Himalayan ecosystem not just on one thing.

The issue with the wider roads-Himalayan mountains is not like other mountains. These are young folded mountains which are still growing. They already have many landslides zones, and

this carving out of mountains for wider roads has activated many other landslide zones in the area. Landslides often result in injuries and loss of lives. Recently three people were killed in this landslide mishap. According to Indian road congress, the recommended road width for a double lane highway should not be more than 8.80m, and here in this project, the width is about 12 m for which 24m carving is required. This is also against the International specification followed by Euro codes, AASHTO, Australian codes, British Standards etc.

Evading Environment impact assessment (EIA) and other acts: The government has played smart here to bypass Environment impact assessment. After EIA, it is in the hand of environmental ministry to give clearance or not. Any project over 100 Km requires EIA and to avoid this 889 km long project was divided into 50+ civil works which were less than 100 km each hence easily bypassing EIA. Such conduct by the government raises a serious question on their intention. This project has also flouted many wildlife and forest laws. Four projects fall within the area of the eco-sensitive zone, and this information was hidden to not to take permission from wildlife board.

Moreover, work was going on in many projects even after their clearance term was expired and in some instances, trees were cut before the permission was granted. In a few projects, old forest clearance was used which had no relation with this. This illegality and jumping off rules continued even after the high powered committee was formed. There was no fear and hesitation while doing all these things. Officials of road ministry ignored many requests from the committee. This wilful non-compliance makes this project more dubious and also shows the attitude of our officials toward the environment.

The Supreme Court is looking at this issue, but they need to be stricter as there are many flaws, and this disturbs the whole Himalayan ecology. The government has turned completely deaf on the concerns raised by environmentalist and another person. The building of roads and other construction activities are important for a nation, but the 'cost' we are paying for this is not affordable. With this, we can say that the dream project of our Prime Minister is a tragedy in the making and urgent attention is required in this matter before it's too late to rectify.

FARMER ACTS 2020: THE AGRICULTURAL CONUNDRUM

Aastha Chahal, 4th Year, MNLU, Aurangabad

Among other things, 2020 has also been a witness to some of, as it is being termed the 21st Century reforms in the Agriculture sector. The ambitious initiative of the ruling government has taken a somewhat an ugly turn, as the farmers in North India are protesting against those bills viz The Farmers Produce Trade and Commerce (Promotion and The Facilitation) Ordinance, 2020; Essential Commodities (Amendment) Ordinance, 2020 and Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Ordinance, 2020. These bills were signed by the President of India on 27th September 2020, amid unprecedented drama in the Parliament.

The Farmers Produce Trade and Commerce (Promotion and Facilitation) Act, 2020 replaces the Ordinance which was promulgated in June 2020. The objective of this act is to allow barrier-free trade of farmers' produce outside the physical premises of the markets notified under the various state Agricultural Produce Marketing Committee laws (APMC Acts). APMCs provide farmers with the platform to sell their products and collect market fees etc. for it. Intra-state trade falls under the State List, and

Intra-state trade falls under the State List, and Interstate trade falls under the Union list. That is why different states have different APMC Acts, and the marketing committees are set up according to the laws prevalent in the respective states.

These APMCs have 'mandis' where the farmers sell their produce, but this act aims at expanding the farmer's choice. In simple terms, the farmer has a choice to sell his produce wherever he is getting a better deal, whether that be a private buyer or at an APMC regulated mandi. This act prohibits the State Governments and APMCs from levying any market fee, cess, or any other charge on the trade of scheduled farmers' produce outside the APMC notified markets, as per Section 6 of the act. Section 5 of the Act has also provided for setting up of eto to facilitate direct buying and selling of farmers' produce, thus guaranteeing a hassle-free sale. The following entities can establish and operate such platforms: (i) companies, partnership firms, or societies, having a PAN card under the Income Tax Act, 1961, or any other document notified by the central government, (ii) FPOs, and (iii) agricultural cooperative societies.

