Volume 5, Number II, 2021

ISSN: 2581-7582

MNLU, Nagpur Contemporary Law Review

Special issue on **"Shaping Jurisprudence of Access and Benefit-sharing and Biodiversity Conservation: Emerging Trends"**

CLR

MNLU, Nagpur

Contemporary Law Review

Volume 5, Number II **2021**

Note to Contributors: Manuscripts, Editorial correspondence and Style-sheet requisitions should be addressed to the Editor, Contemporary Law Review (CLR), The Maharashtra National Law University, Nagpur, Waranga, PO: Dongargaon (Butibori), Nagpur-441108, Maharashtra, India, for soft material use E-mail : clr@nlunagpur.ac.in.

Mode of Citation : 5CLR2021<Page No.>

RNI No. : MAHENG/2018/76048 **ISSN: 2581-7582**

UGC-CARE List (Social Science) Sr. No. 72

MNLU, Nagpur

Contemporary Law Review

Volume 5, Number II 2021

Special Issue on

"Shaping Jurisprudence of Access and Benefit-sharing and Biodiversity Conservation: Emerging Trends"

A Biannual Faculty Peer Reviewed Journal

of

MAHARASHTRA NATIONAL LAW UNIVERSITY
NAGPUR

TABLE OF CONTENTS

MESSAGE FROM THE PATRON

Maharashtra National Law University, Nagpur is committed to its goal and mission of providing cutting-edge legal education that meets worldwide standards of excellence. To achieve this goal, the university has developed research centres in various interdisciplinary fields. The Centre for Environmental Law is an attempt of the university to respond to the need for legal scholarship in laws for the protection of the environment and preservation of its wholesomeness. It focuses on the laws for conservation of the environment, including forests, biodiversity, promoting sustainable living through improving environmental awareness and education, etc. The centre undertakes interdisciplinary studies with the participation of legal academia and other stakeholders committed to the conservation of the environment. The centre tries to promote environmental sustainability through action-oriented education, awareness and advocacy.

The Centre for Environmental Law, in partnership with the Maharashtra State Biodiversity Board in Nagpur, hosted a two-day international seminar on Implementing Access and Benefit-sharing: Sustaining Indian Biodiversity on November 12 and 13, 2021. The seminar was organised through virtual mode to promote socio-legal research and capacity building programmes aimed at promoting the development of sustainable biological resource management. Maharashtra State Biodiversity Board is a statutory autonomous body established under Section 22(i) of the Biological Diversity Act 2002 and works for the conservation of biodiversity and related aspects in the State of Maharashtra since January 2012. The board is committed to conserving biological diversity and securing its sustainable management, equitable distribution of benefits arising out of the access to biological resources.

The virtual seminar was held on the basic premise of implementation of the Access and Benefit-sharing (ABS) mechanism envisaged under the UN Convention on Biodiversity 1992 and its supplementary Nagoya Protocol 2010, which is important to attain distributive justice in the context of biodiversity. It specifically deliberated on the need to develop the jurisprudence of ABS mechanism in India by critically examining existing knowledge on biodiversity and its conservation and tried to identify gaps in the legal and institutional framework on ABS mechanism in India. The seminar reflected the emerging issues involved in ABS mechanisms like bio-piracy, conflict with Intellectual Property Rights and the reluctance of corporates and research institutions, etc. in India regarding sharing the benefits of genetic resources. The deliberations took place in the virtual seminar has resulted in the publication of the current issue of the Contemporary Law Review (CLR) and is dedicated to the developments in the law relating to the conservation of biological diversity and the ABS mechanism.

This special edition of CLR titled “Shaping Jurisprudence of Access and Benefit-sharing and Biodiversity Conservation: Emerging Trends” is arranged in four parts where first part deals with report of the deliberations of the round table discussion followed by the report of the seminar. Second part includes the research

papers selected through rigorous review process. Third part shares the outcomes of the virtual seminar. The last part presents the observations and recommendations provided by the faculty members of the university on the Biological Diversity Bill 2021.

I take this opportunity to thank the Maharashtra State Biodiversity Board, Nagpur for extending their support to organise and accomplish the two-day international virtual seminar on "Implementation of Access and Benefit-sharing: Sustaining Indian Biodiversity" successfully.

My sincere thanks are due to the invited guests of the inaugural and valedictory ceremonies, round table participants, technical sessions' chairs, paper presenters, attendees, and the organizing team. My earnest gratitude is extended to the honourable members of the Editorial Advisory Board for providing the editorial board with valuable guidance. My heartfelt gratitude extends to each member of the Special Editorial Board of faculty colleagues for their diligent efforts towards upholding the quality of research papers published in the journal and, finally, to the contributors of the journal for their thought-provoking and enriching research contributions.

Vijender Kumar

MESSAGE FROM THE MEMBER SECRETARY, MAHARASHTRA STATE BIODIVERSITY BOARD (MSBB)

Biological Diversity has been at the forefront of public policy since June 5, 1992 when India had signed United Nations Convention on Biological Diversity at Rio de Janeiro. This convention came into force on December 29, 1993. Consequently, Biological Diversity Act 2002 came into effect on February 5, 2003. Conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith continue to first and foremost objectives.

Maharashtra State Biodiversity Board came into existence on January 3, 2012 to secure implementation of the Biological Diversity Act 2002. However, conservation of biological diversity being an interdisciplinary public policy matter clubbed with associated complexity of ground reality, restrained the Board from realising the aforementioned objectives.

Biological diversity is a complex public policy discourse. This involves multiple stakeholders from different backgrounds. Ranging from village level indigenous tribal local villagers, intermediaries comprising of small and big traders to rich and powerful manufacturers of Ayurvedic drugs, cosmetic products, wellness centres and other associated incidental professionals. Ironically, these stakeholders belong to diverse socio-economic and financial backgrounds.

