



**CENTRE FOR ENVIRONMENTAL LAW, EDUCATION,  
RESEARCH AND ADVOCACY, (CEERA)  
NATIONAL LAW SCHOOL OF INDIA UNIVERSITY,  
BENGALURU**

*In association with*

**MINISTRY OF ENVIRONMENT, FOREST AND  
CLIMATE CHANGE  
GOVERNMENT OF INDIA**

*Organizes a*

**ONE-WEEK REFRESHER TRAINING COURSE**

*On*

**BENEFIT SHARING FROM FOREST ECOSYSTEM  
SERVICES: LAW, POLICY AND ADMINISTRATION**

**Under the broad theme**

**CUSTOMARY AND FORMAL LAWS FOR  
BENEFIT SHARING FROM FOREST  
ECOSYSTEM SERVICES: MOST OF STATE  
FOREST DEPARTMENT CAN  
PROMOTE FOREST DEVELOPMENT**

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**REPORT OF THE PROGRAMME**

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**DATE: AUGUST 23<sup>RD</sup> – 27<sup>TH</sup>, 2021**

**VENUE: ONLINE ZOOM HOSTING**

## TABLE OF CONTENTS

<b>ACKNOWLEDGEMENT.....</b>	<b>4</b>
<b>ABOUT NLSIU .....</b>	<b>5</b>
<b>ABOUT CEERA .....</b>	<b>5</b>
<b>ABOUT THE TRAINING PROGRAMME.....</b>	<b>7</b>
<b>SUMMARY OF PROCEEDINGS .....</b>	<b>8</b>
DAY 1: 23 <sup>RD</sup> August, 2021 .....	8
Inaugural Session:.....	8
Session 1: Forest Policies and Sustainable Development .....	9
Session 2: Forest Dwellers and their Rights .....	11
Session 3: Industry, Forestry and Biotechnology .....	12
Session 4: Potential of Forests to obtain Carbon Finance and Ecosystem Services.....	15
Day 2: 24 <sup>th</sup> August, 2021 .....	18
Session 1: Introduction to the Biological Diversity Act, 2002.....	18
Session 2: Intellectual Property and Biodiversity: Bio-piracy Issues.....	19
Session 3: Powers and Functions of the National Biodiversity Authority .....	22
Session 4: Panel Discussion - Conceptual Development of Benefit Sharing under International Law .....	24
Session 5: Problem Solving Exercise .....	28
Day 3: 25 <sup>th</sup> August, 2021 .....	30
Session 1: Case Study: Conservationist and Wildlife Protection Act .....	30
Session 2: Guidelines on Access and Benefit Sharing: Case Studies.....	31
Session 3: Biosafety, Forest, and Benefit Sharing.....	33
Session 4: Bio Resources, Value Added Products and Requirement for IPR Protection.....	36
Day 4: 26 <sup>th</sup> August, 2021 .....	38
Session 1: Presentation by Officers .....	38

Session 2: PBR and BMC: Decentralized governance in Environment.....	40
Session 3: In Letter and Spirit: Need for Integration of Laws for a Fairer Deal to Folk Healing in India .....	44
Session 4: Problem Solving Exercise .....	45
Day 5: 27 <sup>th</sup> August, 2021 .....	47
Session 1: Compensatory Afforestation .....	47
Session 2: CEERA: Litigation Profile and advocacy under BD Act .....	48
Session 3: Criminal Prosecution: Court Process and Procedures .....	50
Concluding Session: Feedback and Learning Assessment.....	52

**ANNEXURE I – Feedback Form**

**ANNEXURE II – Learning Assessment Question Paper**

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**Prof. (Dr.) Sairam Bhat**  
Coordinator, CEERA  
Professor of Law, NLSIU

## ABOUT NLSIU

The National Law School of India University, the nation's premier law university, came into existence through a Notification under the National Law School of India University Act (Karnataka Act 22 of 1986). It signified the culmination of efforts by the Judiciary, the Bar Council of India, the Karnataka Bar Council, the Bangalore University and the Government of Karnataka to reform legal education and to establish a centre of excellence for legal education and research in India. The Law School has undertaken many research projects funded by the UGC, the Government of India, the Government of Karnataka, the Department of Women and Child Development, UN agencies, the World Bank, HIVOS, Department of Justice etc.



The projects have served to strengthen research and teaching at the Law School. The National Law School of India University since its inception has taken proactive steps in organizing conferences, seminars, workshops, refresher courses and certificate courses to update academicians, law teachers, students, industry personnel in different subject areas.

## ABOUT CEERA



Centre for Environmental Law Education, Research and Advocacy (CEERA), established in 1997 is a benefactor of the Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of Karnataka, the Bar and the Bench in India and abroad. Building an environmental law database, effectively networking among all stakeholders, building up an environmental law community and policy research in the area of environment are CEERA's main objectives.

To achieve the aforesaid, CEERA has incessantly and successfully been able to build functional and professional linkages with government agencies and non-governmental organisations in India, the South Asian Region and at International levels. CEERA, has been partnering with the Central Pollution Control Board



in organising Training Programmes for the officers of various State Pollution Control Boards and other industry professionals for over eight (8) years. One of the first in India, to be successfully granted a World Bank project and thereafter being a steady choice for the Ministry of Environment Forest and Climate Change, CEERA has been entrusted with research projects

and workshops to impart training to Forest Officers, Revenue Officers, Officers of the Central Pollution Control Board and also of the Government of Karnataka. CEERA is proud to have completed a two-year Research Project granted by the United Nations Development Programme (UNDP) under the Global Environment Facility (GEF), and as one of the deliverables, organised, convened and conducted over twenty workshops at Institutions of national repute creating awareness on the Biodiversity Law and Access and Benefit Sharing (ABS) in less than 2 years. Two research publications on the scanty research area of biodiversity laws were also the outcome of this project. CEERA is currently implementing a Three-Year Project granted by the Ministry of Environment, Forest and Climate Change titled “Collaborative Engagement for Research, Training and Development in Handling of Chemical and Hazardous Waste”. The broad objectives of this project *inter alia* include, providing advisory to the Ministry on matters connected to the Conference of Parties under various Multilateral Environmental Agreements, to which India is a party.

CEERA has several publications in the area of environmental law, the law and public policy along with Newsletters, CEERA March of the Environmental Law, NLSIU’s first e-Journal – Journal on Environmental Law, Policy and Development and manages three websites viz., [www.nlsenlaw.org](http://www.nlsenlaw.org), wherein the law and policy on environment is regularly updated, and [www.nlsabs.com](http://www.nlsabs.com), a dedicated portal wherein the law and policy on Biodiversity Access and Benefit Sharing is updated periodically. All our publications are duly updated on our online portal [www.nlspub.ac.in](http://www.nlspub.ac.in), which is open for subscription to all readers.





## ABOUT THE TRAINING PROGRAMME

The Five-day Online Refresher Training Course was conducted with the main aim of equipping the officers of the Indian Forest Service with the understanding of laws, policies and their practical implications in the conservation of biodiversity and forest ecosystems. The Course was designed with the aim of delivering lectures and deliberating on case studies which would lay emphasis on the legal and regulatory nuances of biodiversity conservation, with special focus on forest ecosystems. As such, emphasis was laid on the Forest (Conservation) Act, 1980, The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, the Stated, 2002 and its Rules, the Compensatory Afforestation Fund Act, 2016 and other related legislations. Recent judicial orders and decisions would also be deliberated upon as a part of the discussion.

The design and scope of the programme was such that the participating officers would have ample scope to understand the legal dimensions of benefit sharing from forest ecosystems along with gaining insights from each other's experience during the training sessions. The sessions aimed to bring to the fore multiple challenges – practical and regulatory - and possible solutions for the same. Resource persons from legal academia, law practitioners, activists, industry experts are chosen to deliver sessions, to make the effort interdisciplinary. Further, as the mode of discourse is mix of lecture and discussion method, the officers were given an opportunity to understand the challenges of benefit sharing and would have been able to appreciate the legal nuances if the subject matter.

## SUMMARY OF PROCEEDINGS

DAY 1: 23<sup>RD</sup> August, 2021

### Inaugural Session:

**Prof. (Dr.) N. S. Nigam, Registrar, NLSIU**

**Prof. (Dr.) M. K. Ramesh, Professor of Law, NLSIU**

**Prof. (Dr.) Sairam Bhat, Professor of Law & Coordinator, CEERA-NLSIU**



The inaugural for the One-Week Refresher Course was given by **Ms. Madubanthi Sadhya**, Teaching Associate, CEERA, NLSIU. A brief overview of the programme was provided, followed by a short introduction of the panelists.

**Prof. (Dr.) M K Ramesh**, Professor of law, NLSIU started the session by talking about the legacy of the event and then proceeded to talk about the theme of the week's events. The very idea of this training course was to allow for mutual exchange of ideas and the application of law in the field. As this session would try to integrate the theoretical aspects of law with interactive, problem-solving aspects, which would ensure a capacity building exercise for both participants and the academicians present. By doing so, the teachers could use the practical examples in the classroom about the real-life application of laws. The officers, could use the theoretical aspect and understand the existing laws.

**Prof. (Dr.) N S Nigam**, Registrar of NLSIU, gave all the members present an understanding about the program. He then highlighted the details of the programme, as it discussed various aspects of forest management, the eco system and other research issues which might arise. By doing so, he brought to light the integration of parties would bring to light various aspects of the laws and help benefit both academicians and officers present.



**Prof. (Dr.) Sairam Bhat**, Professor of Law and Co-ordination, CEERA, NLSIU was the last speaker in the inaugural ceremony. In his introductory note, Prof. Bhat highlighted the nature



of this event. Lectures sessions, interactive sessions, panel discussions, case studies and presentations by officers would all be the core package of the event, which would help all participants understand the law better and get a better analysis of the situations. Prof. Bhat spoke about the broad spectrum covered by the event, with main themes being forest law and biodiversity conservation. In conclusion, Prof. Bhat threw light on the integration of practical aspects and theoretical aspects of the event for the benefit of all participants.

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## **Session 1: Forest Policies and Sustainable Development**

**Dr. Atul K. Gupta, IFS(Retd.) Ex-PCCF & HOFF**



**Dr. Atul Kumar Gupta** explained the topic of forest policy and sustainable development in an elaborate and insightful manner. This segment of the training began with an introduction of the importance of forests in our life and how forests are important for prosperity of a nation and the communities living in it. Thereafter, Dr Gupta went on to discuss some statistical figures which helped the participants to

understand the important of forest policy and sustainable development.

Dr. Gupta then proceeded with the question of how one would determine what is happening inside a forest or how forest conservation works. To answer this Dr. Gupta said that if one wants to determine what happens inside a forest or to better understand the concept of forest conservation, one should look into the data signifying what is happening outside the forest. Moving on to main topic of the discussion that is Forest Policy and Sustainable Development, Dr. Gupta compared the use of forests to the account of the forests resources exploited by humans. For this, he first referred to the concept of GDP of a nation and how some changes in calculating it are necessary. The changes suggested by him were, recording of all tangible benefits to the community by forests, incorporation of environmental accounting in the economic processes, environmental values to be involved in cost benefit analysis. Introduction systems of Payment of Ecological Services (PES), Initiation of Green Fund by Pooling Forest Development Tax from the sale of forest produce and system of Eco tax, and creating a pool of multi stakeholder partnership using the Corporate Social Responsibility Agenda.

Moving on to the discussion on sustainable development, Dr Gupta stated that different groups have different ideas about sustainable development. But as per WCED 1987, Sustainable Development meant an increase in income options without degrading the resources. Hence one can say that Sustainable Development is same for everyone but in different words but at last it is a key factor in global stability. Hence to achieve the target of sustainable development United- Nations developed 17 sustainable development goals which serve as a standard for countries to complete their goals for the same.

Dr. Gupta then discussed about the circle of sustainability, which depicts a very complex process as it is a method for understanding, assessing sustainability and managing projects, which are directed towards socially sustainable outcomes. Further it was stated by Dr. Gupta that the circle of sustainable development is an interplay of three basic tenets of economic, social and community which is a conceptual framework, and it not absolutely independent of humans. It depends on social cultural and economic factors and these factors will help one to assess the development in a sustainable manner hence sustainable development is an interplay of these three, and have to be balances for global stability through sustainable development.

After concluding with the concept of Sustainable Development, Dr. Gupta now discussed the concept of forest policy. For which he started with discussing Policy objectives. He laid emphasis on the fact that, to implement and to adhere to any policy, some objectives are essential and they serve as a guidance. Further he said, contemporary issues like environmental stability sustainable forest management and international cooperation are also coming under the ambit of policy objectives. Then Dr. Gupta discussed about policy instruments and elaborated how policies serve as a broad concept, mandate and provide a road map that help in formulating legally binding acts and rules leading to a course of action/ inaction to achieve the desired goals and objectives.

Forest Policies are concerned with the manner in which forests and tree resources need to be managed to meet society's demand for goods and services that forests can if managed properly for current and future generations. Dr. Gupta then gave all the participants a sneak peek into the National Forest Policy and reviewed it important aspects. Discussing the history of National Forest Policy Dr. Gupta then illuminated the National Draft Forest Policy 2018 and its components some of them were institutional setup to launch a community forest management mission and national board of forestry for better management of forest resources, soil and water conservation methods, agro-forestry industry to generate employment and would also be beneficial for conservation, program integration to satisfy both forest management and climate control aspects. PPP Model to use degraded pieces of land for timber production through afforestation and reforestation measures, Urban Cover and use of technological innovations.

Then Dr. Gupta explained how sustainable development is linked with forest policies by stating ***“Measures designed to conserve biodiversity (forests) must provide economic incentives to increase the net local benefits from conservation and sustainable resource use. Such measures should be targeted to link biodiversity conservation with improvement in human welfare.” McNeely (1988)***

Dr. Gupta also highlighted the global attempts to link sustainable development and forest policies by talking about Convention of Biodiversity and how India adopted it at the right time and enacted the Biological Diversity Act of 2002. The 17 SDG's and their relation to forest sector was discussed then, it was stated that forest sector can be grouped to SDG 15 and its target was explained. It was also explained that how focus on one SDG may result in trade off with another. Dr. Gupta then emphasised on how three spheres consisting of Environment, Society and Economy are related with SDG's.

In the concluding contention Dr. Gupta discussed the way ahead in order to achieve the SDGs with implementation of forest polices. Some international and national legislations which Dr. Gupta referred to were United Nations Framework Convention on Climate Change. Food and Agriculture of Organisation of the United Nations, The International Tropical Timber Organization, the World Conservation Union, The Nature Conservancy, The World Wide Fund for Nature, International Plant Protection Convention, National Afforestation Program, Compensatory Afforestation Fund Management and Planning Authority, Green highway policy, Policy for Enhancement of Herbal Greens, National Agroforestry Policy.

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## **Session 2: Forest Dwellers and their Rights**

**Prof. (Dr.) M. K. Ramesh, Professor of Law, NLSIU**



**Prof. (Dr.) M. K. Ramesh**, commenced the second session by deliberating on three broad questions to understand the on-field scenario and stir an interactive discourse. The following questions were posed:

1. Was there a need for the state to legislate the Forest Rights Act, 2006 (FRA, 2006)?
2. Are the provocations made by the government vis-à-vis the Act justified?



3. Is the Act systematic, i.e., does it work? Is it truly effective in conserving, protecting, rejuvenating the forest ecosystem?