The second act being The Essential Commodities (Amendment)Act, 2020, amends the Essential Commodities Act, 1955. The amendment act seeks to increase competition in the agriculture sector and enhance farmers' income. It aims to liberalise the regulatory system while protecting the interests of consumers. Earlier, the Central Government had the power to regulate or prohibit the production, supply, distribution, trade and commerce of certain essential commodities whenever it felt like. However, the amendment act provides that the Central Government can regulate the supply of certain food items only under extraordinary circumstances like i) war, (ii) famine, (iii) extraordinary price rise and (iv) natural calamity of grave nature. It also talks about the imposition of a stock limit on certain specified items that must be based on price rise. However, the provisions of the act regarding the regulation of food items and the imposition of stock limits will not apply to any government order relating to the Public Distribution System or the Targeted **Public** Distribution System.

The (Empowerment and Farmers Protection) Agreement on Price Assurance and Farm Services Act, 2020 provides a framework for the protection and empowerment of farmers concerning the sale and purchase of farm products. The provisions of this act will override all state APMC laws. To facilitate farmers in selling the farm produce to sponsors, this act shall provide for a Farming Agreement. In this way, the farmers can sign an agreement with the sponsors before the production or rearing of any farm produce and agree on what kind of products to be sown by the farmer. The agreement can provide for the mutually agreed terms and conditions regarding the supply and other standards of the farm produce. The act also provides for the period of the agreement, pricing of farming produce and delivery of the product as well.

The common objective that these three acts aim to achieve is to liberalise the farm markets so that the system can be made more efficient and provide the farmers with better price realisation. The majority population in India is engaged in the Agriculture Sector, so it becomes rather relevant in the present time to make farming a more remunerative enterprise. However, protests all over India. especially in Northern India by the farmers are showing a different picture altogether. The protesters are of the view that by enacting these laws, the government wants to get away from its role of providing Minimum Support Prices (MSPs) to the farmers. MSPs work only in APMC regulated mandis and not in private deals. Bargaining with big corporates for fair prices is another problem that farmers might face.

The purpose of making farming a remunerative enterprise can be achieved only if the farmers have full information about these acts and the government makes these laws applicable in their true sense and nature.

GREENWAY FOR POULTRY FARMS?

Rohan Kapoor, 4th Year, MNLU, Aurangabad

The National Green Tribunal has ordered the Central Pollution Control Board to revisit its guidelines classifying poultry[1] farms with short of one lakh birds in the "green category" and absolving their regulation under the Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 and the Environmental Protection Act, 1986. The Tribunal said sustainable development is an aspect of the right to life and the state authorities are under obligation to secure nature according to practical advancement ideas.

"Responsibilities of the states to the environment are by Public Trust Doctrine. The Water Act, the Air Act, and the Environment (Protection) Act have been enacted in the wake of international conventions and override all other legislations." The National Green Tribunal (NGT), Delhi stated that the operation of poultry farms has the potential to cause harm to the environment which needs to be regulated.

It noticed the submission of the National Environmental Engineering Research Institute (NEERI) that poultry production is related with a variety of environmental pollutants, including oxygendemanding substance, ammonia, solids, besides it attracts flies, rodents, canines and different bugs that create local nuisances and carries diseases.

The Case has dealt with provisions such as Section 21 of the Air (Prevention and Control of Pollution) Act, 1981[2] (Air Act, 1981) and Section 25 of the Water (Prevention and Control of Pollution) Act, 1974[3] (Water Act, 1974).

In that case, it dealt with compliance of environmental norms by dairies. The Tribunal directed the DPCC to perform its responsibility under the Water Act, 1974 and the Air Act, 1981 of enforcing environmental norms against the dairies, rejecting the plea that there is a provision in the Municipal laws to address the issue.

The plea claimed that poultry farms caused extensive pollution in the encompassing areas as they have a great number of birds in concentrated confinement, resulting in enormous aggregation of waste. This gigantic quantum of waste is disposed of scientifically. The poultries affect the environment and the living of the individuals who encompass the farm. Pests which are attracted to the farms make it difficult for the people living in the vicinity, it said. "To keep thousands of birds alive in such intensive confinement and unclean surroundings, it becomes important to administer non-therapeutic antibiotics regularly. The administration of these antibiotics adversely affects the health of those who live around the farms and those who consume the birds or eggs," the plea said.

The applicant has raised concerns concerning the environmental impact of the intensive battery confines in poultry farms where a large number of birds are kept to an exceptionally little space (each bird has an area less than A4 sheet). It submitted that the waste generated out of such farms is additionally a source of odour, pests and insects in the close-by zones which hamper the lifestyle of communities situated around such farms.