Reportedly, 70% of the trade is handled by 20% top manufacturers, while 80% of small and medium enterprises have to remain contended with 20% of trade outturn. This irony exists among traders as well, let alone grass-root poor indigenous peoples who as per legally mandated, Access and Benefit-sharing (ABS) policy should have benefitted the rates in the at 0.1% to 0.2% of ex-factory sale/ turnover of Commercial Enterprises learnt that rarely happened. These multiple constraints contributed towards the under achievement of the laudable objectives stated in Biological Diversity Act 2002. In view of the above, it was thought to have a stakeholders' seminar where participants from the legal fraternity, representatives of indigenous local villagers and Board officials of other neighbouring States could be invited to elicit their views so that a solution to the existing impasse could be found.

I have immense pleasure and satisfaction in expressing that the Maharashtra National Law University, Nagpur voluntarily came forward to accept this invitation. Under the guidance of the Vice-Chancellor, Prof. (Dr.) Vijender Kumar supported by the enthusiastic, energetic coordinating team of Prof. (Dr.) Himanshu Pandey, Prof. Sopan Shinde and Prof. Trishla Dubey, two-day virtual seminar during November 12-13, 2021 could be successfully organised. Not only state-level stakeholders participated; there was equally active participation from top policymakers of the World Bank besides top officials of the Ministry of Environment, Forest and Climate Change, Government of India. Diverse participation enriched the content of discourse hugely.

This Journal has compiled research papers covering multifarious dimensions of the Biological Diversity Act 2002 would certainly benefit the Legal Practitioners, Judges, Academicians, Policy Makers and other stakeholders of the general public, along the length and breadth of the country. Findings therein would also benefit global stakeholders. The Board would wish to keep a long-standing relationship with the Maharashtra National Law University, Nagpur for sustaining this discourse on Biological Diversity to secure effective and meaningful implementation of the Biological Diversity Act 2002.

(Praveen Srivastava)

IFS, Principal Chief Conservator of Forests

(B. Venugopal Reddy)
Principal Secretary (Forests)

MESSAGE

Maharashtra State Biodiversity Board since its inception on 3rd January, 2012 has been engaged in series of activities to disseminate awareness about Biodiversity Conservation and its sustainable management.

I am happy to know that Maharashtra State Biodiversity Board collaborated with Maharashtra National Law University, Nagpur to organize a webinar on "Access Benefit Sharing (ABS) in Biodiversity Conservation" during 12th & 13th November, 2021. It is a matter of great satisfaction that eminent Judges, Lawyers and academicians in the field of law participated alongwith representatives of Ayurvedic Drug Manufacturers Association. This Journal is sure to facilitate all the stake holders of Biodiversity Conservation with enriched facts about emerging challenges.

I extend my heartiest congratulations to those who contributed in preparation of this Journal.

(B. Venugopal Reddy)
Principal Secretary (Forests)

EDITORIAL

In the research paper titled, "Thinking Out of the Box: Application of Rights of Nature in Biodiversity Conservation", Dr. Chiradeep Basak, identifies that the anthropogenic intervention has dragged the elemental and conservational value of biological resources, quite rigorously down to the ground. The article aims to touch upon this specific avenue by invoking the pre-existing jurisprudential aspects of rights of the nature and its application in biodiversity conservation. The author observes that the contemporary debates on the conservation of biodiversity hardly touch the area of legal synergy between the same and the rights of nature. The author establishes that the conception of legal personhood of nature itself and its standing in a court of law has faced certain pragmatic challenges, and concludes that the bare minimum that can be done now is to elevate the rights of nature to newer heights by going beyond the traditional doctrine of economic benefits arising out of biological resources.

In the research paper titled "Access and Benefit-sharing: Legal Personhood of Environment and Earth Jurisprudence", author Mr. Sopan Shinde identifies that in the recent past, not only has nature stood in courts around the world but its legal personhood has also received due recognition. The author explores the possibilities offered by wild law and earth jurisprudence, and treatment of nature and environment in ancient Indian texts, towards conservation and sustainable use of natural resources. The paper further discusses the legal personhood of nature and its components in the Indian and international legal arena and its possible application to Access and Benefit-sharing.

In the research paper titled, "Human Rights and Biodiversity: A Conceptual Association", author Dr. Gade Mallikarjun observes that non-compliance with the provisions of the CBD and the Nagoya Protocol 2010, by many countries causes an alarming situation. In this article, the author tries to establish a relationship between the environment and human rights as the quality of the life of human beings, their physical and mental health, the requirement of adequate food, water, and sanitation, etc. depends on the environment in which they live. Therefore, preservation of biodiversity becomes necessary to protect and promote basic Human Rights, and hence, there is a need to share the responsibilities of conserving biodiversity by all countries.

In the research paper titled "Access and Benefit-sharing: A Jurisprudential Revisit", authors Mr. Shanmugham D. Jayan and Dr. Veena Roshan Jose try to analyse two phrases used in the Nagoya Protocol 2010. Reading the phrases 'fair and equitable sharing of the benefits' and 'arising from their utilisation' demonstrate that there is an element of uncertainty when analysed with respect to the phrase 'permission for access to genetic resources'. The article discusses the concept of Access and Benefit-sharing (ABS) in the light of the jurisprudential understanding of the concept of property and concludes that from the title of the Nagoya Protocol 2010, it can be inferred that there is no certainty with respect to the outcome of the access provided by one party to another, rather, what will be the

result of the use of shared genetic resources is not settled at the time of grant of such access.

In the research paper titled "Fostering ABS Through Indian CSR Policies: A Tale of Two Treaties", author Ms. Meghna Mishra analyses the international treaties for the conservation of biodiversity and tries to establish its nexus with the legal mechanism for CSR in India. The article examines the regulations regarding CSR in the light of their impact on the implementation of Access and Benefit-sharing. Finally, the article provides the future roadmap to ensure fair and equitable Access and Benefit-sharing through effective implementation of CSR.