After posing these ‘questions,’ Prof. Ramesh requested participants to provide their insight through personal anecdotes or experience, as they have on-field familiarity. Answering the same, Ms. Padmawathe, DIGF, IRO, Bengaluru provided fruitful insight that laid a foundation for forest dwellers’ discourse and rights. In response, Ms. Padmawathe shared her opinion of the FRA, 2006 being unnecessary in a few stated, i.e., its universal application imposes hurdles in enforcement. Ms. Padmawathe also shared her dismay in its effectiveness as rather than preventing, it triggers and exacerbates encroachment, the implementation of a ‘cut-off date’ has burdened documentation. Lastly, Ms. Padmawathe shared her anecdotes on how the role of women has truncated after the enforcement of the FRA, 2006. Ms. Padmawathe, providing an example of women in Tamil Nadu, shared that women have been cultivating independently on their land before the Act. However, they have been side-lined by their husbands as the ‘title’ ownership has switched possession. Thus, this session was conducted through an interactive discourse to understand and highlight the practical challenges in implementing the Forest Rights Act, 2006.

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### Session 3: Industry, Forestry and Biotechnology

**Dr. Suhas Nimbalkar, Partner & Consultant – IP & Regulatory Affairs, Eitimo Ventures**



**Dr. Suhas Nimbalkar**, Partner and Consultant in IP & Regulatory Affairs, Eitimo ventures, gave a lecture on the topic of industry, forestry, and biotechnology in the context of access benefit sharing (ABS). Through this session, he spoke about the industry landscape with respect to scope of Biological Diversity Act, a brief into how the biotech industry – its valuation,

segmentation, and policy support it has gained and access benefit sharing is visualized. He also covered ABS landscape, the data it is emerging, the challenges in data capture, scope, and impact of such data and the best utilization of such data.

He referred to Section 2 (c) of the BD Act, 2002 which defines the term, “biological resources” as, “plants, animals and microorganisms or parts thereof, their genetic material and by-products (excluding value added products) with actual or potential use or value but does not include human genetic material.” This is the subject matter and scope of the BD Act. He stated that it is not geographically restricted and encompass everything from forest to non-forest land, including urban areas. Hence, the scope of the Act is very immense and wide. The potential

use also must be kept in mind while determining the scope of ABS. The example of corn was taken to illustrate the same, wherein its uses has now shifted from not just being a food but also having an industrial purpose and has a commercial use. Hence, he argued that it becomes difficult for regulators to draw a line to differentiate and determine the applicability of ABS. These are the challenges; regulators face when it comes to assessments.

He touches upon the valuation, segmentation, and policy support of the biotech industry specifically if biodiversity/environment/forest policies were supporting the industry. He took the example of the Plant Biotech Landscape, 2017 to further illustrate. This landscape has gene editing, bio-pesticides, cloud biology, epigenetics, biotech trails, breeding and bio stimulants. He stated that all of them will use some type of plant resources. He also took the example of the Animal Biotech landscape to further illustrate. Mr. Nimbalkar stated that biological resources play an important role not just in revenue generation but also in food security. In India, we consume a lot of fruits and vegetables but a lot of them aren't endemic to India, only very crops such as Banana are native to India. Vegetables like cabbage, cauliflower are all cold countries crops but have been domesticated in India. Hence, biological resources do not just serve to generate revenue but also to sustain livelihood as well as add to food and nutritional security of any region.

Indian Biotechnology's valuation today, as per Mr. Nimbalkar, comes from the IBEF 2021 report. The projection is around 16.4% of annual growth rate and is in US billion dollars, thus has a huge potential. In a period of two years there has been a jump of 100%, from 85% to 150% US\$ billion. When one investigates the segmentation of Biotechnology industry, it primarily dominated by Biopharmaceuticals, post which comes in Bio-agriculture. The biotech segmentation in India is into five industries; Biopharma, bio-services, bio-Agri, bio-industrial and bio-IT. Biopharma has gained a lot of attention in the last year due to the pandemic, and the vaccination production by this industry. Bio-services primarily has contract manufacturing and clinical research. He stated that the Bio-Industrial is very small and primarily deals with Biofuels – one of the renewable energy sources, Industrial enzyme – which aims to replace any chemical process with an enzymatic process which makes it more sustainable, more eco-friendly and limits pollution. Mr. Nimbalkar stated that the industrial enzymes can be seen utilized in food industry, textile industry and polymer industry and has a growing market for the same. Bio-IT deals with big data and precision medicine. Bio-Agri focuses on bio-fertilizers and bio-pesticides as well as hybrid seeds, thus creating a shift towards sustainable agriculture.

Addressing the realm of policy support to encourage people to get investment into India, Mr. Nimbalkar stated that the primary focus is on innovation. Mr. Nimbalkar stated that a lot of schemes are being announced, lot of space has been created to enable investment into India and there has been a push to strength the institutional capacity of research and strengthen of human capacity. All this results in increase in investment in the R&D sector. Investment has been not only from India but also from foreign entities to conduct research in India. Mr. Nimbalkar noted that there is an increasing demand for investment as well. There is a growing demand for agriculture-based products, incidence of chronic ailments and a growing demand for personalized medicines and biosimilars. All these are drivers which invite policy support.



Mr. Nimbalkar claimed that policy support has been huge, wherein there has been 100% FDI under automatic route for greenfield projects, 100% FDI under government route for brownfield investments and 74% FDI under automatic route for brownfield investments. This policy support results in increasing investment, expanding production and distribution facilities, increase in R&D activities and provides support to global projects.

The ‘Moringa Export Zones’ was declared in seven districts in Tamil Nadu in July 2021. This was cited by Mr. Nimbalkar as an example of a recent policy decision. Moringa now known as a super food and its consumption has increased around the globe and has resulted in an increased export of the same. To meet the increasing demand, an ‘Special Export Facilitation Centre’ has been established in Madurai and where there would be procurement, convergence of exporters, importers, and farmers. The object is to generate around 10,000 crores income per year and over a period approximately 50,000 crores. Mr. Nimbalkar stated the target is large but achievable and needs an increase in moringa cultivation from 30,000 to 50,000 acres.

He then looked into ecosystems across business value chain and referred to the IBBI disclosure Report, 2021. As per the said Report Forest (27%) adds in the most economic activity into the industry followed by freshwater (23%) and greenbelt (20%). Hence forestry plays a main role in supplying raw materials and supporting ecosystem services to the industry. Mr. Nimbalkar argued that currently there is an policy push for innovation, which also generates investment and hence results in an ecosystem for economic leverage. But he puts forth the question, as to if we are in the right direction, is it holistic? He stated that there is a pull and push in the opposite direction, wherein there is a push for investment due to policies while there is a pull in the opposite direction from other policies which do not support, and this results in stagnation. Hence all the policies should be pulling and pushing in the same direction.

He moved on to discuss the access and benefit sharing mechanism (ABS), laid down by the BD Act. Mr. Nimbalkar stated that focus should always be on ABS with respect to Biological Diversity Act. He further looked into the monetary aspect of ABS and argued that too much focus on money can be detrimental for overall value and impact of benefit sharing. He further stated the monetary benefits are not always the most relevant, for example ITPGRFA’s main benefit is access. Hence, companies need to demonstrate a broader approach to benefit sharing and need to think about ethical sourcing practice to demonstrate positive impact. He argued that if ABS is examined too narrowly then a lot of positive impacts would be left out.

Mr. Nimbalkar argued that money is not only an indicator but an essential as recognition of the value of biodiversity and ecosystem services and as a major contribution to resource mobilization for conservation and sustainable use. He made an essential point that benefit sharing is not an end in itself but contribution to conservation and sustainable use is the ultimate goal. Further contribution towards infrastructure, schooling, and other needs of the community such as education and health could also be considered as an indirect contribution to biodiversity conservation and sustainable use. Lastly, he stated that monetary benefits are only short term and one needs to ensure to also meet long term impacts and how ABS contributes to broader policy objectives.

Coming to Data on ABS, Mr. Nimbalkar stated that the long-term benefits is derived from both research and commercial collaborations. He stated that ABS goes beyond NP, and benefits through mechanisms under other international agreements such as the ITPGRFA should also be included. Further, he argued that R&D on genetic resources contribute to societal benefits which are not reflected in mutually agreed terms, and this should be taken into account. One such example of the same is the release of new crop varieties. Further he puts forth that the difference in value of benefit which depends on the perspective, which can be user perspective or a provider perspective.

Mr. Nimbalkar then stated that the post 2020 global biodiversity framework which is related to ABS and sustainable supply chain can be linked. Here, the reporting can be based on CSR policies and related standards. He also stated that the data collection does not necessarily need to be detailed and they need to only share details pertaining to biological resources. This ensures commercial data confidentiality and avoids additional administrative burden. Further he suggested that data collection can be largely automatized and systematized. He also stated his wish for a national register for users to report on benefits shared.

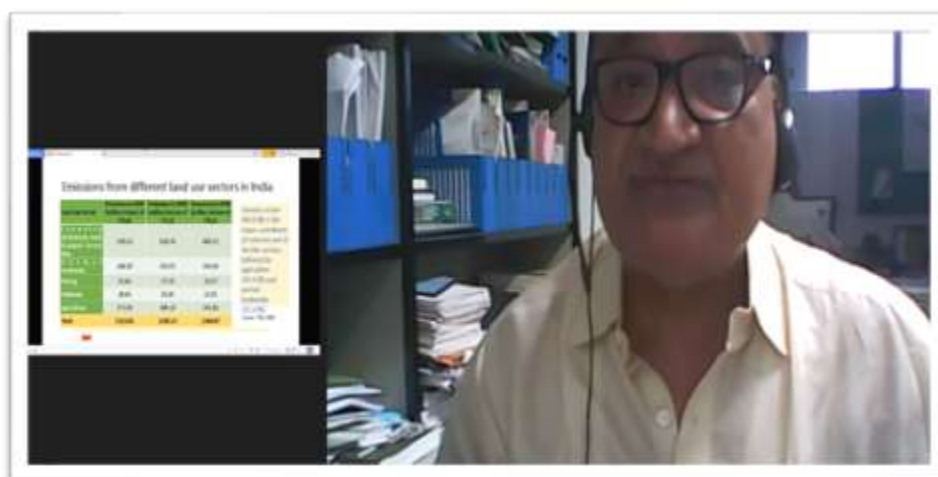
Talking about the various conservation strategies, he enlisted three primary ones – In situ conservation, Ex Situ conservation and cultivation practices. In Situ conservation deals with natural reserves, wild nurseries. Ex situ conservation deals with botanic gardens and seed banks. Lastly, cultivation practice which deals with good agricultural practices. Mr. Nimbalkar further spoke about the shift towards cultivation especially in South Asia.

He took two case studies to understand the contribution of ABS to SDG Goals. The first case study is from Kenya, where they are procuring Baobab. Here the providers were the Kenya wildlife services (KWS) LC in Kilifi, Kitui and Makueni country and the users included Rhine-Waal University of Applied Science, GR Justus-Liebig uni Giessen, Mzuzu University and PhytoTrade Africa, UK to name a few. There have been both monetary and non-monetary benefits from this. Monetary benefits included upfront funds for project partners, a fair price was agreed upon by providers and users. Non-monetary benefits included scientific cooperation, 6 training workshops, and they also were able to acquire equipment. The ABS contribution to the sustainable development goal(s) under this case study covered, SDG 1, 2, 4, 5, 9, 15, and 17. The second case study he touched upon was the case study in Bhutan which dealt with orchids. This also achieved similar monetary and non-monetary benefits and contributed to SDG 1 and SDG 15.

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## **Session 4: Potential of Forests to obtain Carbon Finance and Ecosystem Services**

**Dr. Jitendra Vir Sharma, Director, Land Resources Division, TERI**



The session was led by **Dr. Jitendra Vir Sharma**, Director, Land Resources Division, TERI on the topic of Potential of Forests to obtain Carbon finance and Ecosystem Services. Dr. Sharma had shared several useful insights on the topic, a brief of which is as follows:

The session began with a brief history of climate change. It is observed that Historical Emissions since 1880 has resulted in rise in global temperature by 0.85° Celsius and about 75% of the atmospheric carbon space is observed to be occupied by the developed countries. Emission from India is about 2607.49 million tonnes CO<sub>2</sub>e in 2014As per the Biennial Update Report-II of India which is submitted to the UNFCCC. Despite not being a part of the problem, India wants to help contribute in bettering the situation. Further, emissions from different land use sectors were statistically represented to acquire a better understanding of the topic. It is observed that Forestry sector (48.43%) is the major contributor of emission out of the five sectors, followed by agriculture (24.35%) and animal husbandry (22.33%). Forestry sectors, both at the global scale as well as the national scale, was then presented. It was observed that about 1.6 billion people in the world depend on forest for their livelihood.

Sinks facilitate in removal of CO<sub>2</sub> from the atmosphere. Global forests and other terrestrial sinks absorb 2.6 GtC annually. Reservoirs keep carbon as biomass and forests store about 638 Gt of carbon, as per FAO reports. It is also seen that deforestation and other land-use activities emit 1.6 GtC annually and that deforestation solely accounts for 17 % of the total anthropogenic GHG emissions. Further, impact of climate change on different levels – cell, organism, species and ecosystem by various factors such as CO<sub>2</sub> increase, temperature increase and changes in rainfall regimes are explained.

The benefits of forests in a nutshell are: acts as carbon sinks; caters to societal needs for forest products (timber, fiber, energy); hosts about 80% of the biodiversity; and nurtures soil. Sustainable forest management refers to the maintaining or increasing forest carbon stocks while meeting human societal needs. Climate change mitigation involving forests will be a result of trade-offs in land use between forestry and other land-uses; trade-offs between forest conservation for carbon storage and other environmental services; and trade-offs among utilization strategies of harvested wood products aimed at maximizing carbon storage



The UN Framework convention on Climate Change (UNFCCC) and Kyoto Protocol are integral in climate change action. The UNFCCC lays that “*stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate systems...*”. The Kyoto protocol defined how to bring down the emissions in COP 3 in 1997. Market-based mechanisms such as Clean Development Mechanism (CDM) are designed to ensure that the industrialized countries (meet their emission reduction targets. The central objective of the Paris Agreement, in pursuance of its long-term temperature goal is to maintain below 2°C above preindustrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.

India defines ‘Forest’ as one that qualifies a minimum area of land with 0.05 ha; a minimum tree crown cover of 15% and a minimum tree height of 2m while CDM defines it to be one that qualifies a single minimum area of land of 0.05-1.0 ha; a single minimum area of land with tree crown cover of more than 10-30 %; trees with the potential to reach a minimum height of 2-5 m at maturity in situ. CDM seeks to assist developing countries who host CDM projects to achieve sustainable development and provide developed countries with the flexibility for achieving their emissions of reduction targets, by allowing them to take credits from emission reduction projects undertaken in developing countries. Further, the various carbon markets – both compliant as well as voluntary markets were briefly discussed. VEERA is the largest voluntary standard in the world, having certified reductions of more than 200 million tCO<sub>2</sub>eq

Some of the successful forestry carbon market projects of India were then discussed. TERI has successfully implemented and registered the Afforestation Reforestation Clean Development Mechanism Project (A/R CDM) Project under Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project (UPPFMPAP). All the ten projects are registered with UNFCCC under small scale A/R CDM project. Similarly, Khasi Hills REDD+ is another project registered under Plan Vivo. The project brought together 10 indigenous Khasi tribal kingdoms which encompasses about 62 local communities. It seeks to show how indigenous governance institutions, coordinated through their own federation, can implement REDD+ initiatives that control drivers of deforestation by conserving and restoring forest cover and hydrological function, while at the same time facilitating transition to agricultural systems that are climate-resilient.