The candidate fought that the best way to guarantee tidiness is to receive clean enclosure free strategies for cultivating and presented that the current unhygienic states of poultry ranches call for clear quideline by the PCBs.

Then, the Respondents contended that the utilization of antibiotics is an issue under the purview of Animal Husbandry and the Drug Control and Food Safety Departments.

They also claimed that the poultry farms are established far away from the residential areas and, thus, residents are not affected by the activities of the poultry farms. Such activities help the rural areas by providing jobs and a source of livelihood. Eggs and chickens provide a cheap source of protein.

The Court in the wake of considering the contentions by the appealing party and respondents permitted the application. It directed the CPCB to revisit the guidelines for categorizing the poultry farms as green category and exempting their regulation under the Air Act, Water Act and the EP Act.

The CPCB may give new appropriate orders within three months, and in if no further order is issued, all the State PCBs/PCCs will require the implementation of consent mechanism under the above Acts after 01.01.2021 for all poultry farms over 5000 birds in a similar manner as is being accomplished for farms having more than one lac birds. Till at that point, the State PCB/PCCs may carefully implement the environmental norms and take appropriate remedial action against any violation of water, air and soil standards statutorily laid down.



[1] *Gauri Maulekhi v. Union of India and Ors*, National Green Tribunal, Principal Bench, New Delhi, Original Application No. 486 Of 2014 And Miscellaneous Application No. 800 Of 2014 |04-05-2016

[2] Restrictions on use of certain industrial plants.

[3] Restrictions on new outlets and new discharges

TECHEMERGE RESILIENCE INDIA CHALLENGE: INDIA'S BOLD TECH SOLUTIONS AGAINST CLIMATE CHANGE AND DISASTERS

Anuj Agarwal, 4th Year, MNLU, Aurangabad

INTRODUCTION

This year has been a roller-coaster ride for all of us, had it been the ongoing COVID -19 pandemic where frontline workers are countering the battle against SARS CoV-2 or disaster agencies tackling the recent dual cyclones Amphan and Nisarga, has jolted India to a greater extent and putting disaster agencies and healthcare system on a test. Still, a positive note due to the sudden halt in the lifecycle, nature has replenished itself or rather say healed form the scares that humanity has given in the name of development and questioned us what is more important.

Due to this pandemic, we realized that technological innovation in different sectors is need of the hour, as what once immensurable problems are now on a tough fight. This need for technological innovation is one of the major agendas of global agencies and national. One such road which swarms in key advancements to address the critical needs of the innovations is "TechEmerge Resilience India Challenge."

This challenge is flagged off under the aegis of the World Bank. In collaboration with the Government of India's National Disaster Management Authority and CES, this challenge allows innovators to come up with unique ideas to problems like disaster preparedness, response, and resilience to climate change.

TechEmerge Resilience India is a great opportunity for all the tech enthusiasts, innovators in India, and around the globe with their newfangled and innovative solutions against these problems, the deadline for the challenge is July 26, 2020.

TechEmerge Resilience India is a vision towards a solution for key Resilience obstacles that are important for India as well as global. It is a facet of the 'Global Tech challenge' introduced by the World Bank Group and CES; the challenge aims at finding out the most disruptive technology innovators for the global challenges. The challenge is currently concentrating on two major challenges- Disaster management at the time of pandemic and Resilience to Climate Change and Disasters.

CHALLENGES IN HAND

Disaster management at the time of pandemic and resilience to climate change both these challenges are the targeted areas where a prompt tech solution is needed, the key arrangements in this front were centred around handling the spread of the COVID-19 pandemic and its economic, social effects, along with countering the cyclones in India. Market analysts have seen that they proceeded with expansion and joblessness matched with the despair and lack of concern of COVID-19 can have long-standing permanent harms to the economy in India and other key nations also. The ideas in this track welcomed interesting arrangements in the field of incorporated wellbeing and catastrophe information arrangements, anti-disaster measures for high-hazard networks just as early alert system, and post-calamity evaluation.

Further Tech trailblazers and specialists who either have models or demonstrated proposition in the road of Risk Information and Resilience Analytics, Hyperlocal early alert frameworks, Building strength and moderating dangers or nearby flexibility and reaction limit can showcase their ideas.