In the research paper titled "A Study on Corporate Social Responsibility in India *vis-à-vis* Access and Benefit-sharing", authors Mr. Ankit Srivastva and Mr. Ashutosh Rajput identify that there are several challenges that are being faced due to the practice of ABS. A constructive approach for biodiversity management by providers and users can counter the obstacles. The authors argue that the successful implementation of ABS depends on a vivid understanding of the CSR process. While the companies that have not shown much prudence in showcasing CSR must acknowledge the fact that it has to pay back to the society, the same society from which sources have been utilised. The authors conclude by providing suggestions for the better utilisation of the CSR mechanism.

In the research paper titled "Access to Biological Resources and Benefit-sharing in India: An Analysis", author Dr. Manoj Sharma analyses the evolution of the concept of ABS and the objectives and obligations under the Nagoya Protocol 2010. The author focuses on the legal framework for the Conservation of Biodiversity in India in general and for ensuring ABS on fair and equitable benefit-sharing principle, in particular. Various challenges in the implementation of the ABS mechanism in India are discussed in detail and put forth suggestions for better achievement of the aims of the Convention on Biological Diversity 1992 and the Protocol 2010. The author concludes that still a lot is desired and there are various challenges in the implementation of the CBD and ABS mechanism.

In the research paper titled "Identification of Benefit-claimers for Effective Implementation of Access and Benefit-sharing Mechanism in India", author Ms. Trishla Dubey highlights the need to identify the benefit claimers to ensure fair and equitable sharing of benefits. The author argues that the identification of benefit-claimers is required for ensuring biodiversity justice and for conservation and sustainable use of biological resources. The author concludes with an observation that the parameters and best practices for the determination and identification of benefit claimers are to be specified in Biodiversity Rules 2004, and towards this end, certain concrete suggestions are also provided in the article.

In the research paper titled "Access and Benefit-sharing Mechanism: Legal Issues and Implementation Challenges in India", authors Dr. Vandana Singh and Ms. Mehak Rai Sethi attempt to understand the various legal issues and implementation challenges associated with the Biological Diversity Act 2002, with a special emphasis upon ABS Mechanism. The authors believe that there is a great scope of making improvements in the law for its better enforcement and

implementation. The authors believe that the stakeholders should be actively involved in the decision-making process for the smooth functioning of the legal system and to ensure that the law does not end up being rendered redundant.

In the research paper titled "Access and Benefit-sharing: Role of Intellectual Property in Achieving the Objectives of Biodiversity Law in India", author Dr. Anandkumar R. Shindhe highlights that indigenous sustainability depends on the ability of the Intellectual Property (IP) system in extending its protection over the traditional knowledge of the indigenous peoples. The author identifies intellectual property system can ensure proper access and benefit-sharing of knowledge and products arising out of the use of biological resources with the indigenous peoples as well as with the global population. India, in compliance with its international commitments has made some reforms in the legislations including Biodiversity Conservation Act 2002, Rules 2004, and Benefit-sharing Guidelines 2014. The author discusses the role of the intellectual property system in achieving the objectives of ABS.

In the research paper titled "ABS Litigation in India: Analysing the Role of Judiciary in Assuring Distributive BioJustice and Sustainable Development", authors Dr. Shilpa Jain and Mr. Abhinav Kumar analyse the role of the judiciary in providing distributive justice in the light of the Biological Diversity Act 2002. The authors discuss the view taken by the Indian Judiciary in matters related to Access and Benefit-sharing under the Nagoya Protocol 2010, and conclude that the judiciary, acting as an amicus environment, has produced a major shift in the environmental landscape of India while disposing of the matters related to ABS Mechanism and India's commitment under the Protocol 2010.

(Editorial Committee)

PROCEEDINGS
OF
TWO-DAY INTERNATIONAL SEMINAR
ON
IMPLEMENTATION OF ACCESS AND BENEFIT-SHARING: SUSTAINING INDIAN BIODIVERSITY

The two-day International Seminar on Implementation of Access and Benefit-sharing: Sustaining Indian Biodiversity was jointly organised by the Maharashtra National Law University, Nagpur, and the Maharashtra State Biodiversity Board on November 12-13, 2021. Five sub-themes were identified for the seminar and, accordingly, five technical sessions were organized, *viz.*, Biodiversity and Human Rights; Stakeholder Participation and Role and Contribution of CSR; ABS Legislation in India: Exploring the Gaps; ABS and Intellectual Property Rights; and ABS Litigation in India: Analysing the Role of the Judiciary in Assuring Distributive BioJustice and Sustainable Development. In addition to five technical sessions, an online roundtable discussion was conducted wherein there was a wide representation of stakeholders and experts from across the globe. Participants from state biodiversity boards, experts, NGOs, academicians, etc., participated in round table discussion.

Inaugural Ceremony

Prof. (Dr.) Vijender Kumar, Vice-Chancellor of Maharashtra National Law University (MNLU) opined that apart from the responsibility of an educational institution to achieve the highest academic standards, MNLU is also committed towards national development by strengthening society through all possible means. MNLU has designed a comprehensive institutional plan to provide a platform for socio-legal research, exchange of ideas, best practices, identify issues and challenges, and offer solutions regarding biodiversity regime, therefore, MNLU through its Centre for Environmental Law organised an International virtual seminar on 'Implementation of Access and Benefit-sharing: Sustaining Indian Biodiversity' in collaboration with Maharashtra State Biodiversity Board, Nagpur to promote socio-legal research and capacity building programme towards the development of smart and sustainable use of biological resources.