There are also projects on generating carbon finance through agro-forestry practices. It is observed that agroforestry-viable alternatives for diversification from existing rice-wheat rotation. Agroforestry can contribute also more than 2 billion tons of CO<sub>2</sub>e by 2030. At present, more than 80% demand of wood and wood products in the country is met from agroforestry sector. The key objectives and the approach to the same and the benefits to the farmers were briefly discussed. The presentation also enlightened about the Punjab Agroforestry Project which is the status of waiting for listing on VERRA; Gujarat Agroforestry Project which is in the process of developing PD; Haryana Agroforestry Project which is yet to initiate; Conservation of Tiger Reserves through carbon finance, a project initiated and the Van Panchayat, an on-going project were thoroughly discussed to provide a deeper understanding of the goals and objectives of these conscious and planned efforts.

It was an insightful and informative session about the potential of forests to obtain Carbon finance and the various ecosystem services that can be employed to reduce emission and contribute to stabilising drastic climate changes.

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## Day 2: 24<sup>th</sup> August, 2021

### Session 1: Introduction to the Biological Diversity Act, 2002

**Ms. Anitha S. Arekal, IFS Officer (Batch of 1989)**



The second day sought to cover various aspects of the biological diversity regime in India by discussing the Stated, 2002. The session began with introducing and **Ms. Anitha S. Arekal**, IFS Officer (Batch of 1989), Additional Principle Chief Conservator of Forests and Member Secretary of the Karnataka Biodiversity Board.

The gist of what she delivered is

as follows:

The session began with introducing the Act and its role and objectives. The constitution of the Karnataka Biodiversity Board, its functions and powers under Section 23 of the Act as well as Rule 13 of the Karnataka Biological Diversity Rules, 2005. The Board is required to advise the State Government regarding conservation of biodiversity within the State as well as regulate granting of approvals in application seeking access resources of related knowledge. The Board must also provide directions to the local bodies and BMCs for effective implementation of the Act and aid in technical assistance to the states.

Further, the role of Form 1 which is the application to seek Access of biological resources occurring in or obtained from India and/or associated traditional knowledge for research, commercial utilization, bio-survey or bio-utilization was also deliberated upon. In the current regime, one of the major steps sought by the framework is the empowerment of Biodiversity Management Committees (BMCs). It is seen that about 6554 BMCs are constituted in the State of Karnataka.

The objective is to set up BMCs at the gram Panchayat level and its role of a conservation committee in the Gram Panchayat has to be developed. It is pertinent to note that BMCs are empowered by the Biological Diversity Act to collect sums for Access and Benefit Sharing (ABS) and BMC charges from traders to ensure sustainable utilisation of bio-resources within the jurisdiction. However, it is important to build the capacity of BMCs. BMCs are integral in



sustainable use of resources and allocation of finance. The aim is to collect 5% cost of ABS in order to finance the administrative costs incurred by the State Board and the existing Village Forest Committees (VFCs). The Biodiversity Board has approached the State Government to integrate the BMCs with the Panchayat Raj institutions. The State Government through the Karnataka Development Programme (KDP) at Zilla Parishad and Taluk Panchayat is sought to be extended to cover the Gram Panchayat as well.

Further, NGT rulings have emphasised on the establishment of People's Biodiversity Registers (PBR). PBR is a Panchayat level register that documents local biodiversity and local community knowledge on biodiversity. It documents several heritage sites such as Nallur (wherein tamarind trees campus for B1 areas), Ambargudda, GKVK, and Hogarekan.

It is also stated that Karnataka is one among the states that progressively regulates ABS. It is seen 95% of the accrued benefits are ploughed back into the local BMCs to facilitate conservation and sustainable use of bio-resources for activities including locating and training BMCs, mapping of areas, re-forestations, development of biodiversity hotspots – as largely inspired by the State of Madhya Pradesh.

With that, the introduction came to an end where one of the officers had raised as to how the distribution between the BMCs and the forest officials in terms of areas and scope of exercising authority and put forward questions relating to the very core of the Biological Diversity Act. Ms. Anitha responded to the query by emphasising the importance of BMC taskforce in ensuring sustainable growth. Moreover, clarifying the essence of the legislation, Ms. Anitha responded by stating that biodiversity regime has extended beyond conservation of bio-resources and included protection of intellectual property rights as well. Prof. Sairam Bhat intervened and stated that the Biological Diversity Act seeks inclusive participation by all entities.

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## Session 2: Intellectual Property and Biodiversity: Bio-piracy Issues

**Prof. (Dr.) Sairam Bhat**, Professor of Law & Coordinator, CEERA, NLSIU

**Ms. Geethanjali**, Legal Associate, CEERA, NLSIU

Following the first session, a panel discussion was held on IP and Biodiversity, dealing with bio-piracy issues wherein the panelists were **Prof. (Dr.) Sairam Bhat**, Professor of Law and Coordinator of CEERA, NLSIU and **Ms. Geethanjali**, Legal Associate, CEERA-NLSIU.

Ms. Geethanjali laid down the synopsis of this segment which comprised of the intellectual property rights in relation to biodiversity, bio-piracy and cases and the legal framework sought to curb bio-piracy. It was an interactive session where participants were encouraged to actively participate so as to make the session fruitful.

The gist of this segment is as follows:



Before getting into what traditional knowledge refers, the concept of knowledge was dealt with. Knowledge is basically any information or awareness or familiarity caused due to knowing a particular thing. Knowledge can further be divided into traditional knowledge – which is possessed by indigenous people and civilisational knowledge – one that grows with civilisation and development of the human

society. Intellectual property rights find its place in providing recognition and protecting intellectual creations. Patent, copyright, trademark, geographical indicators, design protection are some of the major intellectual property rights. The focus is on patent when it comes to biological diversity.

Patents are property rights granted to the inventor of a property. The three essentials to acquire patent rights are: Novelty which means newness; inventive step – which refers to involvement of technical advancement as against what is in existence or not obvious to a person skilled in the field; and industrial application which implies commercial application of the invention. It is important to discuss the concept of prior art search which verifies if there already exists such kind of work. Patents are further not granted in instances such where there is no novelty or inventive stop as in the sense that is explained above and when the patent sought is a non-patentable subject (such as Math, Equations, ideologies, etc.). Further, patents are also rejected if there is an issue with the application which can further be submitted and granted if the application is defect-free.

Moving on to the main subject matter, piracy is discussed. It simply refers to unauthorised use or reproduction of a particular work. Bio-piracy is a term that is evolved when bio-resources or its affiliated traditional knowledge is used or applied without obtaining authorisation and paying compensation for such use. The term came into existence when several tropical countries such as Brazil, India, Madagascar were exploited by MNCs, researchers and other entities denied to pay any monetary compensation and further laid impositions on the very use of such products by the indigenous persons as well. This included commercial exploitation of not just physical bio-resources but also various cultures, knowledge and practices of indigenous people and using and reproducing them without any authorisation and acknowledgement.

For instance, two Indians sought patents for turmeric in 1995 in the U.S. Patent Office, which was subsequently granted to them. However, Council of Scientific and Industrial Research (CSIR) objected the granting of the patent and had successfully submitted the existence of prior art through documented evidences. Similarly, neem was attempted to be patented by a Sudan entomologist despite being used for several centuries in India.

Several instances such as these led to the creation of the concept of bio-prospecting and bio-piracy. Bio-prospecting allows for exchange of resources including traditional knowledge, however at the promise of due and fair compensation for the same or rather responsible commercial exploitation. It was first recognised under the Convention of Biological Diversity in 1992. Sustainable use of resources and implementing ABS effectively to ensure fair and equitable sharing of benefits were the core of the Convention.

Article 15 of the CBD provides that any actor attempting to access and exploit a genetic resource must seek consent from the holder/ provider of that resource, agree on terms on such as resource extraction and benefit sharing. Bio-prospecting contracts contains three essential elements: disclosure of place of origin of the biological resource, prior informed consent & fair and equitable sharing of benefits. Article 16 lays down that the involved Contracting Parties shall cooperate to ensure that IPRs are aligned with the objectives of the CBD and not meant to contradict them. However, this becomes subject to national legislation and international law. Article 22 lays down that the provisions of the CBD will not impact the rights and obligations of countries under the existing international agreements, except in the instance where such exercise would result in a serious damage or threat to biological diversity.

**Prof. Sairam Bhat** intervened to engage and enlighten the officers about bio-piracy in simple terms and invited participation from the officers to gauge their understanding thus far. In a simple fashion, he concluded how bio-piracy can include physical theft of genetic resource, attempt to patent the resource available in one country in another or theft of associated knowledge by using/ reproducing them without prior authorisation. He also highlighted that the major concern that fosters bio-piracy is the lack of documentation of claims that gives rise to misuse of intellectual properties.



Further proceeding, Ms. Geetanjali discussed The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) which was drawn by the World Trade Organisation. Article 27.1 of the Agreement stated that both products as well as their prospects can be extended to select life forms. Despite not paving for recognising specific rights, TRIPS has been significant in terms of patenting under biodiversity regimes. In India, besides the Stated that provides for responsible exploitation, other legislations such as Patents Act, 1970 which went through several amendments to be TRIPS-compliant and mandates disclosure; and the Plant Variety Protection and Farmers' Rights Act 2001 (despite disadvantaging farmers in several aspects) have contributed to prevent bio-piracy.

The last segment of the session was about Traditional Knowledge Digital Library (TKDL). Traditional knowledge based on Indian bio-resources has been particularly vulnerable to patent claims. One active measure India has taken to protect traditional knowledge under intellectual



property rights to curb biopiracy is TKDL. It is born out of collaboration between CSIR, Ministry of Science and Technology and Department of AYUSH, Ministry of Health and Family Welfare, and is being implemented at CSIR to prevent commercial exploitation of traditional knowledge. An inter-disciplinary team of Traditional Medicine (Ayurveda, Unani, Siddha and Yoga) experts, patent examiners, IT experts, scientists and technical officers are involved in creation of TKDL for Indian Systems of Medicine. The project TKDL involves documentation of the traditional knowledge available in public domain in the form of existing literature related to Ayurveda, Unani, Siddha and Yoga.

With that being presented, Prof. Bhat had cited the example of Bikram Choudhry who tried to patent yoga, claiming to have invented his own style. With such examples being cited, Prof. Bhat conveyed an integral point – which is the emphasis on the necessity to claim intellectual properties as that is something India as a country is to do and protect its legacies. Being rich in biodiversity, it becomes essential to claim and protect its sovereignty. It is important to ensure robust implementation of laws and adapt to the dynamic needs to ensure conservation of resources as well as protection of intellectual property.

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### Session 3: Powers and Functions of the National Biodiversity Authority

**Prof. (Dr.) M. K. Ramesh, Professor of Law, NLSIU**

**Prof. (Dr.) M.K. Ramesh** commenced the session by putting forth the question of the role and importance of the NBA to which the officers placed their thoughts and questions. Prof. Ramesh referred to Section 59 of the Act, which address the status, scope, extent, and reach of this law. This provision clearly establishes that it is not an exclusive law on biodiversity. He quoted the section verbatim, which is titled as “Act to have effect in addition to other acts” and stated, “the provisions of the act shall be in addition to, and not in derogation of, the provisions in any other law, for the time being in force, relating to forests or wildlife.” He stated that along with other wildlife laws, and the Biological Diversity Act together constitute as the core biodiversity law in India.



However, this is not exhaustive, and he drew reference to the Environment (Protection) Act, 1986 and the set of rules which deal with hazardous microorganisms and the Biological Diversity Act is inclusive of not just bio resources but life in life forms and extends to practices of conservation, protection, sustainable use and sharing of benefits concerning bio

resources. Mr. Ramesh stated that this act is an overarching law. Hence, State laws are

complementary and supplementary to laws on forest and wildlife. He stated that more than 80% of bio resources fall under forest and wildlife, hence one cannot talk about biodiversity without referring to wildlife and forest laws.

Prof. Ramesh put forth the question of where one would place the National Biodiversity Authority (NBA) among various other authorities in India. He stated that though the NBA has an advisory role to the government of India, but it is not limited to advisory. The NBA also control access, protect IPRs and withdraw approvals. In terms of composition and characterizes of the NBA, Prof. Ramesh referred to the statute, where one can notice a three-tier structure of government. At the apex, is the government of India and the National Biodiversity Authority, at the middle you have the state biodiversity board and the state government. Lastly, at the tertiary level, you have the biodiversity management committees. This follows the constitutional pattern. But when it comes to governance, Prof. Ramesh stated that it is a unique institution, a true reflection of democratic governance, that isn't seen in any other body.

Prof. Ramesh stated that just like the forest and wildlife authority and the pollution control board, there is a professional and skilled personal who operate this biodiversity body. Individuals skilled in science and technology constitute this body. It further combines authority with personal which composes the body. This feature according to Prof. Ramesh is unlike any other body one could compare. The decisions made by this body is not entirely of this body, but it is a well-informed decision which is taken post consulting individuals from different ministries, different professionals and experts. They are aided by specialized committees in the decision-making process. Hence, this structure of the NBA allows for representation of various committees, experts and stakeholders which isn't seen in any other organization/body.

Prof. Ramesh went on to share his experience being a member of the NBA, wherein he was the only lawyer, and continues to be the only person with law background till date. He summarizes the role of Biodiversity authority as one which has varied functions. It is a regulator, monitor, advisor, educator, hand holder, adjudicator, arbitrator, negotiator, investigator, drafter of legislative instruments and policy formulator. They are also the enforcer and implementer. They are the represent of the sovereign when it comes to intellectual rights issues.

Prof. Ramesh listed the major functions of the NBA as follows:

1. Accepting applications for approvals – approvals for access, utilization, scientific application, commercial application, etc. In all circumstances wherein an international authority is involved, the National Biodiversity Authority is the authority to approach to get approval.
2. NBA is the regulator of activities and oversees the implementation of terms and conditions under which the approvals are given, with regards to access, use and application of bio resources, knowledges, traditions, and practices associated.
3. It is the one which prepares future action plans. It undertakes a lot of research and produces a blueprint/template of the action plan for conservation and for achieving many of the goals for future application. This is presented to government of India as an advisor.



4. It issues orders and guidelines for compliance and imposes penalties for execution. This is a major duty of both National Biodiversity Authority and state biodiversity board. He refers to section 53 of the Biological Diversity Act, titled 'execution of determination or order', which reads as, "every determination of benefit sharing, or order made by the National Biodiversity Authority ... shall be deemed to be a decree of the civil court and shall be executable in the same manner as a decree of that court." This provides more than a quasi-judicial function to the NBA, wherein it can issue directions to not just research entity but also a government agency to execute its instructions.
5. The fifth function of the NBA is when it gets into a negotiation, preceding that negotiation it must consult biodiversity management committee operating locally before taking decisions. There is a clear provision for the same, which mandates consultation of grassroots of governance.
6. Report of activities and submission of annual audited accounts to the government. Also determine sharing of benefits and the manner of their application.
7. It is a negotiator with the one who is accessing bio resources, who is putting it into commercial application. The sharing of benefits is put together in a contractual agreement. The contract is formed on mutually agreed terms.
8. NBA also handles issues with respect to intellectual property concerning generation of knowledge, its application, bio resources about traditional knowledge system and patenting. When the IPR authorities take applications with respect to anything covered by the Biological Diversity Act, there is a precondition to be satisfied. This precondition is satisfied through a clearance from the NBA.
9. It also another quasi-judicial function. This is in respect to conflict between two state biodiversity board, when they both are in dispute with each other. This conflict is resolved by the NBA and acts as the appellant body with regards to such issues.