REASON FOR SUCH CHALLENGE

Innovation and information have the intensity of seeing any huge scope issue and can frequently help us with imaginative arrangements that are the need of great importance. The thoughts and developments that have been acknowledged at TechEmerge Resilience India will be surveyed by a presumed jury including IBM and NASSCOM, and the most significant chose idea will get award subsidizing from a pool of up to US\$1 million and an opportunity

to work with State Disaster Management Authorities. In any case, more than that, this medium offers you the stage to add to causes that require consideration and achieve groundbreaking changes in the debacle of the board framework.

TECHNOLOGY VS CLIMATE CHANGE

India, as of late got its first-since forever environmental change evaluation which catches the sad truth of where we stand. In addition to the fact that we are set out toward an ascent in temperature by 4.4 Celsius, yet our ocean level is likewise extended to ascend by 30 cm before this present century's over. Current realities and projections of this report feature that we have to handle this issue. and we have to do it now. The most effortless approach to start is by opening the field for everybody, in the desire for looking at other noteworthy ideas that can assist us with easing back this down. The utilization of rising innovations like AI, IoT, Blockchain can upset the way calamity managers and leaders obtain, break down, and follow up on outrageous occasions and effects of environmental change. To address these difficulties in catastrophe readiness and atmosphere variation, and to use the creative assets effectively accessible. there is a need to accumulate these mindfulness/tech ideas and put them into action.

ADD-ON TO THE COMPETITION

Notwithstanding the social just as enthusiastic fulfillment of being an aspect of a reason a lot bigger and substantially more significant than our ordinary life, the TechEmerge Resilience India Challenge likewise offers some appealing advantages that will propel pioneers to give their level best. After the applications at the TechEmerge Resilience India Challenge are assessed by a presumed jury, chosen victors will approach a pool of up to the US \$1 million in award financing for arrangement, upheld by UK's DFID. What's more, they will likewise get a chance to work with the Disaster Management Authorities (DMAs) to convey their answers. The best five trailblazers will likewise get a chance to exhibit their answers at Consumer Electronics Show (CES), which is on January 2021 in Las Vegas.

India is one of the handfuls of nations that have figured out how to handle various debacles with terrific artfulness. Notwithstanding, there are a few roads that require expanded consideration, and outrageous climate occasions brought about by environmental change are at the head of the rundown. This activity expects to recognize this high-hazard and give unmistakable ideas that will assist us with building versatility too, and deal with, the future catastrophes better.

The key result from the TechEmerge Resilience India Challenge is to assemble the huge advancement and innovation ideas that will assist India with combatting the issues of environmental change and calamity management.

TRACING THE NEGOTIATIONS FOR THE 2022 POLITICAL DECLARATION ON ENVIRONMENT

Nikita Mohapatra, 4th Year, MNLU, Aurangabad

The negotiations for structuring the 2022 Political Declaration on Environment began as early as May 2018 with the United Nations (UN) General Assembly's mandate to fix lacunae involved in the operation and implementation of International Environmental Law and related instruments. The result was Resolution 72/ 277 on "Towards a Global Pact for Environment" highlighting "active and meaningful engagement" by stakeholders, the inclusion of the "environment factor" in sectoral plans and policies and a recommendation to UN Environment Assembly (UNEA) to formulate a political declaration in its February Session 2021 (UNEA-5), to commemorate the UN Environment Programme of 1972.

These were substantiated by the UN General Assembly in August 2019 Resolution 73/333 along with the decision of holding three informal substantive consultation meetings by the Committee of Permanent Representatives to UNEA.

The first set of meetings took place from 21st- 23rd July 2020 with countries focussing on the issue of International Environmental Law implementation and the framework for the political declaration.

While a large majority of states emphasized and reaffirmed the need to adopt a formidable and meaningful "global pact" of international environmental law and governance, the United States, however, stood as the biggest opponent to this proposal. On similar lines, while the European Algeria, Colombia and New Zealand Union. encouraged a common understanding of "principles international environmental law" of recommended the inclusion of the same as a means to cement implementation, The Africa Group and Chile objected to the same and recommended the focus to be around future implementation rather than adopting the "principle-based mechanism" for the same. In addition to that, the EU suggested a followup mechanism and Turkey, though acceptive of the idea of the declaration, discouraged the inclusion of technical measures of implementation and focussed on enhancing the practical aspects of the same.