This virtual seminar was organised to develop the jurisprudence of ABS mechanism in India by critically examining the existing knowledge on biodiversity and its conservation; to identify gaps in the legal and institutional framework on ABS mechanism in India; and to discuss new and emerging issues in this area like bio-piracy, conflict with IPR, the reluctance of Indian corporations and research institutions, etc. The two-day seminar was an attempt at building a better understanding of potential models for ABS mechanism in India, enhanced understanding of roles and responsibilities of NBA, SBBs and BMCs a better understanding of the role (progressive or regressive) of the corporations and research institutions in India and abroad in benefit sharing in India. Prof. Kumar concluded with a note of expectation that these discussions and deliberations will

lead to the development of a more efficient and equitable ABS mechanisms in India.

Shri. Justin Mohan, IFS (Hon'ble Member Secretary, National Biodiversity Authority, Chennai, Tamil Nadu, Guest of Honour for the Inaugural Ceremony) in his speech, observed that the Access and Benefit-sharing has been a contentious issue for long as it has been a top-down approach. The Biodiversity Management Committees (BMCs) have to be activated for which they have to be enlightened about their duties and responsibilities under the Biological Diversity Act. BMCs are to be strengthened and their responsibilities are to be clearly defined. The speaker identified that overexploitation of resources by very few stakeholders can result in the extinction of the resource. That situation is going to harm the corporates also. Therefore, in the interest of the corporates, it is better that the share is beneficial to the indigenous communities. The community should also be informed that this particular specie gives them particular benefits.

Mrs. B.V. Umadevi, IFS (Hon'ble Additional Secretary, MoEFCC, Guest of Honour for the Inaugural Ceremony) highlighted the fact that there is no dearth in the number of legislations in the country which address the issue of conservation of forests, natural resources, and biodiversity. However, the Biological Diversity Act is the only statute that provides for Access and Benefit-sharing. As mentioned in both the CBD and Nagoya Protocol 2010 every country has a sovereign right on its bioresources for commercial utilisation or registration or patent. Prior approval is needed from the owner of the country having the right over these resources and also sharing of the benefits accrued through them. Biodiversity Act regulates the flow of resources outside the country for various purposes mentioned for access of these bioresources for the use in registration or commercial purposes as well as for patenting. The speaker highlighted that India is a pioneer country to be recognised intentionally for benefit-sharing. India has already signed 1500 internationally recognised compliance certificates on ABS. Still, some issues need to be streamlined and the ministry in consultation with the National Biodiversity Authority as well as State Biodiversity Boards are in the process of the same mechanism of benefit-sharing.

Mr. Andrew Mitchell, (Senior Forestry Specialist, World Bank, Guest of Eminence for the Inaugural Ceremony) shared his experiences as a British forester with over 40 years of experience, working in 130 countries. The speaker gave examples of how Access and Benefit-sharing have worked in various jurisdictions and how it has been used to reverse the trends of deforestation and degradation. He believes that the key to seeing access and benefit-sharing having an impact is actually in community forest management and working with the communities to establish sound forestry and resource management practices. The speaker highlighted the aspect that forestry is a technical subject and there is a need for trained professionals to manage these resources. Forestry is a subject that requires a lot of technical expertise. However, indigenous communities can easily manage the forests if they are given the support and the help that they need and this is where the forestry departments need to change.

Hon'ble Shri Justice Virendra Dutta Gyani, (Former Judge, High Court of Guwahati) who was the Chief Guest of the Inaugural Ceremony, started his speech by giving the example of Ms. Tulsi Gouda, aged 72 years, from Karnataka, who inspired him to join the conference despite his health issues. Ms.Tulsi Gouda planted 30,000 saplings and was nominated for Padmashree Award for her contribution and commitment for 30 years. The Hon'ble judge highlighted the significance of the Biological Diversity Act 2002 and the Rules 2004 and the duties and powers vested with the National Biodiversity Authority and the State Biodiversity Boards. The speaker mentioned the significance of the logo of the State Biodiversity Board, which is, *Mitrasyaham Sarvani Bhutani Samikshe, Mitrasya Chakshusha Samiksha Mahe*. The Hon'ble judge concluded his speech with the remark that even if Ms. Tulsi Gouda is not holding a degree, she should be our guide irrespective of her academic qualification.

Deliberations in Technical Sessions

The first technical session of the workshop was on the theme of **Biodiversity and Human Rights**. The session was chaired by Dr. Ragini P. Khubalkar, Faculty of Law at MNLU, Nagpur and Mr. Deva Prasad M, IIM Kozhikode. Four papers were presented in the technical session. Paper presenters deliberated on the associations between biodiversity, ABS, and human rights.

- Sachin Tripathi, in his paper "Revisiting the Impact of Biological Diversity and the Policy Responses from a Human Rights Perspective", dealt with the significance of biodiversity from a human rights perspective. The presenter attempted to present the linkages between biodiversity and human rights and the impact of the loss of biological diversity on human rights. The presenter analysed the existing legal framework to understand human rights obligations *viz-à-viz* biodiversity programmes, policies and programmes. The presenter suggested that there should be consolidation and strengthening of the government's response to address biodiversity and habitat loss to prevent its negative impacts on human rights and to ensure that actions to address biodiversity loss are equitable, non-discriminatory, and sustainable.
- Avinash Singh presented a paper titled "Interrelated Conceptualisation of Human Rights and Biodiversity with a Policy-driven Approach". The presenter argued that the concept of benefit-sharing should be viewed from the standpoint of indigenous people, i.e., the original inhabitants or providers of such genetic resources and biodiversity. The presenter opined that future generations need to understand and act on the spatial terrain issues relating to biodiversity and ecological conservation because they are closely knit with human rights standpoints. It was also pointed out that the attainment of the long-term goal of environmental sustainability and human rights justice can be fulfilled by studying both human rights and biodiversity issues from a single standpoint.
- G. Mallikarjun in "Human Rights and Biodiversity: A Conceptual Association" argued that the depletion of natural resources and discriminatory access to these resources across nations underscore the need to understand biodiversity issues from a human rights perspective. The

presenter argued that there is an innate relationship between human beings and biodiversity and that there is a need for adequate implementation of biodiversity laws with the view to ensuring proper protection and enjoyment of human rights. It was stressed that the relationship between human rights and biodiversity should be recognised so as to achieve the motto of sustainable development.