In conclusion, Prof. Ramesh stated that the national biodiversity committee should always consider communitarian interest as paramount. He stated how NBA is highly democratic for ventilation of ideas but a marketplace when it comes to decision making, and is very chaotic.

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## **Session 4: Panel Discussion - Conceptual Development of Benefit Sharing under International Law**

**Prof. (Dr.) Sandeepa Bhat, Professor of Law, WBNUJS.**

**Prof. (Dr.) Sairam Bhat, Professor of Law & Coordinator, CEERA-NLSIU**



In this panel discussion, **Prof. Dr. Sandeepa Bhat**, Professor of Law and Director of Centre for Aviation and Space Laws, NUJS, gives an in-depth view about the concept of Benefit Sharing from its evolution to the present day.

Dr. Bhat initiates the discussion from the concept of Res Nullius and Res Communis theorized in Roman Law. Prof. Bhat spoke about how the concept of Res Nullius advocated the

concept of common rights. He brought to light the idea of how the resources have been presumed to not belong to anyone, therefore whoever claims the first rights for the same would be the right holder on the same. The current state of the concept talks about how there are examples even in the present state on res nullius, fish at high seas, the moon, sun etc. Prof. Bhat then moved on to talk about Res Communis, the rights of everyone. This concept brought to light, common rights principle which is the right all individuals of the public have on the resources. Common properties such as parks, forests etc would fall under the purview of common property which can be enjoyed by all. But the main problem, as was highlighted is the lack of benefit sharing. Private property and private ownership took a lot of primacy in those times.

Continuing, Dr. Bhat proceeded to discuss about the development of the concept of benefit sharing after second world war. When the developed nations started to exploit resources and develop their technology. Resources from the developing nations, the nations which had just then gotten their independence from their colonial rulers, all of which were being exploited by the developed nations. The general expectation at the international level, is the idea of developed nations sharing the benefits derived from their technological advances.

Dr. Bhat then highlighted the problems of the concepts of res communis and res nullius, which acted as the carrier for the idea of “Common Rights Principle”. Major breakthroughs in the realm of common rights sharing at the international forum as highlighted by Prof. Bhat were; Article 1 of the Outer Space Treaty that laid down the idea of benefit sharing for all of mankind, and the Antarctica Treaty, that talked about how every act must be performed with ‘interest of all mankind’ in mind. Prof. Bhat then highlighted as to how these two international agreements acted as the starting point for legal development for the concept of benefit sharing.

Prof. Bhat then brought to light the concept of “Common Heritage of Mankind”, a celebrated international concept in the common rights regime. Advocated initially by Ambassador Arvid Pardo to the United Nations. The main reason to do so was the exploitation of resources by the developed nations. Arvid Pardo highlights five novel elements with respect to common heritage of mankind.

1. Individual non-appropriation – This highlights the aspect of no state declaring monopoly over the common heritage of mankind.
2. International Management System – A strong supervising international management system in the areas of common heritage regions. The sharing of benefits is also to be maintained.
3. Mandatory Equitable Sharing of Benefits – this is a principle of which has to be mandatorily imposed on the signatories. This brings in a question of understanding equitable sharing of benefits and the argument between the developing and developed nations. This concept brings to light as to how the charity of nature is for the purpose of bridging the gap between rich and the poor.
4. Conservation for the future generations – any and all common rights concept is to be incorporated with the concept of sustainable development. This is to be done because of the susceptibility of common rights property to the tragedy of commons, this is when people use up all the resources and there would nothing remaining for the future generations.
5. The usage of the common heritage property for peaceful purposes – This ensures for the resources to be protected and not used for either military or destructive purposes.

Article 11 of the Moon Agreement and Part 11 of UNCLOS were cited by professor as examples for the common heritage of mankind. The former which talks about the activities conducted on the moon and other celestial bodies to be considered as resources for all the people. The later talks about a ceiling cap on the number of resources drawn from the seabed, which also have to be equitably shared. A question when asked about the hidden agenda behind the concept of equitable sharing of benefits, professor mentions the same with affirmation. He talks about how common heritage concept has slowly developed from the 20<sup>th</sup> century and at present has given way for private players. The inclusion of private players would just undo the long process taken to mandatorily share all benefits. Therefore, the hidden agenda would be with respect to having access and utilizing the benefits derived from the resources.

Even with the existence of such international arrangements, professor highlights the withdrawal of the developed nations to be part of the same. He discussed as to the reason for them to do the same is to bring in the concept of privatisation to further exploit the resources for a more commercial purpose.

Dr. Bhat reflected on the Nagoya Protocol, highlighting the mandatory equitable sharing of benefits objective. The benefits derived from genetic research are to be shared by the states and the states also have a duty to bring in awareness and share the benefits all the way to the grassroot level.

Lastly, Dr. Bhat concluded his discussion by talking about the activities the IFS officers could do to ensure for the awareness to be spread to the indigenous communities. Spreading knowledge of genetic resources, protection of nature and shelling out as much information as possible on the advantages of benefit sharing.





Following this, **Prof. (Dr.) Sairam Bhat** elaborated on the presentation given earlier. Professor takes a more domestic approach to handle the situation. Prof. Bhat spoke about public trust doctrine and poses a question to the participants about its essence. A response in the affirmative from the participant, highlights the custodian duty of the state to act like a trustee and protect the common properties. In this context, he highlighted how the governments should ensure for equitable management and sustainable

maintenance of the same.

The Reliance case was discussed to throw light on how natural gas was discovered in the Godavari River basin and highlighted the distribution of the resources to the people. The 2G spectrum case also was highlighted which talked about the first come first serve policy over acquiring the spectrum, the court in this case also talked about air waves, electric waves belong to the people. Professor goes on to talk about auctions being a way of promoting transparency and accountability, which would help protect the resources and helps to benefit everyone without any prejudice.

The story of Kani Tribes was brought to light and discussed by professor. The intellectual property rights of the benefits derived from the marketed aspect of Jeevani. The knowledge associated with the bio resource must belong to the local communities. Dr. Bhat spoke how about access and benefit sharing is directly related to the idea of rights. The responsibility of the community and the people is emphasised. With the same Kani tribe case, professor brings in Section 6 of the Biological Diversity Act, which talks about imposing specific rights with respect to intellectual property rights and the benefits of the same should go to the entire community. The Nagoya Protocol was highlighted to discuss the aspect of access and benefit sharing of the genetic resources, where the benefits would go to the community, if not would go to the state.

Lastly, Dr. Bhat gave recap of the previous day's events, where the role of the forest officers under the under Section 61. The forest officers would be able to invoke this particular provision to book violations with respect to biodiversity resources. He goes on to also bring to light the availability of right for the citizens to also take cognisance of such violations, which is mentioned under Section 61(b) of the same legislation. The same concept was also mentioned under Section 19 of the Environment Protection Act. He highlights this to be a concept called as "Citizen Sue Provision" where there would be a responsibility on the citizens to sue for harm caused to the environment. The only point of difference which professor highlights is that, any person can take cognisance of the offence under the provision of the Environment Protection Act, but under the Biological Diversity Act, only benefit claimers are to take cognisance on the

same. All of these add on to the idea of citizens participating in the protection of the natural resources and environment.

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### Session 5: Problem Solving Exercise

**Mr. Raghav Parthasarathy, Teaching Associate, CEERA-NLSIU**

**Mr. Vikas Gahlot, Teaching Associate, CEERA-NLSIU**



This session was a problem-solving session lead by **Mr. Raghav Parthasarathy and Mr. Vikas Gahlot**, Teaching Associates, National Law School of India University. The aim of this session was to explain the officers what forest law says with the help of case laws. The session was more of a problem solving exercise in which a hypothetical problem was presented before the officers and they had to solve with the assistance of the panel.

In the beginning the Mr. Raghav explained the facts of the hypothetical problem which were:-

"*Madhuca Longifolia*" or popularly known as Mahua flowers from the butternut tree are said to possess medicinal value for their anthelmintic and phlegm relieving properties. These flowers are largely grown in central India across districts such as Madhya Pradesh, Orissa and Jharkhand. The Chattia Tribe of Dhenkanala District in Orissa have been using these flowers for their medicinal properties, for hundreds of years. The Joint Forest Management Committee of Dhenkanala has played a crucial role in protecting forest resources in that district.

"Jyothi Enterprises" is a business undertaking engaged in the manufacturing of ayurvedic medicines in India. It is a business enterprise which is a commercial undertaking under 'Jyothi Udyog Trust' which is a Trust registered under the Registration Act, 1908 of India.

In March of 2019, Jyothi Enterprises approached the Joint Forest Management Committee (JFMC) of Dhenkanala District to purchase 200 kilograms of Mahua Flowers as raw ingredients for the manufacture of their medicines. These flowers, which are categorised as



biological resources, were purchased without the prior intimation given to the Orissa State Biodiversity Board

In June 2019, the Orissa State Biodiversity Board issued a notice to Jyothi Enterprises stating that it was obligated to intimate the Board regarding its access to Mahua Flowers, and further raised a demand to pay fair and equitable benefit sharing (FEBS) fee for utilising the Mahua Flowers in its manufacturing processes. The Board also stated that Jyothi enterprises was obligated to pay a certain sum of money to the JFMC of the Dhenkanala as part of its benefit sharing obligations.

In response to the notice issued by the Board, Jyothi Enterprises refused to pay the FEBS fee on two grounds:

1. First, it stated that the Orissa State Biodiversity Board did not have any authority to demand for FEBS Fee. It claimed that only the National Biodiversity Authority can make a demand for FEBS with respect to entities not registered in India. Since Jyothi enterprises is an Indian entity, it is not required to pay FEBS fee.
2. Second, Jyothi Enterprises claimed that it does not owe any money to JFMC of Dhenkanala. As it did not enter into any negotiation or a contract to share any benefit sharing fee, it is not obligated to pay any money to the JFMC

After explaining the facts of the problem Mr. Vikas discussed the issues concerned with the problem which were:-

1. Can the State Bio-Diversity board raise a demand of fair and equitable sharing of benefits?
2. Whether the Joint Management Committee can enter into an agreement to sell biological resources without prior intimation of the State Bio-Diversity Board?
3. Whether Jyothi Enterprises have to pay a sum of money to Joint Forest Management Committee as part of benefit sharing obligation? If yes, then how much should be the amount?
4. Should the Joint Forest Management Committee be registered under the Societies Registration Act to make a claim for benefit sharing fee?

To answer the issue's both panellists invited opinions of the participants on the same. Many of the officers very enthusiastically gave their replies and expressed their thinking about the issues presented. Then Mr. Raghav and Mr. Vikas to answer the solution of first issue referred to of the National Biological Diversity Act and its various provisions, firstly light was put on the definition of fair and equitable benefit sharing which means sharing of benefits as determined by National Biodiversity Authority under Section 21.

Section 21 talks about Determination of Equitable benefit sharing by National Biodiversity Authority, hence Mr. Vikas and Mr Raghav discussed the same with great detail. After this Section 3 of the Act was discussed which restricts certain persons from undertaking the Biodiversity related activities without prior approval from National Biodiversity Authority.

There persons included a non-citizen of India, a non-resident of India, a body corporate, association or organisation not incorporated or registered in India, or incorporate and registered in India but has any non-Indian participation in its share capital or management.

After this the Section 19 and section 20 of the Act was explained in detail that is how approval by National Biodiversity Authority is granted for undertaking certain activities and how transfer of biological resource and knowledge takes. Following this, Section 7 of the Act was discussed which stated that prior-intimation must be given to State Bio-Diversity Board for obtaining biological resource for certain purposes. 23 was discussed which specifies the functions and scope of the State Biodiversity Act was discussed. Further Section 24 of the Act to throw light on the powers of the State Biodiversity Boards in restricting certain activities violating the objectives of conservation.

Further Mr Raghav and Mr Vikas discussed about the JFMC and issues concerned with it in the problem, they stated JFMC is not exactly a statutory body, but that created under a policy. They are vested with certain powers and functions that JPMC has been granted. So, when that being the scenario. JFMC do not enter into any kind of benefit sharing agreement, but at the same time, the statutory body, that is the state biodiversity board, as well as the National Biodiversity Authority are the statutory authorities which are, by statute, they are bound to collect benefit sharing and are also entitled to do it. So, irrespective of whether a person has entered into a benefit sharing agreement with the JFMC.

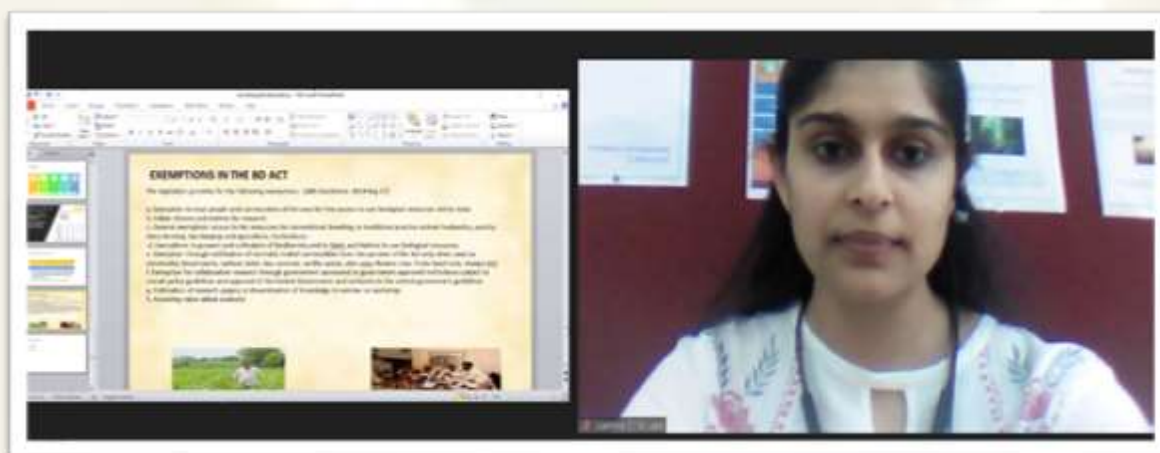
Proceeding this the case of Divya Pharmacy Versus Union of India and Others was discussed and the session was concluded.

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### Day 3: 25<sup>th</sup> August, 2021

#### Session 1: Case Study: Conservationist and Wildlife Protection Act

Ms. Lianne D'Souza, Research Fellow, CEERA-NLSIU



The Session by **Ms. Lianne and Dr. Sairam Bhat** was an interactive one. The session was discussed in context of appointment of officers and the role of interpretation of the law their

appointments. In this context, the meaning of the term ‘forest officer’ and the law in support of the same was discussed.

Proceeding this, Ms. D’Souza gave a few examples in light of the Wildlife Protection Act, 1972. Under 5A of the Act, the central government is required to constitute a National Board for wildlife, which shall consist of 10 persons nominated by the central government including persons who are conservationists, environmentalists and ecologists. Laying emphasis on these three terms, Ms. D’Souza highlighted the scope of ambiguity and subjectivity in the appointment of such members of various statutory bodies.

In similar contexts, the appointment of Chairperson of the Pollution Control Boards was deliberated upon. Under Section 4 of the water Act, 1974, the chairman should be a person having specialized knowledge and practical experience in matters relating to environment, or an administering administering institutions dealing with the matters, of course. The terms special knowledge and practical experience is to be noted and should be related to subjective definitions of conservationist, environmentalist and ecologist. Hence to deal with this the courts have elaborated in case of Binay Kumar Sinha versus State of Jharkhand.