A large majority of States recalled the Rio Principles and stressed its continued importance. The "principle of common but differentiated responsibilities" was discussed to recognize the essence of equity in responsibilities and the need to consider national circumstances and development factors of each nation while ensuring the implementation was highlighted, apart from those countries engaged in the discourse of dissecting the implementation of existing instruments on the environment, the role of the UNEP and cooperation between States and the paramount importance of the political declaration in stabilizing and enhancing the international environmental law and governance.

The resultant "Building blocks of a draft Political Declaration" drew upon the above discussions as well as the recommendations of the General Assembly Resolutions 72/277 and 73/333.

The second round of informal substantive consultation meeting is scheduled to be held from 3-5 November 2020 on United Nations General Assembly resolution 73/333, entitled "Follow-up to the report of the ad hoc open-ended working group established according to General Assembly resolution 72/277".

The above negotiations portray a dichotomy between the views and opinions of various countries regarding securing the contours of environmental governance which validates the existence of both positive and negative development imperatives in this field. The reaffirmation of principles of environmental law and the encouragement by States to accept and fix the implementation glitches are a positive stride in the right direction. But standing in polarity, is the view of the United States, one of the developed countries which oppose the idea of the global pact and implementation mechanism. The portrayal of such opinion by a developed nation not only discourages future endeavours in this arena but would also pose as an obstacle in fixing the loopholes present in the current environmental governance system. The nuances of our environment have undergone paradigm changes over the years. The apprehension of the past is the reality of the present. Under such precarious times, it is only fair that States cooperate to stabilize the rickety realities of the environment.

THE TALE OF ENVIRONMENTAL CLEARANCES AND VIZAG GAS TRAGEDY

Abhishek Singh, 4th Year, MNLU, Aurangabad

INTRODUCTION:

A gas leak from the LG Polymers plant in Visakhapatnam, which was operating without environmental clearance for over two decades, killed 12 people and sickened hundreds on May 7, 2020. The plant was using styrene monomer (C8H8) to produce expandable plastics. Styrene monomer must be stored at temperatures strictly below 17 degree Celsius.

HISTORY OF THE PLANT:

The LG Polymers plant, owned by the South Korean firm LG Chem, has changed hands several times since its inception. It was first established by the Mumbai-based Shriram Group in 1961, under the name Hindustan Polymers, to convert alcohol from molasses to produce styrene. Styrene is mostly used in the production of polystyrene, which is used to make the parts of appliances, electronics and automotive; and also in food packaging. The Andhra Pradesh government then sold 216 acres of endowment land belonging Simhachalam to Devasthanam in the sparsely populated R.R. Venkatapuram village to the Shriram Group. In 1971-72, the management expanded its operations and began manufacturing polystyrene.

In 1978, the plant was taken over by McDowell and Company Limited of the United Breweries (UB) Group, owned by Vittal Mallya and Vijay Mallya. The UB Group began to manufacture expanded polystyrene. In the early 1980s, the manufacture of styrene was stopped when the UB Group found it less expensive to import styrene from countries such as Saudi Arabia and Singapore.

LG Chem purchased the plant in 1997. It dismantled the old styrene plant and began storing imported styrene in a few tanks, one of which malfunctioned on the fateful night of May 7.

The tank had a capacity of 2,400 mt. On the night of the incident, it contained about 1,800 tonnes of styrene monomer, company officials said. But LG Polymers, which is facing flak for what appears to be sheer negligence and lack of oversight by the company, refused to take questions despite repeated attempts during that period. It shipped about 13,000 tonnes of styrene from the plant to South Korea immediately after the incident.

LEGAL SANCTIONS:

After the Bhopal gas disaster, India enacted a plethora of laws to prevent such accidents and to issue clear guidelines on the storage of hazardous chemicals in plants. The Environment (Protection) Act, 1986 is the omnibus act that gives sweeping powers to the central government to take all measures to protect the environment.

There are clear rules on hazardous chemical storage under the Act. These include Hazardous Waste handling (Management, and transboundary movement) Rules, 1989; Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989; and Chemical Accidents (Emergency, Planning. Preparedness and Response) Rules, 1996. That such an accident could happen despite these laws shows negligence on the part of all parties. The unit in question is also an ISO certified facility, which means it has a protocol for everything. What seems to be the case is that the management, in its haste to restart the plant, ignored the protocol about the maintenance of the plant before operations.