- Khanjana Hazzarika presented a paper titled "Biomedical Waste and Its Impact on the Environment in India". The presenter highlighted the need for scientific management of biomedical waste issues so as to ensure the protection of the environment. It was argued that the right to life, in its fullest potential, cannot be enjoyed unless the right to a clean environment is ensured. Accordingly, the presenter pointed out the need for the implementation of biomedical waste rules in letter and spirit.

The second technical session of the international seminar was on the sub-theme of **Stakeholder Participation and the Role and Contribution of CSR**. The session was chaired by Dr. Nazim Ahmed Shafi, Associate Professor of Law, MNLU, Nagpur, and Ms. Nidhi Singh, Assistant Professor of Law, Amity University. Seven papers were presented in this session.

- Rajesh Hooda presented a paper on "Strategic and Legal Shifts to Control Water Pollution Involving Corporate Social Responsibility". The presenter raised issues about water wastage and contamination of the water of major rivers. It was pointed out that industrial effluents and sewage are discharged into bodies of water and streams, thereby polluting drinking water sources and rivers. The presenter claimed that unabated water pollution is a serious threat to the environment and, hence, there is a need to devise strategies involving the private sector. It was suggested that the framework for corporate social responsibility could be used effectively to prevent water pollution.
- Hardik Sah, in his paper, "Strengthening and Engaging Local Communities for Better Documentation of People Biodiversity Registers", highlighted the need for the involvement of local communities in the implementation of biodiversity laws, particularly in the maintenance of PBRs. The presenter pointed out the discrepancies in the maintenance of PBRs and the non-maintenance of records by BMCs. It was further opined that the amount sanctioned by the Biodiversity Board is not effectively used for the benefit of benefit claimants and that the benefit claimants are not consulted. As PBRs are considered an important tool for indigenous and local communities, it was suggested that spreading awareness about the community rights about biodiversity, proper documentation, and proper utilisation of the funds will give impetus to the protection of biodiversity.
- Dr. Madhukar Sharma and Dr. Purnima Singh presented a paper titled "Benefit-sharing Perception of Community: An Empirical Study of Corporate Social Responsibility Initiatives" and an empirical study on Corporate Social Responsibility. The presenters pointed out the concept of CSR is inherent in the religious and social system in India. Due to

industrialization and the consequent disposal of chemical waste, fly ashes, lead, arsenic, cadmium, chromium, etc., environmental degradation has taken place on an unprecedented scale. The presenters argued that there is a conflict between development and the environment. To that end, the presenters opined that CSR as a tool has the potential to mitigate environmental degradation, and thus a need for policymakers to effectively implement the CSR Policy was felt.

- Sopan Shinde, in a presented research paper titled "Environmental Personhood: Representing Nature in Access and Benefit-sharing", stressed that the object of conservation of biodiversity and sustainable use can be better realised by conferring legal personality on nature consisting of hills, mountains, lakes, etc. The presenter put forth the idea that nature should be recognised as a major stakeholder in the ABS mechanism and that by recognising environmental personhood, the rights of nature can be better preserved. The presenter argued for the development of earth jurisprudence to cater to the issue of biodiversity conservation.
- Meghna Mishra presented a paper titled "Fostering ABS through Indian CSR Policies: A Tale of Two Treaties" which stated that the CBD and Nagoya Protocol have played a vital role in matters of biodiversity at the international level. The presenter opined that there is a vague implementation of the CSR policies and he underscored that the goals of the Nagoya Protocol 2010 and CBD in India are not being realised efficiently. The presenter stated that CSR policies are ambiguous in nature and encourage corporate spending not only on ecological issues but also on a plethora of thematic areas like education, healthcare, etc. The presenter stressed that CSR policy should place emphasis on corporate environmental responsibility.

The third technical session of the international seminar dealt with the sub-theme **ABS Legislation in India: Exploring the Gaps**. The session was chaired by Dr. Manoj Kumar Sharma, Associate Professor of Law, MNLU, and Dr. Chirodeep Basak, Assistant Professor of Law, NLU, Assam. Five papers were presented in this session.

- Dr. Santosh Aghav and Divyanshu Priyadarshi in their paper titled "Implementation of the Access and Benefit-sharing Mechanism in India: Issues and Challenges", highlighted the gaps in the implementation of the law and the approach of the implementation agencies. The presenter highlighted that in the Indian federal scheme of division of legislative and administrative powers, the ground level implementation of the provisions of the Biological Diversity Act and Access to Biological Resources and Associated Knowledge and Benefits Sharing Regulations, 2014, is required to be implemented by the states, i.e., through State Biodiversity Boards. Therefore, being in the United States domain, the implementation of the law and the regulations issued thereunder vary from the State of State. Whereas some states constituted SBB in the initial years of the implementation of the Biological Diversity Act, some other states, like the State of Bihar,

constituted SBB very late and even the Biodiversity Management Committees across the State of Bihar were constituted in an adhoc manner without any training or preparation, leading to the tardy implementation of the provisions. The presenter also pointed out that there is a lack of awareness amongst those who ought to benefit from the provisions, i.e., farming and tribal communities.