Following this, Ms. D’Souza steered the discussion to the point of whether the National Green Tribunal has the power to decide matters pertaining to the appointment of members of the Pollution Control Boards and other statutory bodies. By virtue of section 14, the NGT has the power to decide, civil disputes on a substantive matter of law, but considering the fact whether the appointment of a chairman of Members section, or any other member of substantive dispute or not, was answered in the negative by the Supreme Court of India on the grounds that, this appointment is not a substantive matter of law, it is not a dispute relating to some substantive matter. Therefore, it cannot be decided by the NGT, it has to be decided by the high courts under 226 and 227 is of supervisory jurisdiction.

Thus, in conclusion, this session threw light on the legal nuances of appointment of officers to various statutory body and the remedies available under the law for improper appointments.

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## Session 2: Guidelines on Access and Benefit Sharing: Case Studies

**Prof. (Dr.) Sairam Bhat, Professor of Law & Coordinator, CEERA-NLSIU**

Through this panel discussion, **Dr. Sairam Bhat** elaborated the provisions of the Biological Diversity Act, 2002 and highlights some of the shortcomings in order to promote the concept of access and benefit sharing.



Dr. Bhat then discussed about Section 3 and Section 7 of the Biological Diversity Act, 2002. Section 3, gives authority to the National Biodiversity Authority (NBA) to grant prior approval for commercialization of biological resources present in India by foreign entities. While Section 7 talks about the power possessed by the State Biodiversity Board (SBB) to grant prior approval for commercialization of biological resources present in India by Indian entities. While research can be conducted by Indian nationals without any need for permission.

An example of Monsanto and BT Brinjal was given by . He explained this particular example, so to highlight the aspect of commercialization violating the biological resources present. Section 4 was then elaborated to explain the idea behind prior approval. Under Section 4 of the Biological Diversity Act, the research object or the research result must require prior permission from the NBA to be transferred to foreign countries. This ensures that the biological resource and the knowledge of the same would remain in India and would prevent further acts of biopiracy. As it also ensures there is equitable benefit sharing of the resources to the citizens of the country.

Dr. Bhat then explained the procedural requirements under Form 1, which is to be filed to the NBA in order to avail approval from the authority. The reason for these commercial utilizations to be regulated under this act is to bring in a system to liability, due to which the benefits derived by the companies would also be shared with the community. Therefore, body-corporates in India who specialize in commercializing biological resources would be under the jurisdiction of the legislation. Prof. Bhat then goes on to ponder on the process of approval granting by the authority. He highlighted the aspect of approval being granted in the form of agreements between the industries and NBA. This is done to ensure, if there is any delay or denial in the conduction of duties by any of the parties, it would lead to breach of the contract ensuring liability would be imposed.

But the flaw, which Dr. Bhat highlighted in the system, is the inclusion of the “Arbitration Clause” in the agreement. This arbitration clause discussed the obligation to go through an alternate dispute resolution mechanism, prior to the dispute reaching the court. This clause is



further strengthened by the existence of Section 8 of the Arbitration and Conciliation Act, 1996. The problem with the same, as Prof. Bhat highlighted, are the jurisdictional issues, as the Biological Diversity Act grants jurisdiction to the National Green Tribunal for dispute resolution but the agreement grants jurisdiction to the such alternate dispute resolution mechanisms.

Dr. Bhat then emphasised on the exemptions the Biological Diversity Act, 2002. He explains the main objective of this Act is to promote and sustain research work with respect to biological resources in the country and to ensure bio-piracy is prohibited. This aspect also calls in for a “Biodiversity Management Committee” which ensure for proper recording and documentation of the activities which are being conducted. As this can act as evidence whenever needed or can just be progress events recorded for development purposes. Dr. Bhat highlighted the necessity for local people, the indigenous community to lend a hand and help in documentation of such unique resources. Hence, ensuring for intergenerational transfer of information.

Lastly, Dr. Bhat discussed about the implementational issue with respect to the provisions of the legislation, that calls for a huge requirement of workforce and proper infrastructure to manage the same. Also highlighting the problems with the arbitration clause in the agreement, as arbitration or alternate dispute resolution mechanisms can only resolve commercial disputes but not direct the party to adhere to the decision. The binding factor of the arbitral award is what would be problematic.

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### **Session 3: Biosafety, Forest, and Benefit Sharing**

**Prof. Dr. M. K. Ramesh, Professor of Law, NLSIU**

**Ms. Vidya Ann Jacob, Assistant Professor of Law, Christ University**



**Prof. (Dr.) M. K. Ramesh**, commenced the 3<sup>rd</sup> Session of Day 3 with a preliminary introduction of the co-host for this session, Prof. Vidya Ann Jacob, Professor of Law, Christ University. Discussing the approach to be taken, Prof. Ramesh asserted that we must visualize and recognize the forest ecosystem as a place of service. The forest ecosystem is pivotal to the economy as it offers a wide variety of services, basic needs like water and food,

and supports commercial interest. Prof. Ramesh also emphasized the need for ‘benefit sharing’ to be perceived as complementary and hand-in-hand with the forest ecosystem. Talking about the aegis of Benefit-sharing, Prof. Ramesh held that ‘entitlement, stakeholder-ship, and the title’ over forest resource is a populist and capitalist term; as the forest was an open-access

resource since ancient times. Tracing the genesis of forest ecosystem development and research, Prof. Ramesh cited the Millennium Ecosystem Assessment Report, 2005 that acts as a vantage point to the true 'definition' of ecosystems. Furthermore, this was the first-ever Global Assessment Report on Biodiversity and Ecosystem Services. It laid down the initial classification of forms of ecosystem services and protagonized the development and conservation of the forest ecosystem. Discussing the benefits reaped from the forest services, Prof. Ramesh listed a multitude of the same like provision of food and water, regulating the climate and disease morbidity, facilitating cultural and recreational interests, supporting nutrients cycle, and acting as carbon storage, etc. After the following discussion, Prof. Ramesh briefly discussed the primary issue concerning forest ecosystems and benefit-sharing. The issue of balancing the sharing of benefits while accommodating the forest services, whilst, not compromising the sustainability of the forest ecosystem has yet to be addressed. Prof. Ramesh re-emphasised that the sustainability and preservation of forest ecosystems are non-negotiable and inalienable. Following this discourse, Prof. Ramesh moved the discussion towards the History of forest ecosystem preservation and legal standpoint on claim over forest services. In pursuance of an interactive dialogue, participant, Ms. Meera Iyer made the point of shift the ideology of forests being revered to forests being perceived as 'revenue hubs' amidst colonial rule. Concurring with this Shift of ideology, Prof. Ramesh moves the dialogue towards analyzing the need for unambiguous legal backing for supporting claims on sharing benefits of forest ecosystems to truly display the 'stake' and 'claim' aspects. In this regard, Prof. Ramesh cites Section 80 of the Indian Forest Act, 1927 that provided for limited scope on the communitarian management and 'stake', 'claim', and 'benefit sharer' of the forest ecosystem. Prof. Ramesh gave a chronological outlook on this development and cites Schedule 4 and 5 of the Indian Constitution that is prevalent in the contemporary context vis-à-vis autonomy of communitarian interests and management of resources. Prof. Ramesh later gave the example of the Arabari experiment initiated in West Bengal and its role in crystallizing the idea of cognizance of encroachment and spirit of benefit sharing. Prof. Ramesh concluded his discourse on the same by arguing how conservation has evolved into a caveat and the need for cognizance of encroachment in the veil of 'development'. Providing his suggestions and policy reforms required, Prof. Ramesh talks about the essence of inculcating initiatives and projects into rules and ordinances to give legal support and stability. Prof. Ramesh also highlighted the need to develop Section 3 of the Forest Rights Act, 2006 to amplify and adequately enforce the right of access to biodiversity and community right to the intellectual property of traditional knowledge related to biodiversity and cultural diversity. Lastly, Prof. Ramesh discussed how the forest provisions could have achieved their objectives if not for political gains, 3<sup>rd</sup> parties playing for spoils, economic development designs, etc. Following this, Prof. Vidya Ann Jacob took over the presentation by discussing biosafety.

**Prof. Vidya Ann Jacob** began her comprehensive and knowledgeable presentation by



initiating and introducing the term biosafety and broadly discussing the Cartagena protocol. Prof. Jacob highlighted the need to recognize regulating modern biotechnology as its development can have adverse consequences. In this regard, Prof. Jacob took the example of Genetically Modified Organisms (GMOs) and explains the safety issues regarding the same, i.e., they can potentially poison the soil, cause genetic pollution, health implications, and spread antibiotic-resistant genes.

Moving the discourse towards the Cartagena Protocol, Prof. Jacob introduces it as a legally binding instrument that would sustain trade in products of modern biotechnology while simultaneously protecting the environment and biodiversity. Providing preliminary background, Prof. Jacob discussed the meaning of LMO's or Living Modified Organisms. Following this discourse, Prof. Jacob provides insight on the 5 pillars of the Cartagena Protocol and its important features, which are the following:

1. **Advance Information Agreement Procedure:** Prof. Jacob explains the AIA as a need for the manufacturer of LMO to take due permission from the importing country for transboundary movement of LMO's.
2. **Biosafety Cleaning House:** Prof. Jacob emphasizes the importance of the BCH as it is a comprehensive database that holds the knowledge and R&D for each LMO such that it assists the parties to better comply with their obligations under the protocol and foster scientific, technical, and legal accessibility.
3. **Risk Assessment Committee:** Prof. Jacob explains how a risk assessment committee is set by the convention to evaluate the effectiveness every 5 years.
4. **Risk Management:** Prof. Jacob explains how the protocol adopts a 'precautionary principle' such that mitigation becomes primary in ensuring the prevention of any 'bio-disaster'.
5. **Safe Handling, Transit, and Identification:** As these Biologically modified organisms can impose serious implications to the environment, Prof. Jacob emphasis the need for safe handling, adequate infrastructure for transit and storage, and lastly, mandatory labeling and access in the BCH.

Following this discussion, Prof. Jacob enlightened the participants with the various international frameworks and regulatory bodies that govern biosafety, like, UN Food and Agricultural Organization, World Health Organization (WHO), Convention on Biological



Diversity, etc. Prof. Jacob also listed the lapses in the Cartagena protocol; however, argues that these lapses do not have severe implications as the voids are filled by other international frameworks. Some of the faults mentioned were: limited jurisdiction over non-living products derived from genetically modified organisms, lack of control over commodities that disrupt trade and good access, and LMO's of consumer labeling. Prof. Jacob discussed the various national frameworks established for governing GMOs and their relationship with the forest ecosystem. In this regard, Prof. Jacob takes the example of China adopting the poplar trees and the implications of that approval in 2002. Furthermore, Prof. Jacob discussed the myriad Biosafety rules and decision-making structure that has been enforced, which are, Institutional Biosafety Committee, Review Committee on Genetic Manipulation, State Biotechnology Coordination Committee, Monitoring cum evaluation committee, etc. Lastly, to understand the effectiveness of regulating biosafety in India; Prof. Jacob discussed the BT cotton case of Monsanto Technology LLC & Ors. V. Nuziveedu Seeds Ltd. & Ors. to end her insightful discussion on biosafety.

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#### **Session 4: Bio Resources, Value Added Products and Requirement for IPR Protection**

**Mr. Rohith Kamath, Consultant, CEERA-NLSIU**



This session was presented by **Mr. Rohith Kamath**, Consultant at CEERA, NLSIU. Mr. Kamath spoke about invasive species of plants and the need and way to avoid these species. He further stated that curbing invasive species ensures bio safety and prevents bio-piracy.

The case of Monsanto in 1960s was referred to further illustrate. Monsanto came up with Bt-cotton a variant which was immune to this cotton disease and this seeds gained a lot of popularity. Mr. Kamath stated that the case of Monsanto came under the IP rights and was never brought under the ambit of biological resources. The primary issue was that once the seeds were sold, the farmer was mandated to not reuse any seeds produced from the harvesting of the crops. This restriction brought Monsanto into light. The second issue was with regards to Monsanto acquiring patent rights over BT-Brinjal and BT-wheat. The Andhra Pradesh Biodiversity Board raised this claim that Monsanto had committed a theft of biological resource which is homegrown within Andhra Pradesh, hence claiming that this was a case of bio-piracy. The National Biodiversity Authority filed a criminal complaint against Maniko Monsanto, Maharashtra branch which was responsible for transferring these



resources back to the parent entity in US. Mr. Kamath then provided the following important definitions,

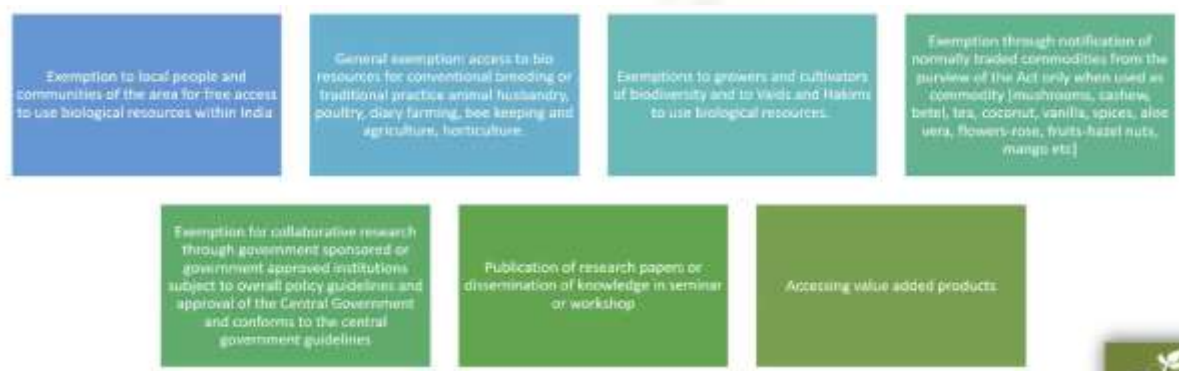
- Biological Resources: laid down in Section 2(c) states that, “Plants, animals and microorganisms or parts three of, their genetic material and by-products (excluding value added products) with actual or potential use or value, but does not include human genetic material”;
- Value Added products: laid down in section 2(p) states that, “products which may contain portions or extracts of plants and animals in unrecognisable and physically inseparable form.”
- Commercial Utilisation: laid down in Section 2(f) which states that, “end uses of biological resources for commercial utilisation such as drugs, industrial enzymes, food flavours, fragrance, cosmetics, emulsifiers, oleoresins, colours, extracts, and genes used for improving crops and livestock through genetic intervention, but does not include conventional breeding or traditional practices in use in any agriculture, horticulture, poultry, dairy farming, animal husbandry or bee keeping.”
- Resources: defined under section 2(m) lays down that, “study or systematic investigation of any biological resource or technological application, that uses biological systems, living organisms or derivatives thereof to make or modify products or processes for any use.”
- Bio-Survey and Bio utilisation: defined in section 2(d) as, “survey or collection of species, subspecies, genes, components and extracts of biological resource for any purpose and includes characterisation, inventories at ion and bioassay.”

The example of Coconut oil was taken by Mr. Kamath to explain what the distinction between biological resource and value added products. Here since coconut cannot be extracted from coconut oil, one can term it as a value added product. Through these definitions, the primary question Mr. Kamath puts forth is that, “whether a person has to approach the biodiversity authorities for access of biological resources or not?” The answer to this lies from the enlisted definitions. He stated that if an individual uses green money (foreigner), they would be mandated to approach the National biodiversity board. Whereas if an Indian wishes to access biological resource for commercial utilisation, then they can approach the state biodiversity board.