ROLE OF NATIONAL GREEN TRIBUNAL:

In its order, NGT has issued notices to APPCB, district magistrate of Vishakhapatnam, Central Pollution Control Board (CPCB), MoEF & CC and LG Polymers India Pt Ltd for their response on the accident. The court has also appointed a five-member committee of various renowned members of different fields to carry on the research.

The committee has to report its findings as to what went wrong, the extent of damage and remedial measures initiated within the stipulated time.

It remains to be seen whether NGT's order on this issue will set a precedent to discourage industrial disaster or not.

Though the cognizance of the accident is a welcome move, the court could have widened its scope and directed the government to circulate an immediate directive to industries asking them to ensure safety while resuming operations. These accidents have shown that there must be more cautious when it comes to the point of protecting people from these hazardous gases which can leave there impact till many years leaving the affected one's and their suffering. There must families be implementation of laws so that strict penalties can be imposed to set an example and for the public good.

"NEELUM-JHELUM BEHNE DO, HUMEIN ZINDA REHNE DO"
:PROTEST ERUPTS OVER ILLEGAL DAM CONSTRUCTION IN POK.

Indronil Choudhry, 3rd Year, MNLU, Aurangabad

Pok(Pakistan occupied Kashmir) is known for a lot of things, for example, it is one of the most politicised regions on the planet which end up amidst an armed conflict more than often. It has also been called Launchpad of Pakistani Terrorists. PoK is in the mentions of Human Rights Violations, every then and now. One thing is for sure, PoK has never been in the newlines for its environmental concerns.

On 6th July, The residents held a Massive protest and a torch rally in Muzaffarabad city of Pakistan occupied Kashmir (PoK) to oppose the construction of mega-dams. These mega-dams are to be constructed by Chinese firms on Neelum-Jhelum River. On 8th September again the protest was held. It goes to show the severity of concern relating to massive construction. Cleary, the Protests in PoK are continuing for a long time.

Still, their voice is not being heard, which is enough establish the disregard of the Pakistani Government towards the issue. The protestors numbered in thousands hailing from the city and other parts of PoK. The attendees from "Darya Bachao, Muzaffarabad Bachao" (Save River, Save Muzaffarabad)Committee" were heard chanting "Neelum-Jhelum slogans like Behne humeinZindarehne do" (let the Neelum and Jhelum rivers flow, let us live). As the demonstration took to streets, the locals did not hesitate in questioning under what treaties China and Pakistan were constructing dams on these rivers. The protestors also claimed that the projects violate United Nations Security Council (UNSC) resolutions by occupying river.

The construction of this mega project is a result owing to the China–Pakistan Economic Corridor (CPEC), which is a collection of infrastructure. The corridor has been in operation, since 2013. CPEC was envisioned for rapid growth and up-gradation in much needed Pakistan's infrastructure and to fuel its economy by the construction of modern transportation networks, several energy projects, and special economic zones.

Consequently, China and Pakistan signed agreements to construct Azad Pattan and Kohala Hydropower Projects in Pakistan OccupiedKashmir on 6th July 2020. The Hydroelectric Power Projects will generate 1,124 megawatts of electricity after its completion in 2026. These projects will cost 2.4 billion US Dollar. Chinese Companies sponsor these megaprojects.

The residents of the area are against the economic, environmental and demographical outcomes of the massive projects. The locals are in state apprehension due to high Chinese presence in the area, which could spark the systematic human rights violations similar to UyghurMuslim and the Baloch community. Locals accuse Pakistan and China of jointly plundering the natural resources of PoK and GilgitBaltistan in the veil of ChinaPakistanEconomic Corridor.

The resentment is running high as China is reaping the economic benefits as workers are not local.

Moreover, People in PoK have been denied rights, including electricity and jobs.

The major cause of the strife which displeases the inhabitants is the massive construction of dams and river diversion projects threatens the very existence of the river and by extension threatens their existence. The protesters said that the environmental impact of dams could be catastrophic. Dr Amjad Ayub Mirza, a political activist who hails from PoK, told, "Such China's Three Gorges Corporation is constructing these billion dollars projects like Kohala Hydropower and Neelum-Jhelum Project Hydropower project, and they have changed the course of the rivers. This has caused a severe rise in temperature in Muzaffarabad."