- Lavanya Bhagra, in the paper titled "The Biodiversity Act, 2002: A Critical Analysis", argued that there is an apparent conflict of approach in the implementation of provisions of TRIPS and CBD, since TRIPS seeks to open up the borders to ensure a free flow of services, whereas CBD aims at conservation and, therefore, subjects commercial exploitation of biological resources to various conditions. The presenter also pointed out that the provisions of the Biological Diversity Act 2002 constitute a violation of Article 14 of the Constitution in so far as they discriminate between commercial exploitation by domestic people on the one hand and by foreigners/foreign entities on the other. The presenter pointed out that the current law, after the enactment of the 2014 ABS Regulations, focuses more on profit-sharing from commercial exploitation of biological resources than on conservation of biological resources.
- Ms. Samriddhi Verma presented a paper with the title "Principles of Fair and Equitable Benefit-sharing Under Biodiversity Law: A Perspective from COVID-19 Highlighting Legal Gaps in Benefit-sharing Provisions of Indian Biodiversity Law *vis-à-vis* International Biodiversity Law". The presenter highlighted legal gaps in the benefit-sharing provisions of the Indian Biodiversity law and international provisions. The presentee pointed out that, as a matter of convention, most of the international legal instruments and their provisions are drafted in a language that is directory in nature rather than mandatory, and as such, wide discretion is granted to respective countries. The presenter felt that so far as fair and equitable benefit-sharing is concerned, wide discretion and anomalies have left the question of fairness and equity in benefit-sharing unanswered and non-negotiable. The presenter was of the view that the law is evolving and that conceptual clarity is still awaited, leading to unnecessary litigation. The presenter also submitted that the analysis has brought to the surface that benefit-sharing amounts are meagre and, therefore, in the present shape, the legislation is not able to ensure the third objective of CBD, i.e., fair and equitable benefit-sharing. The presenter also referred to the adverse impact of COVID-19 on the ABS mechanism.
- In their presentation on "Access and Benefit-sharing Mechanism: Legal Issues and Implementation Challenges in India," Dr. Vandana Singh and Ms. Mehak Rai Sethi discussed various implementation challenges to the ABS mechanism in India. The presenters pointed out that their study has revealed that the level of awareness of the provisions of the law is dismal. The presenters opined that Indian law on biodiversity has diluted the provision of CBD regarding prior informed consent. Rather, section 7 only requires intimation to SBB when the commercial exploration of biological resources

is to be done by an Indian citizen or body corporate incorporated in India. The presenters were of the view that the implementation of the Biological Diversity law in India has not been able to achieve the objectives of the CBD.

- In the paper titled "Attainment of Benefit-sharing Objective in India: Challenges and Prospects", Digvijay Singh referred to draught guidelines of 2019 prepared by the National Biodiversity Authority. The presenter has referred to the popular perception among Indian companies, before the Uttarakhand High Court Judgment in Divya Pharmacy, that ABS is applicable only to foreign companies and not to Indian companies. The presenter highlighted that the Uttarakhand High Court in *Divya Pharmacy v Union of India* categorically laid down that all Indian companies which are extracting biological resources are liable to seek prior approval as well as share part of their revenue with indigenous and local communities having traditional knowledge. The presenter opined that the draught NBA guidelines of 2019 making it obligatory for SBBs to follow the regulations of the NBA seem to be interfering with the independence of SBBs.

The fourth technical session dealt with the sub-theme **ABS and Intellectual Property Rights**. The session was chaired by Prof. (Dr.) Himanshu Pandey, Professor of Law, MNLU, Nagpur, and Dr. Veena Roshan Jose, Assistant Professor of Law, DNLU, Jabalpur. Four papers were presented in the session.

- In the paper titled "Ensuring Justice to Indigenous Communities' Knowledge by Prohibiting Bio Piracy: Analysing the Role of TRIPS in Combating Bio-piracy", Ashish Kaushik discussed the rights of the indigenous communities under TRIPS for protecting their traditional knowledge. The presenter highlighted that though the WTO has taken various initiatives at the international level to provide a level playing field for all nations while carrying on trade, the regime has failed to check bio-piracy. The presenter suggested that in order to deal with the malpractice of bio-piracy, a specially dedicated regime under TRIPS should be created.
- Himanshu Varshney, in "Implementation of the Nagoya Protocol in India: A Critical Appraisal", argued that India has immense potential in biodiversity, especially for the production of medicines, food, etc. The presenter argued that despite being rich in biodiversity, India has been a victim of misappropriation or bio-piracy of our genetic resources and associated traditional knowledge, which have been patented in other countries. The presenter referred to the annual reports of the NBA and highlighted that there was a serious decline in the approval of ABS applications and Benefit-sharing Agreements. Most of the applications were under process for more than a year, and consequently, the realisation of the benefit-sharing component was seriously prejudiced. The presenter stressed that there is a need to further strengthen the 2014 ABS Regulation because there is no imperative set for the approval of ABS applications under Sub-Section (2) of Section (1) of the Regulation and the satisfaction of the NBA is the sole basis for the approval of ABS applications.

- Mr. Pranav Ojha and Ms. Priya Kumar in "Access and Benefit-sharing: Whose Access and Whose Benefit?" argued that with the advent of the Agreement on Trade-Related Aspects of Intellectual Property Rights, privatisation also gained momentum, a concept that is unsuitable for biodiversity and its resources. The presenter referred to various instances where Intellectual Property Rights have been granted to applicants who have unauthorisedly and clandestinely attributed knowledge of the global south to themselves and robbed the cultural properties of many indigenous communities. The presenter underscored the importance of the Nagoya Protocol 2010 but argued that there is a need to ensure a uniform definition of access in domestic laws to make Access and Benefit-sharing more effective. The presenter pointed out that detailed deliberation is required to identify and quantify how much access can be called sustainable and not exploitative.
- Anand Kumar Shinde, in "Access and Benefit-sharing: Role of Intellectual Property in Achieving the Objectives of Biodiversity Law in India", argues that the intellectual property system can ensure access and benefit-sharing of knowledge and products arising out of the use of biological resources with the indigenous population as well as the global population. The presenter provided insights on the role of the intellectual property system in achieving the objectives of ABS and tried to analyse the effectiveness of the IP system.