The difference between conventional plant breeding and genetic engineering technologies was explored. When RNA from a different species is inserted into another species then it amounts to genetic engineering technology and this would fall under the Biological Diversity Act.

There was an interactive q/a questions with the officers, wherein it was concluded that an Indian researcher of bio-resources and Traditional knowledge is exempted from the Act. If one uses traditional knowledge for commercial use, they still remain exempted given that they are Indians and would fall under the Act if they utilise biological resources for commercial utilisation. In case of a non-Indian using biological resources or associated knowledge then in those circumstance, one needs to make an application to the NBA. There are a few categorise of users which are commercial in nature and are excluded, such as Ved or a hakim (Indian) are exempted as well.

Further the legislation provides for the following exemptions, as laid out in ABS Guidelines 2014:



The session concluded with taking various examples and understanding if the same is covered or exempted from the stated.

## Day 4: 26<sup>th</sup> August, 2021

### Session 1: Presentation by Officers

The Fourth Session was a session in which all the officers participating in the training was required to present a topic allotted to them in groups, in this session a total of 4 groups presented.

The 1<sup>st</sup> Group comprised of officers Alok Tiwari, L.C. Bandana, Pusazhule Mekro, Vijay M. Godbole and their topic was “Role of Forest Officers in Implementing Sustainable Goals”. To commence with the presentation, the Sustainable Development Goals were discussed, in light of the 2030 Agenda for Sustainable Development. In discussing the 17 goals, the officers stated that there is a set of interlinked responsibilities for environmental protection, and as well as human development. Following this, they proceeded to discuss the concept of sustainability from a three-pronged approach - economic and socio-cultural well-being. In terms of the role of the forest sector, the importance and relevance of Goal 15 to protect, restore and promote sustainable use of terrestrial ecosystems and sustainably managed forests was emphasised. Further, the importance of combating desertification was also discussed.

After this, the forest inventions and their relation to sustainable development was discussed by Mr. Alok Tiwari. He threw light on the various avenues that the forest department resorts to for the sustainable utilization of forest resources. In this context, he threw light on increasing the extent to forest, and tree cover through all plantation efforts, afforestation etc, with the long-term goal of building environmental and ecological stability. After this major national initiative and programs were discussed in detail such as MNREGA Scheme, National Rural and Urban Livelihood Mission, National Food Security Mission. The purpose of discussing these were to actually show how these initiatives and scheme align with SDG's.

Further the group discussed about the challenges faced by them in achieving SDG's which include loss of forest land day by day to industries, quality of forest health was deteriorating, budget shortage, lack of political will and commitment, acute shortage of frontline staff & officers in comparison to the increased work load.

After this, the Second Group, which comprised of Anil Kumar Rai, Mamta Priyadarshi and Raju Agasimani, presented on the topic "Coordination between Forest Department and Indigenous Communities". Ms. Priyadarshi, began the presentation by giving a brief overview of the role of indigenous communities in protecting natural resources and the need to formalize their historical and traditional dependence on the common forest resources through the formation of the user unit and crafting of local institutions. In the same context but at a higher level higher, when problems of indigenous communities are analysed, the issues related are protection and boundary related. In context of issues relating to forest range or at the Taluka level, the challenges usually pertain to conflict management.

Following this, Ms. Priya summed up all the solutions to issues concerned in 5 categories i.e. (a) the Forest Department needs to strengthen the communal territorial rights, (b) compensating indigenous, and tribal communities for environmental services, (c) facilitating community forest management, (d) revitalizing the traditional cultures and knowledge, and (e) strengthening territorial governance and indigenous and tribal organizations. Then Mr. Anil Kumar Rai added to the points of Ms. Priya stating that the forest department has an integral role to play in terms of the management of indigenous communities. However, there are several issues and bottlenecks that go beyond the Forest Rights Act. It is therefore pertinent for the respective state governments to devise proper institutional mechanisms that will allow the forest department and the indigenous communities to work hand in hand.

The Third Group, which comprised of Raman Sharma, DT Vasadeva and Meera Iyer, was allotted the topic of "Social Forestry in India: Balancing Community Needs in Protecting Biodiversity"

Ms. Meera began the presentation by highlighting the meaning of social forestry and the historical backing to social forestry practices in India. She elucidated several examples of social forestry in India in the ancient times and shared her experience in social forestry. Following this, Mr. Raman Sharma started with the challenges which the forest department faces in social forestry. In this regard, he threw light on practical issues such as community participation, lack of coordination, improper dissemination of information etc.

The fourth group comprised of Chaturbhuj Behera, S. Srikanth Reddy, R. Padmawathe and N.S. Ravindra Kumar and the topic allotted to them was "Benefit Sharing of Forest Resources: Success or Failure?."

Commencing the presentation, Mr. Chaturbuj Behra highlighted the concept through real life examples, explaining how forest resources are just not limited to timber and other wooden products but it much more than that, and how one is benefited from the same and how they are

utilized from the present legislations. Further, a brief introduction to the historical aspect of the topic was discussed.

Following this, Mr. S. Srikanth Reddy discussed five laws, regarding the same which included benefit sharing in Indian Forest Act, 1927, wildlife laws, ROFR Act, Bio-Diversity Act and PESA. He stated that our forests also have contributed a lot to the benefit sharing of the forest resources especially in terms of land, and also other community rights, and then the Biological Diversity Act goes about making it easier for the benefit sharing of the forest resources. He explained how the above-mentioned acts are landmark Acts, which have paved the way for the benefit sharing.

Further Ms. Padmawathe R discussed about the failures of benefit sharing. She highlighted certain points leading to the failure in the benefit sharing mechanism. She explained the monetary and non-monetary benefits of benefit sharing and elucidated how the business sector is progressing at the cost of the fragile biodiversity. On a concluding note, Ms. Padmawathe discussed the way forward by stating that there should be sharing a percentage of market gains with the community and introducing the concept of rent, innovations to reduce the cost of processing, consortiums of users and their rights should be defined, promoting private party and cutting on free riders, defining criteria for valuation.

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## **Session 2: PBR and BMC: Decentralized governance in Environment**

**Prof. (Dr.) M. K. Ramesh, Professor of Law, NLSIU**

**Dr. Suhas Nimbalkar, Partner & Consultant – IP & Regulatory Affairs, Eitimo Ventures**

In this session, **Prof. M. K. Ramesh** began by putting for the question of what one makes of BMC and PBR as experimental decentralized governance; does environmental governance give template for decentralized governance for other system of governance; how does it compare with constitutional instruments? He further posed the question pertaining to whether the law really provides for a model decentralized governance.

He stated that, “resources and knowledge concerning life and life forms their impacts on life and environment require engagement, involvement, concern, and care of the local community.” This is the basic idea for the purpose of conservation. This is very important since they bring in the much-needed native wisdom, and they are the natural custodians, actors, and caretakers. The essential idea behind the third tier of governance, the BMC draws from this kind of inspiration to bring to light the true spirit of democracy. Under the constitutional scheme, democracy treats people as participants, partners, and stakeholders in the decision-making process. The fundamental duties rested on the citizens furthers makes the citizens environmental stewards. It visualizes the natural resources as commons and the government as a public trusty, as laid through the 42<sup>nd</sup> amendment of the constitution. This has been further



elaborated by the 73 and the 74<sup>th</sup> amendment of the constitution. Through all these provisions and amendments, Prof. Ramesh stated that the government assumes a parental role protective of communitarian interest and much of it remains with the government initiatives and efforts like legal aid to the poor.

He moved on to investigate the biodiversity law in light of this democratic framework in India. He stated that the National Biodiversity Authority and the state biodiversity board take democratic roots deeper than under the constitution. This is clear in the third tier, which is the biodiversity management committee. He referred to functions of the biodiversity committee, which includes collecting, collating, documentation, maintaining and total custody & care of local matters and information, practices, and approaches on the subject. He draws comparison between the biodiversity committee and the other institutions even those under the constitutional scheme like the Gram Sabha, ward committees. Since the latter lacks legal status and their impact is very limited. Their contribution is very limited with respect to laws of panchayat raj and urban development. Especially when one compares these bodies to biodiversity committee, the latter exercises more power. Prof. Ramesh stated that currently research teams are working with governments to strengthen the urban local government, and the primary issue they suffer with is lack of financial autonomy, this isn't the case with biodiversity committee. The biodiversity committee in contrast enjoys the right to determine the use of the access fees. The local bodies such as the local panchayat constitute the BMC but once BMC is constituted it exercise fully autonomy. He further stated that the BMC chairperson is also instituted by the BMC.



Prof. Ramesh stated that BMC works complementary with local bodies. Further the law provides that every local body shall constitute BMC but Prof. Ramesh stated that this hasn't fully been implemented and only 20% of BMC has been instituted around the country. This lack of institution has been observed by the court as well. He concludes by stating that the deepening of democracy still largely remains on paper and needs to be considered in light of ground realities, to ensure proper implementation of the law. He

stated that the three tiers of the biodiversity authorities have failed to fully enjoy this wonderful experimental democracy and spread it wings and inculcate the very essence of biodiversity governance at the grassroots.

He concluded by reinstating that the objectives of the Act a) as far as the local resources are concerned, the native wisdom, the local communities to have a way and a say and to b) prevent biopiracy. The makers wished to have a national body, which can ensure bio safety and security

and prevent biopiracy and take care of intellectual property. They wished the local bodies to stray away from panchayat politics.

**Mr. Suhas Nimbalkar** continued the next leg of discussion. The need for decentralization amounts from the need for more participation from local actors and for more democratic process. Through the transfer of power to local bodies the decision making is closer to people. Further it envisions to increase the decision making based on local knowledge and practices. He argued that specifically for environment, one needs a decentralized structure, since



environment is very localized and varied across locations and geographies.

He reiterated the three-tier structure, with the National Biodiversity Authority (“NBA”) at the top, the State Biodiversity board (“SBB”) at the middle and the last tier is the

biodiversity management committee. The first two are regulator, advisory and facilitative in nature while the last tier is supportive, facilitative and undertakes documentation. He spoke about the different stakeholders involved which include:

- Providers of bio-resources: BMC
- Users of the bio-resources: MNCs, National companies and Researchers.
- Other actors such as legal professionals and industrial associations.
- Further departments such as the Line department, forest department, custom department and patent office also work with SBB/NBA.

He then introduced the concept of the People’s biodiversity register (“PBR”) which is an empowering tool with the local biodiversity management committee. The concept of PBR revolves around the fact that local communities are the insiders of the ecosystem and their role in the process of ecosystem conservation is of great importance. Hence, through PBR these local communities are included in the decision-making process. PBR is a tool for collecting and documenting biodiversity data and through training the local communities will be an principal participant in this process. Mr. Nimbalkar stated that PBR is the first step taken to bridge the gap between IP rights of local people and benefits derived from genetic resources and associated traditional knowledge. Further enabling them to share those benefits and also empower the local communities.

Mr. Nimbalkar stated that PBR is very inclusive and decentralized, and people from all age groups can contribute to the PBR. The primary motivation to establish PBR is to make local communities aware of their rights over natural resources and the rising need to protect them.

Covering the issue of the status of PBR, he cited the case of Chandrabhal Singh v. Union of India and the order of NGT resulting from it mandated all states and union territories to ensure 100% of constitution of BMCs by January 2020. In the absence of which, they would be imposed with a heavy penalty.

Mr. Nimbalkar then introduced newer tools which is utilised due to the change in the manner in which the society is governed. He spoke about the innovations in the digital domain and the way it has shaped the daily process and interactions of individuals, educational institutions, companies and governmental organisations. One such newer tool which Mr. Nimbalkar introduced to the officers, was of Blockchain and Digital Ledger technology (“DLT”). DLT also known as a Swiss multi-tool, works in providing solutions for digital identity, data ownership, privacy and more decentralised decision making. He cites the ‘Zwitter and Hazenberg, 2020’ report which has stated that through this decentralised network governance, there would be dynamic power relations and the function would be fluid.

In the Indian context, with respect to the digital era, Mr. Nimbalkar introduces, e-PBRs. He stated that the PBR process at present lacks,

- uniformity in entire life cycle, from Data collection to data dissemination,
- Ease of operations,
- Unique identifiers for various components,
- Data security,
- Wide participation,
- Recognition across the society.

These issues are tackled with the introduction of e-PBRs. Additionally, another important issue it tackles is the sheer diversity of languages within the country and difference in people and operating methods. Through e-PBRs there would be more harmonious data sharing between states. Further current PBR lacks control over the quality and the periodic review and revisions of PBR formats has an significant amount of cost. The implementation of ePBRs will be under a national framework titled, National initiative for sustained assessment of resource governance (NISARG). NISARG Bharat aims to establish a national framework for ePBRs that will simplify the process and encourage participation of citizens and experts. The benefits of ePBR care increased awareness about local biodiversity, sustainable use of bio-resources and protection of ecosystems, effective planning and management of landscapes, geo-scapes and increased sensitisation and lastly it aims to demonstrate country’s rich natural capital in an international forum.

Mr. Nimbalkar ends his session by stating that the empowering tools are now being polished and there is an adaptation to new technology and socio-economic changes. He also questioned the financing mechanism and highlights the fallbacks of the discussed model which includes a sense of community participation and lack of trust in communities to manage their own resources. On a concluding note, Mr. Nimbalkar ended with an observation that the current practice depicts a different picture, one of recentralisation of power and resources to the state.



### Session 3: In Letter and Spirit: Need for Integration of Laws for a Fairer Deal to Folk Healing in India

**Dr. M. D. Subash Chandran, Consultant scientist for the Centre of Ecological Sciences, IISc Bengaluru**



Dr. M. D. Subash Chandran, Consultant scientist for the Centre of Ecological Sciences, IISc Bengaluru commenced the 3rd Session of Day 4 of the Training Course on Benefit Sharing from forest ecosystem services: Law, policy, and administration for IFS Officers. The day 4 session organized on 26th August 2021 primarily dealt with the need for integrating laws to solve the issue of folk healing in India and protect and conserve these traditional practices and knowledge. Dr Chandran commenced his presentation by introducing the term ‘benefit claimers’; who are these benefit claimers? Are they getting due recognition? What is the state offering? And more questions along these lines were answered. Dr Chandran continued to elaborate on the same by elucidating the title choice for his presentation, “Living in the Shadows of Legitimacy”. Dr Chandran advanced the discourse by analyzing the problematic nature of section 7 of the Biodiversity Act, 2002 in the context of these ‘benefit claimers’ like the Vaidyas and Hakims. Elucidating the section, Dr Chandran emphasized the need for individuals at the grass-root level to accrue benefits from the Act and not be penalized for the same. In this regard, Dr Chandran took the example of Anantmool or Hemidesmus Indicus a popular root trade which is cultivated diversely across India by the Gonds, Santhals, Irulas, etc. Anantmool is an ancient folk healing medicine that can cure pneumonia, respiratory diseases, and even skin ailments like leukoderma. However, this ‘root’ has been now privatized and the traditional producers receive no benefit for their traditional knowledge. Dr Chandran highlights the twin-fold objective of protecting these folk healing methods from exploitation whilst also ensuring the practice’s conservation. Dr Chandran continued the discourse on folk healing methods by discussing the importance of the role of local communities and postulates that decentralized, community-based conservation of forest resources can help preserve the special identity and prevent felling, contract harvesting, cultural alterations, and encroachment. While discussing this aspect, Dr Chandran giving the example of PepsiCo and Bio India Biologicals Company



suggests the need for a ‘cap’ in revenue on resource exploiting companies. Furthermore, Dr Chandran also discussed the fallacies in the top-down approach taken by the administration concerning (ABS) Access and Benefit Sharing. Critiquing the Guidelines on Access to Biological Resource and Associated Knowledge and Benefits Sharing Regulation, 2014, Dr Chandran discussed the component slabs based on the annual gross sale of these products. Dr Chandran based on 2017 data observes that except Uttarakhand no other state has reported sharing Benefits towards the (BMC’s) Biodiversity Management Committee.