He continued while adding that, "Once roaring Neelum River now gives the looks of a small rivulet. It has severely affected the residents as they even do not have drinking water. The river is flooded with sewage."Dr Mirza went on to express his fear that poor people will end up paying the huge debt which loaned by China to Pakistan in the form of "Damn" construction, which will add on to the misery of locals.

Raza Mumtaz Khan of the Awami Action Committee claimed that the Chinese Companies has not worked towards removal local apprehensions over the project and the water resources of the area including Durbangarh and Narolla have dried up.

While to continue the demonstration of the dismay on 22nd September, Residents again took to the streets large-scale protest a against Pakistani administration for diverting water from Neelum River to the needs of Punjab Province for Power Projects and leaving the region dry. This has led to the worsening of the situation in the region. Lower regions like Muzaffarabad city is facing a severe shortage of water. People are compelled to leave their homes and property due to this. Locals believe that this project is meant for the sole benefit of the people of Pakistan and which will leave their region dry.

Locals claimed that the grave shortage would destroy the lower-lying area where the water flows are left deprived of any water. The natural habitat and wildlife of the lower regions will be destroyed owing to the water shortage. Neelum is the major source of water for the local fauna and flora. The only water is flowing in the river Neelum is sewage, and it looks no more than a drain.

It would not be an over-exaggeration to call this catastrophe a global issue unless the issue is not resolved quickly with favouring reforms which serve the local populous. The issue at hand can have a long-lasting effect on Geo-Political arena, as it grasps the economical. demographical, environmental windpipe of the PoK dwellers. We can only expect a suo moto intervention from Pakistani Supreme Court if it is allowed Additionally, International support will carry heavy importance to grab the attention of the UN, UNHRC, UNEP and other associated behemoths. Only time is to tell the fate of PoK and its concerns.

ZOONOTIC DISEASES AND ENVIRONMENT

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The world of animals, humans, and the environment is interlinked, giving rise to several benefits and a spread in zoonosis and multifactorial chronic diseases. Zoonotic diseases, also known zoonoses, are illnesses that can spread between animals and people. The world did not take this seriously until all of us were stuck in the pandemic. A zoonotic disease is a disease passed into the human population from an animal source. The COVID-19, which has already caused more than half a million deaths worldwide, most likely originated in bats and the anthropogenic pressures have intensified only the latest in a growing number of diseases including Ebola, MERS, West Nile fever, and Rift Valley fever – which spread from animal hosts to human populations.

The same outbreaks have caused severe illness, deaths, and productivity losses among livestock populations in the developing world, a significant problem that keeps hundreds of millions of small-scale farmers in extreme poverty. In recent times, zoonotic diseases have caused economic losses of more than \$100 billion and a lot of loss to the environment directly or indirectly.

A new report warns that such outbreaks will tend to emerge unless governments take active measures to prevent other zoonotic diseases from crossing into the human population.

The report, Preventing the Next Pandemic: Zoonotic diseases and how to break the chain of transmission. It is a joint effort by the United Nations Environment Programme (UNEP) and the International Livestock Research Institute (ILRI).

The trends identify driving the increasing emergence of zoonotic diseases, including increased growing demand for animal protein, a rapid rise in an unsustainable way of farming. In addition to it, the increased use and exploitation of wildlife and the climate crisis have caused an enormous burden on the environment itself. The climate crisis and global warming are the main cause of zoonotic disease.

"The science is clear that if we keep exploiting wildlife and destroying our ecosystems, then we can expect to see a steady stream of these diseases jumping from animals to humans in the years ahead," said UNEP Executive Director Inger Andersen.

Pandemics are crushing lives, economies, and the environment. It is always by way of statistics that the poorest and the most vulnerable who suffer the most that we have witnessed in the past few months. To prevent such outbreaks in the future, we must become much more deliberate in protecting our natural environment.

Therefore, considering all of these, it is evident that zoonotic disease and the environment are interlinked. Due to conditions, the government has to take significant steps to balance control between zoonotic diseases and the environment. They indirectly hamper the economy of the country which in turn, stops the state in adopting facilities to curb such diseases due to lack of funds.



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