In the fifth technical session, the sub-theme **ABS Litigation in India: Analysing the Role of the Judiciary in Assuring Distributive Bio-justice and Sustainable Development** was deliberated. The session was chaired by Dr. Madhuri Parikh, Associate Professor of Law, Nirma University and Dr. Manish Yadav, Assistant Professor of Law, MNLU, Nagpur. Five papers were presented in the session.

- In the paper "Intergenerational Equity and Sustainable Climate Action in India", Mani Pratap and Swati claimed that rapid industrial growth and mega projects for economic activities have seriously impacted the environment and, consequently, the issues of environmental protection and sustainability have gained ground. Presenters called for a sustainable climate action plan in India to ensure the principle of intergenerational equity. The presenters suggested that developed countries should follow certain peremptory norms accepted as *jus cogens* and *erga omnes* while discharging their state responsibility towards the environment in general and climate change in particular.
- Sugurappa Mallappa and Devaiah NG, in "Need for an Effective Jurisprudence on Air Act for Sustainability of Biodiversity and Human Rights with Reference to Bangalore City", stated that the right to a healthy environment is universally accepted as a fundamental or constitutional right in several countries across the world, including India. Presenters pointed out that despite the recognition of the right to the environment as part of the fundamental right to live in India, air pollution in the country has reached alarming proportions. The presenters explored the situation of air pollution

and its adverse impact on the health of people with reference to the city of Bangalore. It was suggested that there is a dire need to develop an effective jurisprudence on the Air (Prevention and Control of Pollution) Act, 1981 for the protection of biodiversity and human rights.

- In the paper titled "Achieving Food Security through Bio Diversity Act", Sudhanshu Pathania mentioned that food security is a looming problem throughout the global south. The Biological Diversity Act 2002 and the Convention on Biological Diversity 1992 can play an important role in creating a link between IPR and food security. The presenter pointed out that the Act also embodies the principles of Access and Benefit-sharing and allows equitable benefit-sharing of the funds as well as joint ownership of the IPR for the traditional knowledge holders along with the applicants. This would form the basis for a mutually beneficial relationship for the industry as well as holders of traditional knowledge, which would propel India towards food security.
- Saheli Chakraborty, in "Climate Change Induced Migration: Are They Refugees?", deliberated that climate change induced refugees do not have the right to be relocated or settled in another state. They are dependent on the discretionary powers of the states where they are seeking asylum. The presenter opined that the situation of climate refugees needs to be addressed at the global level under international refugee law and also under international human rights law.
- Himanshi Babbar, in the paper titled "Highway Projects and Their Impact on Biodiversity: A Critical Analysis", claimed that the unprecedented and irreversible loss of biodiversity in modern times is caused primarily by the elimination or degradation of natural habitats. Biodiversity loss and environmental damage can be considerably reduced if planners and road construction agencies maintain good drainage and natural water flows and minimise roadside habitat loss. The presenter maintained that road projects are designed and implemented in such a way that huge losses in biodiversity are caused. Accordingly, presenters suggested that there is a need for stringent enforcement of legal provisions for the protection of biodiversity against land acquisition done for carrying out various highway projects through the forest lands.

Round Table Discussion

The round table session of the international seminar on "Access and Benefit-sharing: Sustaining Indian Biodiversity" was organised on November 13, 2021 (Saturday) from 10:00 am to 4:00 pm. It was attended by chairpersons of state biodiversity boards, member-secretaries of the SBBs, academicians, lawyers, industrialists, bureaucrats, and students from within the country and outside.

The session was divided into five broad themes, namely, Biodiversity and Human Rights; Stakeholder Participation and Role and Contribution of Corporate Social Responsibility; ABS Legislation in India: Exploring the Gaps; ABS and Intellectual Property Rights; and ABS Litigation in India: Analysing the Role of the Judiciary in assuring Distributive Bio-justice and Sustainable Development.

The first theme, **Biodiversity and Human Rights,** witnessed the participation of three guest speakers, i.e., Dr. Sheshrao H. Patil, Chairman, Maharashtra State Biodiversity Board; Mr. Anupam Joshi, Senior Environmental Specialist, World Bank; and Mr. Sanjay Upadhyay, Advocate, Supreme Court of India and Managing partner, Enviro Legal Defence Firm, New Delhi.

Dr. Sheshrao Patil referred to provisions of the Convention on Biodiversity, the Nagoya Protocol 2010, national legislation on the environment, and the Biodiversity Act 2002. He opined that there is a need to address threats to biodiversity like climate change, overexploitation of resources, pollution, and invasive alien species like Lantana, Hiptis, Promelina, etc. The speaker argued that biodiversity conservation is a complex issue and requires a multidimensional approach. Referring to fundamental duties enshrined in Part IV-A of the Constitution, panelists called upon the citizenry to perform their duty towards the protection and preservation of the environment and biodiversity.

Mr. Anupam Joshi pointed out that there is a constant tussle between those who are entrusted with the protection of the forests and those who are traditionally dependent on them. Mr. Joshi stated that indigenous and local people living around the forests access natural resources as a matter of right and the forest department attempts to protect unauthorised use of forest produce, leading to tensions between the two. This tension has, over the years, given rise to joint forest management committees (JMFC). The speaker stressed the need to include the terminology of human rights in national dialogues on biodiversity. Reference was made to the conflict between the right to livelihood as a human right and the motto of sustainable use of bio-resources. Therefore, he stressed the building of a narrative that is widely accepted and can cater to both, i.e., conservation and the sharing of benefits. The speaker stressed that developing the narrative to link human rights and biodiversity will lead to a more productive partnership between local people and protectors. It was pointed out that in this manner, people's bona fide rights will be better protected, and at the same time, resources can be sustainably used.