Following this, Dr Chandran comprehensively discussed the emerging concerns of the ABS implementation in India:

1. Insignificant data on the geographical origin of biological resources accessed by manufacturers, thus, difficulty in distributing grants to state BMC’s.
2. The difficulty of the manufacturer in tracking state-at-point of purchase of biomaterials, i.e., logistical problem in deciding the territorial jurisdiction.
3. Voids in scenarios when there is a possibility of biomaterials being grown in multiple stated.
4. Fallacious top-down approach and need for a bottom-top approach from the grassroots, i.e., beginning from the BMC’s at the Gram Sabha.

Dr Chandran stated the crux of the problem to be BMC being excluded from accounting despite being a statutory body. In this regard, Dr Chandran takes the example of Garcina Gummigutta, which has been widely exploited as an anti-obesity agent and accrued a high collection of NTFP, however, state governments have bypassed BMC to accrue complete benefits. Lastly, Dr. Chandran urged for the recognition of fold healing systems and eradicating the ‘stereotypes’ in its practice to bring its true potential to the Indian populace.

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## Session 4: Problem Solving Exercise

**Mr. Raghav Parthasarathy, Teaching Associate, CEERA-NLSIU**

**Mr. Vikas Gahlot, Teaching Associate, CEERA-NLSIU**



Mr. Raghav Parthasarathy, Teaching Associate at NLSIU and Mr. Vikas Gahlot, Teaching Associate at NLSIU commenced the 4th session which was ‘problem solving’ session, wherein a hypothetical was presented by Mr. Parthasarathy and called for discussion from the participants. Narrating the hypothetical, Mr. Parthasarathy raised the challenges issues by the defendant party, i.e., Biodiversity Management Committee (BMC). The following was the challenges raised:

1. BMC stated that according to the report of the Forest Advisory Committee (FAC), the diversion of forest land for commercial purposes was not tenable. Furthermore, since the FAC is an expert advising body, the central government must abide by the same and not approve of the ‘mining’.
2. BMC claim ‘coal’ to be a biological resource due to the nature of its formation, therefore, the petitioners must intimate the State Biodiversity Board for its commercial utilization.
3. BMC Claims that the petitioners are liable for equitable sharing of benefits from the procurement of coal.

Following these challenges, the defendant party raised their contentions, which led to the following issues:

1. Whether the diversion of forest land for non-forest purposes was proper by law? And whether the opinion of FAC is purely advisory?
2. Whether the defendants are supposed to take prior approval from the State Biodiversity Board under the Stated, 2002?
3. Whether coal is a biological resource under the Act?

After the issues were raised, a fruitful discussion and a problem-solving session were initiated between the participants to gauge the effectiveness of the discourse and bring forth the ‘legal mind’ of the respected officers.

The participants were keen on sharing their perspectives and solving the hypothetical problem from the legal front. Ms. Padmawathe began the session by sharing insight with the 1<sup>st</sup> issue. The majority opinion on this issue was that the diversion of forest land for non-forest purposes was indeed bad law in a moral context, however, strictly legally speaking, it was permissible under Section 2(ii) of The Forest (Conservation) Act, 1980. Moving the discourse towards the opinion of FAC, the participants opinioned that through the strict reading of Section 3 of the Act, one may interpret that it is essential for the FAC to opinion. However, talking about the intricacies of law and its myriad interpretations, Mr. Parthasarathy cited the case of *Sudiep Shrivastava v. the State of Chattisgarh*, to establish the legal standing of the FAC’s opinion. The 2<sup>nd</sup> issue was taken over by the participants with the majority agreeing for the compulsory approval by the State Biodiversity Board for ‘coal mining’ under the Stated, 2002. Lastly, the discussion on whether coal is a biological resource attracted multiple different views on common layperson terms, scientific terms, the interpretation from different legislations, etc. The discussion in this regard ended by analyzing the definition of ‘biological resource’ across different legislations and highlighting the point of redundant laws, the malleability of the law, and problematic interpretations.

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**Day 5: 27<sup>th</sup> August, 2021**

**Session 1: Compensatory Afforestation**

**Ms. Lianne D’Souza, Research Fellow, CEERA-NLSIU**

**Dr. M. P. Chengappa, Assistant Professor of Law, WBNUJS**

In this session, **Ms. Lianne D’Souza** highlighted the importance of the Compensatory Afforestation Fund Act and the role it plays in preserving and conserving biological diversity. In the introductory note, a brief discussion on the meaning and importance of compensatory afforestation was conducted, to throw light on the historical development and jurisprudential backing of the CAMPA Act, 2016. Following this, Ms. D’Souza highlighted the procedure for compensatory afforestation under the Forest (Conservation) Act, 1980. It was highlighted that when a user agency under the Act of 1980 seeks to utilize forest land for any non-forest purpose, then a proposal for prior approval of Central Government under the Act must be submitted laying down the comprehensive scheme for compensatory afforestation. It was also pointed out that when such application for prior approval is made to the Central government, it is imperative that the user agency concerned must make a declaration stating that they shall bear the entire cost of afforestation. Furthermore, the money so dedicated towards afforestation efforts must be deposited in the fund allocated for compensatory afforestation. Following this, the key features of compensatory afforestation were discussed including issues pertaining to the type of land to be used for compensatory afforestation, the area where the measures may be implemented, who bears the responsibility of carrying out compensatory afforestation.

Following this, few concepts such as penal afforestation and net present value were discussed to highlight certain challenges that arise in implementing the scheme of the Compensatory Afforestation. In this regard, Ms. D’Souza highlighted the manner in which net present value is calculated and the exemptions provided in this regard. Furthermore, on a concluding note, a few case studies were discussed to understand the practical challenges and the shortcomings of the compensatory afforestation scheme in India.

Taking over the session, **Dr. M. P. Chengappa** deliberated on the legal nuances of the CAMPA Act, 2016. Commencing with the second leg of the session, Dr. Chengappa delved into the preamble of the Act and the legislative history of the Act. In this regard, he noted the importance of the judiciary’s role in the case of *T. N. Godavarman Thirumulpad v. Union of India*. He highlighted the aims and objectives of the Act, which include, (a) Establishing the National Compensatory Afforestation Fund under the Public Account of India, and a State Compensatory Afforestation Fund under the Public Account of each state, (b) Establishing the National and State Compensatory Afforestation Fund Management and Planning Authorities (CAMPA) to manage the funds, (c) Utilization of funds for afforestation, regeneration of forest ecosystem, wild life protection and infrastructure development, (d) To provide safety, security and transparency in utilization of CAMPA funds.



Following this, Prof. Chengappa gave an overview of the Act, by throwing light on the governing institutions of the Act, the procedure for utilization of funds and the basic tenets of the Act. He also mentioned a few case studies in the states of Odisha, Madhya Pradesh, Chattisgarh and Goa to highlight certain practical difficulties in implementing the Act. Following this, he highlighted certain policy considerations, drawing reference to the success stories in countries such as the Czech Republic, to bridge the gaps between the theoretical moorings of the Act and the practical challenges. On a concluding note, Prof, Chengappa, posed a few questions for consideration of the participants in recollecting some of their experiences in implementing the CAMPA Act, 2016.

## **Session 2: CEERA: Litigation Profile and Advocacy under Biological Diversity Act**

**Mr. Rohith Kamath Consultant, CEERA- NLSIU**

**Mr. Raghav Parthasarathy, Teaching Associate, NLSIU**

This session was presented by Mr. Rohith Kamath and Mr. Raghav Parthasarathy. The session primarily dealt the various offences under the Biological Diversity Act and the established process of law. Mr. Kamath stated that the primary group of individuals which fall under the Act are those who utilise biological resources for commercial utilisation. He further enlisted the four broad entities which are covered under the BDA, which includes, sole proprietor, partnership firm, limited liability of partnership and company. These entities are covered under the Act when the access biological resources for commercial utilisation. He also noted that a traditional practitioner is exempted from the same, though they manufacture medicines. Further if industries are registered within 'Ayush' entity they are exempted from the BDA.

Mr. Parthasarathy spoke about various provisions and addressed the way to issue a non-compliance notice to an offender. He stated that the classification of the nature and type of business is very essential. He lays down the various steps to be followed:

1. He referred to Form 1, which is an application for access to biological resources and associated traditional knowledge. This form takes in information of the applicant, the details and specific information about nature or access sought and the biological material and associated knowledge to be accessed. This covers all the traders and manufacturing industries of the biological resources. The applicant also has to pay the fees associated which is an amount of thousand rupees.
2. Post this, the biodiversity board intimates the applicants to get into an agreement. This is an access and benefit sharing agreement. This provides for an understanding between the manufactures and traders of biological resources and the state biodiversity board, for sharing of the benefits. The 2014 guidelines for access and benefit sharing provides for such an agreement.
3. Once the agreement is filed, the company or entities at the end of the financial year are bound to submit Form A. Form A is a self-disclosure form, which provides the entities to provide a list of resources utilised by them.



4. The entities would be needing to pay an access and benefit fees which would be determined based on the amount of resources utilised by the manufacturing or trading entities.



Mr. Parthasarathy stated that in the case if these entities fail to comply with the set regulations, then the state biodiversity board invoking the provisions of the Act can take actions against such defaulters. The Act vests

criminal powers in the hands of the state biodiversity board. He stated that the criminal prosecution of the offenders begins with a legal notice. The legal notice mentions the exact point of default. Section 23 of the Act also provides the state biodiversity board to issue directions to such defaulters. The fine prescribed may either go up to 1 lakh rupees or 2 lakh rupees but there is no imprisonment for the same. Mr. Parthasarathy referred to section 55 of the BD Act, which states that any violation of section 3,4,6 is punishable for a term up to 5 years imprisonment and fine of 10 lakh rupees. These are some violations under the ambit of the Act.

Further when it comes to suing a company for non-compliance, Mr. Kamath stated that one should prosecute only executive directors. Further he stated that one should ask for company's board resolution, to understand the exact person who is in-charge for purposes and compliance. Mr. Kamath stated that once you identify the executive director, one should file the notice against the current executive director.

Mr. Kamath referred to one of the recommendations provided to Karnataka Biodiversity board which was, while executing an ABS agreement or providing form 1, take a performance guarantee. Performance guarantee is similar to bank guarantee, wherein a certain amount of money is provided as a guarantee for the performance. One such performance guarantee can be achieved through a bank guarantee. This reduces the time spent in courts. Lastly, they touched upon the issue of post-facto approval. Mr. Parthasarathy stated that under the BDA, a post-facto approval system was introduced for a limited period, wherein entities can fill out the required forms and pay the dues.

### Session 3: Criminal Prosecution: Court Process and Procedures

**Mr. D.R. Ravi Shankar, Lead Partner, Lex Nexus, Bengaluru**

**Mr. Naveen Gudikote, Partner, RMN Legal, Bengaluru**



In this panel discussion with **Mr. D R Ravi Shankar** and **Mr. Naveen Gudikote**, highlighted the intricacies of the criminal prosecution process with regard to the special legislations. Mr. Ravi Shankar began to discuss about criminalization, which would be considered as one of the most important

aspects for stronger implementation of the law. As in the case of the special legislations, like the Forest Act, 1927, the Wildlife Protection Act, 1972 or the Biological Diversity Act, 2002 they do not have a mention about certain special offences which could be considered under the special legislations. But, the existence of the officer and the violation of his directions would be considered punishable.

Mr. Shankar then discussed about the types of offences, giving the participants a good understanding of the legal process and mentioning cognizable and non-cognizable offences under the classification. He then gave a brief description of the definition of cognizance, meaning to be ‘taking note of certain events’, which is particularly to be done by the magistrate. Then he goes on to talk about bailable and non-bailable offences. Mr. Shankar then highlights a very important aspect with regard to bailable and non-bailable offences, only where the material evidence does not indicate the involvement of the accused in the matter, only in those circumstances would the bail be granted.

Mr. Shankar then brought to light the process behind an FIR, a Police Report and a Complaint. Three important terms, that helps the participants to differentiate the stage of the investigation. He first discussed about an FIR, which when abbreviated would stand for “First Information Report”, usually registered by the police to take cognizance of the crime. An entry would be made by the police to begin the investigation process, as highlighted in the provisions of the Criminal Procedure Code, 1973. The police can begin with investigating the same when it comes to cognizable offences. But for non-cognizable offences, Mr. Shankar highlights the need for the permission from the magistrate to proceed further.

Proceeding further, Mr. Shankar discussed about police reports. This report, as highlighted by him would summarize all the necessary steps taken by the police. From the initial lodging of the FIR, to the investigation and collection of evidences. All aspects relating to the case would be summarized and put in form of a report. He highlights that this can also be called a 'Final Report'.

Mr. Shankar then moved on to talk about complaints, as this would be a statement made in front of the magistrate to take cognizance of the particular offence. He brought to light the importance of procedural adherence in matters relating to the filing of a complaint, as there are a lot of instances where due to lack of procedural adherence there would be the quashing of the complaint. The important distinction that Mr. Shankar highlights with respect to a police report and a complaint are that, where the cognizance of an offence can be taken from a police report itself, during those instances there would be no necessity for a complaint with the magistrate. When the authorized officer under the special legislations, to file a complaint with respect to a violation of the provisions of the special legislation could directly approach the magistrate. Before proceeding further, he briefly discussed about the contents of the complaint, which are statements from the witnesses, the broad list of documents and the articles of charge in the nature of the complaint.

Mr. Shankar then discussed the procedure of investigation mentioning certain provisions under the special legislations. Section 62A of the Forest Act brings to light the authorized officers having similar power as the police officer to conduct investigation, which would also include in recording witness statements, custodial interrogation and also drawing mahazars and the final report. Where there is also existence of certain provisions in certain states where the authorized officers are permitted to record an FIR, allowing them to take cognizance of an offence. Which is the special provision under the Forest Act, whereas the police would be the authority to take cognizance of offences under the Wildlife and Biological Diversity Act. Once there is judicial intervention in matters, the authorized officers can take cognizance of the offence, which in turn initiates the process of investigation.

Mr. Shankar also discussed the two categories of individuals who are eligible to take cognizance of offences under the wildlife and Biological Diversity Act. One, the officers after filing a complaint in the magistrate. Two, the persons who are stakeholders in the issue can also file a complaint. He stresses upon the need for procedural soundness in carrying out the duty. Mr. Shankar highlights the powers vested with the authorized officers where seizures of vehicles, forest produce could be done.

Following this, Mr. Shankar threw light on the two parts of a trial. Part A, where he discussed about the trial conducted based on the police report filed, where there would also be a discussion with the accused with regard to the charges filed against them. A Section 313 statement, as per the Criminal Procedure Code, 1973 would also be recorded in this scenario. Part B, where the process would be judicial in nature. Prosecutors take charge of the case and move ahead with it in the courts, where the knowledge of the prosecutor and the appointment of a specialized person in special legislations would be of key importance.

In conclusion, Mr. Shankar once again stresses upon the importance of procedures, highlighting the entire criminal judicial system upheld on the basis of procedural adherence and sound legal interventions. Mr. Shankar finally concluded the session by stating that the implementation of law should never fail, more importantly in matters of criminal nature, if that happens the law would fail.

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## Concluding Session: Feedback and Learning Assessment

### Team CEERA

In the final and concluding session, an objective based learning assessment was conducted on the material and modules of the five-day refresher course. The top scorers of the learning assessment were **Ms. Padmawathe**, scoring a total of 26 marks, **Ms. Meera Iyer**, **Ms. L. C. Bandana** and **Mr. Vijay M Godbole**, scoring a total of 22 marks each.

Following the test assessment, the participants, in brief, gave their feedback concerning the Training Course on “Benefit Sharing from forest ecosystem services: Law, policy, and administration for IFS Officers”. Taking the initiative, Ms. Padhmawathe, who topped the learning assessment test highlighted the learnings and key takeaways from the assessment and the one-week course. Ms. Padhmawathe discussing her personal experience highlighted how the virtual course progressed and became more interesting, whilst increased confidence in answering questions as the days passed. Commending the entire team of resource persons with special mention to Prof. Ramesh and Dr. Ravi Shankar for their insightful discussions on the intrinsic link between law and policy. The participants held the key takeaways from the course to be a great ‘refreshment’ from the sluggish life- post working from home and sparking new questions that must be asked to ensure the objectives of the Stated, Forest Conservation Act, and other legislation concerning bioresources are satisfied. Some of the participants were able to relate the learnings with their practical applications that are applied in the National Green Tribunal (NGT). The participants also commended the strategy of group presentations that allowed collaborating and sharing insights between the members. Lastly, the participants concurred that the training course helped them better understand the intricacies, application, and relationship of law and policy in society.

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# FEEDBACK FORM

Name of the Institution : Centre for Environmental Law, Education, Research and Advocacy, National Law School of India University, Bengaluru

Name of the Course : Compulsory Training Course on "Benefit Sharing from Forest Ecosystem Services: Law, Policy and Administration"

Duration and Period of the Course: Five Days - 23rd to 27th August, 2021

Course Objective : To equip the participating officers with knowledge of the legal, policy and administrative dimensions of protection and conservation of bio-diversity with specific focus on access to biological resources from forest ecosystems and the sharing of their benefits.

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\* Required

1. Name of the Participating Officer \*

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2. 1. Did you receive advance information from the institution about the programme? \*

*Mark only one oval.*

☐ Yes

☐ No

3. 2. When was the intimation received?

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4. 3. When did the officer respond?

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5. 4. What do you think about the structure and organisation of the course to meet the objectives? (Please rate your answer on a scale of 0 -10) \*

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6. 5. How useful will this training be immediately for your job? (Please rate your answer on a scale of 0 -10) \*

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7. 6. How useful is this training likely to be for future jobs you may handle? (Please rate your answer on a scale of 0 -10) \*

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8. 7. What is the practical orientation of the course content for the job you are handling/you may handle? (Please rate your answer on a scale of 0 -10) \*

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9. 8. How would you rate the opportunities you got to interact with fellow participants?(Please rate your answer on a scale of 0 -10) \*

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10. 9. How far have you been benefited from the interaction with your fellow participants? (Please rate your answer on a scale of 0 -10) \*

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11. 10. How far was the course material supplied relevant and related to the course content? (Please rate your answer on a scale of 0 -10) \*

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## Assessment of the Training Faculty

Please rate each of the following sessions of the training faculty on a scale of 1 to 10

12. 1. "Forest Policies and Sustainable Development" - Dr. Atul K Gupta, Day 1 - 2:30 - 3:30 PM \*
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13. 2. "Forest Dwellers and their Rights" - Prof. M K Ramesh, Day 1 - 3:30 - 4:30 PM \*
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14. 3. "Industry, Forestry and Biotechnology" - Dr. Suhas Nimbalkar, Day 1 - 4:45- 5:45 PM \*
- 
15. 4. "Potential of Forests to Obtain Carbon Finance and Ecosystem Services" - Dr. Jitendra Vir Sharma, Day 1 - 5:45- 6:45 PM \*
- 
16. 5. "Introduction to Biological Diversity Act 2002" - Ms. Anitha Arekal, Day 2 - 2:00 - 2:15 PM \*
- 
17. 6. "Panel Discussion on IP and Biodiversity: Bio-piracy Issues" - Prof. Sairam Bhat and Ms. Geethanjali K V, Day 2 - 2:15 - 3:15 PM \*
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18. 7. "Powers and Functions of NBA" - Prof. M K Ramesh, Day 2 - 3:15 - 4:30 PM

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19. 8. " Panel Discussion on Conceptual Development of Benefit Sharing under International Law" - Prof. Sandeepa Bhat and Prof. Sairam Bhat, Day 2 - 4:45 - 5:45 PM \*
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20. 9. "Problem Solving Exercise" - Mr. Raghav Parthasarathy and Mr. Vikas Gahlot , Day 2 - 5:45 - 6:30 PM \*
- 

21. 10. "Case Study-Conservationist" - Prof. Sairam Bhat and Ms. Lianne D'Souza- Day 3 - 2:00 - 3:00 PM \*
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22. 11. "Panel Discussion on Guidelines on Access and Benefit Sharing Mechanisms" - Prof. Sairam Bhat and Ms. Madhubanti Sadhya, Day 3, 3:00 - 4:15 PM \*
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23. 12. "Bio-Safety, Forest and Benefit Sharing" - Prof. M K Ramesh, Day 3 - 4:30 - 5:45 PM \*
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24. 13. "Biological Diversity Act 2002: Overview and Implementation in India", Prof. Sairam Bhat, Day 3 - 5:45 - 6:45 PM \*
- 

25. 14. Presentation by Officers, Day 4 - 2:00 - 3:00 PM \*
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26. 15. "Panel Discussion on PBR and BMC: Decentralised Governance in Environment" - Prof. M K Ramesh and Dr. Suhas Nimbalkar, Day 4 - 3:00 - 4:30 PM
- 

27. 16. "In Letter and Spirit: In Need for Integration of Laws for a Fairer Deal of Folk Healing in India" - Dr. M D Subas Chandran, Day 4 - 4:45 - 5:45 PM \*
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28. 17. "Problem Solving" - Mr. Raghav Parthasarathy and Mr. Vikas Gahlot, Day 4 - 5:45 - 6:30 PM \*
- 

29. 18. "Compensatory Afforestation" - Ms. Madhubanti Sadhya, Ms. Lianne D'Souza and Dr. M. P. Chengappa, Day 5 - 2:00 - 3:15 PM \*
- 

30. 19. "Litigation and Advocacy under the BD Act" - Mr. Rohith Kamath and Mr. Raghav Parthasarathy, Day 5 - 3:15 - 4:30 PM \*
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31. 20. "Criminal Prosecution: Court Process and Procedure" - Mr. D R Ravishankar and Mr. Naveen Gudikote, Day 5 - 4:30 - 5:30 PM \*

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32. 21. Learning Assessment - Day 5 - 5:30 - 6:00 PM \*

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### Overall feedback

33. 1. Which part of the course did you find most useful? \*

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34. 2. Which part of the course did you find least helpful? \*

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35. 3. How would you rate your overall impression of the course? (Please rate your answer on a scale of 0 to 10) \*

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36. 4. Did the course give you any specific ideas of improvement in your working situation when you get back? \*

*Mark only one oval.*

☐ Yes

☐ No

37. 5. If your answer to the previous question is yes, please spell out your ideas briefly

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38. 6. Any other comments/observations/suggestions you would like to make?

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# Learning Assessment - One Week Refresher Training Course on Benefit Sharing from Forest Ecosystem Services: Law, Policy and Administration

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\* Required

1. Name \*

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2. Designation \*

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3. 1. Which of the following legislations recognises the rights of local communities in accessing biological resources? \* 1 point

*Mark only one oval.*

- ☐ A. Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006
- ☐ B. Biological Diversity Act, 2002.
- ☐ C. Both A and B
- ☐ D. Neither A nor B



4. 2. Which of the following options is not a requirement for the grant of patent under the Patents Act 1970? \* 1 point

*Mark only one oval.*

- ☐ A. Novelty
- ☐ B. Commercial Applicability
- ☐ C. Industrial Application
- ☐ D. Inventive Step

5. 3. Which of the following is an advantage of having e-PBRS? \* 1 point

*Mark only one oval.*

- ☐ A. Increased awareness of bio-resources
- ☐ B. Increased sensitisation
- ☐ C. Effective planning and management
- ☐ D. All of the Above

6. 4. In which of the following conferences were the Sustainable Development Goals adopted? \* 1 point

*Mark only one oval.*

- ☐ A. United Nations Conference on Environment and Development, 1992
- ☐ B. World Summit on Sustainable Development, 2002
- ☐ C. World Summit on Sustainable Development, 2015
- ☐ D. United Nations Conference on Human Environment, 1972

7. 5. Which of the following theories in international law for the first time recognised the concept of benefit sharing? \* 1 point

*Mark only one oval.*

- ☐ A. Province of All Mankind
- ☐ B. Res Communis
- ☐ C. Res Nullius
- ☐ D. Common Heritage of Mankind

8. 6. Which of the following statements is true with respect to amount collected with respect to ABS under the Biological Diversity Act, 2002? \* 1 point

*Mark only one oval.*

- ☐ A. It is a tax
- ☐ B. It is a penalty
- ☐ C. It is a surcharge
- ☐ D. It is a fee

9. 7. Which of the following is the subject matter of focus of the Cartagena Protocol to the Convention of Biological Diversity? \* 1 point

*Mark only one oval.*

- ☐ A. Biological Resources
- ☐ B. Marine Resources
- ☐ C. Living Modified Organisms
- ☐ D. None of the Above

10. 8. Which of the following is not biological resource under the Biological Diversity Act, 2002? \* 1 point

*Mark only one oval.*

- ☐ A. Water
- ☐ B. Papaya
- ☐ C. Neem
- ☐ D. Jasmine

11. 9. Which section of the Biodiversity Act is called the citizen suit provision? \* 1 point

*Mark only one oval.*

- ☐ A. Section 51
- ☐ B. Section 52
- ☐ C. Section 61
- ☐ D. Section 62

12. 10. Which of the following is excluded from the Biological Diversity Act, 2002? \* 1 point

*Mark only one oval.*

- ☐ A. Normally traded commodities
- ☐ B. Human Genetic Material
- ☐ C. Uses by cultivars and breeders
- ☐ D. All of the above

13. 11. Any person desirous of applying for a patent or any other intellectual property based on research on biological material and knowledge obtained from India shall make an application in which of the following forms? \*
- 1 point

*Mark only one oval.*

- ☐ A. Form I
- ☐ B. Form II
- ☐ C. Form III
- ☐ D. Form IV

14. 12. Which of the following persons is not required to take prior approval of the National Biodiversity Authority under Section 3 of the Biological Diversity Act, 2002? \*
- 1 point

*Mark only one oval.*

- ☐ A. A Resident of India
- ☐ B. A citizen who is a Non-Resident of India
- ☐ C. A person who is not a citizen of India
- ☐ D. A body corporate not registered in India

15. 13. Which of the following criteria is a ground for refusing the grant of patent? \*
- 1 point

*Mark only one oval.*

- ☐ A. Originality
- ☐ B. Prior Art
- ☐ C. Industrial application
- ☐ D. Inventiveness



16. 14. Which of the following is covered under the TKDL repository? \* 1 point

*Mark only one oval.*

- ☐ A. Medicinal Plants
- ☐ B. Formulations of Indian System of Medicine
- ☐ C. Both A and B
- ☐ D. Neither A nor B

17. 15. Under which of the following writs can the appointment of members to the National Biodiversity Authority be challenged? \* 1 point

*Mark only one oval.*

- ☐ A. Writ of Habeas Corpus
- ☐ B. Writ of Certiorari
- ☐ C. Writ of Quo Warranto
- ☐ D. Writ of Prohibition

18. 16. Which of the following authorities is responsible to constitute the Biodiversity Management Committee? \* 1 point

*Mark only one oval.*

- ☐ A. Local bodies
- ☐ B. State Governments
- ☐ C. Central Government
- ☐ D. National Biodiversity Authority

19. 17. Which of the following international instruments provides for a comprehensive framework on Biosafety? \* 1 point

*Mark only one oval.*

- ☐ A. Kyoto Protocol
- ☐ B. Stockholm Protocol
- ☐ C. Nagoya Protocol
- ☐ D. Cartagena Protocol

20. 18. Compensatory Afforestation measures must be conducted on which of the following land surfaces primarily? \* 1 point

*Mark only one oval.*

- ☐ A. Reserve forests
- ☐ B. National Parks
- ☐ C. Non-Forest Land
- ☐ D. Private Forests

21. 19. Which of the following is not true regarding Peoples Biodiversity Register? \* 1 point

*Mark only one oval.*

- ☐ A. It is a mandatory requirement under law
- ☐ B. It is a tool for documenting biodiversity data
- ☐ C. It facilitates vesting of decision-making power with local communities
- ☐ D. It helps to bridge the gap between IP rights of local communities and benefits derived from genetic resources

22. 20. Which of the following cases was the lighted matchstick to the Compensatory Afforestation Fund Act, 2016 \* 1 point

*Mark only one oval.*

- ☐ A. M C Mehta v. Union of India
- ☐ B. BMC v. Western Coalfields
- ☐ C. T N Godavarman Thirumulpad v. Union of India
- ☐ D. None of the Above

23. 21. The benefits under the Guidelines on Access to Biological Resources and Associated Knowledge and Benefit Sharing Regulations, 2014 can only be in monetary form. \* 1 point

*Mark only one oval.*

- ☐ A. True
- ☐ B. False

24. 22. The fees levied by Biodiversity Management Committee (BMC) for accessing or collecting any biological resource for commercial purposes from areas falling within its territorial jurisdiction shall be in addition to the benefit sharing payable to the NBA/SBB under these regulations. \* 1 point

*Mark only one oval.*

- ☐ A. True
- ☐ B. False

25. 23. Under which of the following laws is the word 'forest officer' defined? \*
- 1 point

*Mark only one oval.*

- ☐ A. Indian Forest Act, 1927
- ☐ B. Wildlife Protection Act, 1972
- ☐ C. Both A and B
- ☐ D. Neither A nor B

26. 24. The Biodiversity Management Committee is a statutory body established under law. \*
- 1 point

*Mark only one oval.*

- ☐ A. True
- ☐ B. False

27. 25. Under the TRIPS (Trade Related Aspects of Intellectual Property) Agreement, patents can be granted only for products and not processes. \*
- 1 point

*Mark only one oval.*

- ☐ A. True
- ☐ B. False

28. 26. The orders passed by the National Biodiversity Board can be enforced like a decree of any civil court \*
- 1 point

*Mark only one oval.*

- ☐ A. True
- ☐ B. False



29. 27. An agreement to share benefits arising from the access and use of biological resources under the Biological Diversity Act, 2002 is a standard form contract subject to mutual agreement. \*
- 1 point

*Mark only one oval.*

- ☐ A. True
- ☐ B. False

30. 28. Under the Biological Diversity Act, 2002 only the National Biodiversity Authority has the power to collect access and benefit sharing fee. \*
- 1 point

*Mark only one oval.*

- ☐ A. True
- ☐ B. False

31. 29. 'Coal' is not categorised as a biological resource under the Biological Diversity Act, 2002. \*
- 1 point

*Mark only one oval.*

- ☐ A. True
- ☐ B. False

32. 30. The Joint Forest Management Committees are entitled as a matter of right to access and benefit sharing under the Biological Diversity Act and the regulations made thereunder. \*
- 1 point

*Mark only one oval.*

- ☐ A. True
- ☐ B. False

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