Mr. Sanjay Upadhyay lauded the role of the Supreme Court in environmental matters, especially with regard to the emphasis on changing the focus from an anthropocentric to an eco-centric view. He referred to various judgments and pointed out that bio-resources like glaciers, mountains, rivers, and forests can be recognised as living entities. The speaker emphasised that there is a nexus between human rights and intellectual property rights that requires analysis and understanding clearly. Referring to bioresources and associated traditional knowledge, the speaker maintained that in this community, intellectual property rights are involved. He emphasised that there is no linkage between the Biological Diversity Act and community intellectual property, which is required to be relooked and re-examined.

Mr. Andrew Mitchel, Senior Forestry Specialist, World Bank, and Dr. Dharmendra Varma, Member Secretary, M.P. Biodiversity Board, Bhopal, deliberated upon the nuances of the second theme, i.e., **Stakeholder Participation and The Role and Contribution of Corporate Social Responsibility.**

Mr. Andrew Mitchell emphasised the role of the World Bank in giving a push to CSR activities in developing countries and also presented an inter-country perspective with respect to ABS in Europe, Bangladesh, and Nepal. The speaker opined that if communities that have been traditionally managing natural resources are excluded and denied access to biological resources, they will resort to unsustainable methods of resource use. He believed that there was a direct nexus between areas of poverty and areas of high natural resource assets, i.e., people who live close to forests are often very poor, though they are close to and have access to better resources. The need for cultural exchange and the involvement of the community in the management of resources He cited examples of World Bank-financed schemes of community forestry launched in Albania and Nepal which have helped to regain forest cover. He discussed his experiences from the UK, Indonesia, and Thailand regarding the promotion of CSR activities with respect to ABS. He opined that CSR in the field of ABS can lead to improved livelihoods, forest rehabilitation, and the establishment of green value chains.

Dr. Dharmendra Verma discussed the concept of key stakeholders. According to Dr. Verma, everybody is a stakeholder when it comes to the conservation and utilisation of biological resources, but we need to identify the key stakeholders, which include those people whose lives and livelihood depend upon these resources. Currently, the contribution of CSR towards biodiversity conservation is roughly 2–3% of total CSR expenditure, and there is immense potential to enhance this contribution. The speaker urged the companies to earmark more contributions towards biodiversity conservation. The National Biodiversity Authority and the Ministry of Environment, Forests, and Climate Change have identified financial solutions in the form of CSR for biodiversity conservation. However, CSR and ABS fall under the domain of two different legislations, i.e., the Companies Act 2013 and the Biodiversity Act 2002. There is a need to find convergence between the two laws in the interest of biodiversity conservation as a whole.

Mr. Justin Mohan, IFS, Secretary, National Biodiversity Authority; Smt. Anitha S. Arekal, IFS, Member Secretary, Karnataka State Biodiversity Board; and Dr. D. Nalini Mohan, IFS, PCCF, and Member Secretary, Andhra Pradesh State Biodiversity Board participated in deliberations on the third sub-theme, **ABS Legislation in India: Exploring the Gaps.**

Mr. Justin Mohan, highlighted the implementation issues pertaining to the Biological Diversity Act faced by the National Biodiversity Authority. The speaker analysed the provisions of the Biological Diversity Act 2002 and the ABS Guidelines of 2014. It was pointed out that the core issue in the ABS mechanism is the trust deficit between the stakeholders, and the companies are not willing to shell out 0.1% to 0.5% towards ABS, whereas they can spend even up to 5% on CSR if they are left to decide the mode and manner of providing the benefit. Accordingly, CSR can be a more efficient tool to address ABS issues. Further, owing to the provisions of the Act, only foreign entities, i.e. non-citizens, companies registered outside, and companies incorporated in India but having foreign participation in management and share capital, are required to approach the NBA for approval. It was mentioned that this category of entities constitutes only 5% of those using biological resources. Other individuals, i.e., those not covered

above, are required to notify SBB in advance, and NBA plays no role in this.The speaker opined that benefits must be shared after taking into account the specific needs of the local communities and that effective ABS implementation can happen with the participation of all relevant stakeholders, capacity building of the BMCs, clarity in the provisions, and by removing the trust deficit between corporations, boards, and benefit claimers.

Mrs. Anitha S. Arekal focused on the implementation of the Biological Diversity Act, 2002 in the State of Karnataka. Problems faced by the State Biodiversity Boards in implementation of the mandate of the Act were discussed along with the good practises followed in Karnataka Biodiversity Board *viz*., Implementation of a large scale unique project aimed at assessing the availability of medicinal plants in the forests of Karnataka for sustainable commercial utilization; Categorization of the bio-resources commercially utilised by industries into different ABS percentages based on the threat status of the plant bio-resources and also based on the source, whether, wild, mixed or cultivated; Creation of a unique proforma for commercial entities to submit ABS based on the annual gross ex-factory sale of the products to remove ambiguity regarding applicability of Regulation 3 or 4 of ABS Regulations; Initiation of measures for integration and harmonisation of licencing procedures with various State Licensing Authorities to ensure compliance of the provisions of the Bio Diversity Act, 2002 at the time of grant or renewal of industry licenses; Making the chairperson of the local body as the chairperson of the BMC to ensure their participation etc.

Various challenges in the implementation of the Act were discussed *viz.*, inadequate staff with the SBB; Trust deficit between SBB and the industry; lack of exemptions to small scale industries resulting in more spending than the collections under ABS; lack of co-ordination among SBBs; Centralisation of ABS agreements, etc. For better implementation of the mandate of the Biological Diversity Act, there is a dire need for awareness creation about the Act using all possible media among the stakeholders, capacity building of the Biodiversity Management Committees, and finding an appropriate balance between ease of doing business under the Act and conservation of biodiversity.

Dr. D. Nalini Mohan, shared her experiences as Member-Secretary of the Andhra Pradesh State Biodiversity Board and discussed the gaps in the existing biodiversity framework in India. For example, the Act doesn't clarify the meaning of several terms like value-added product, normally traded commodity, and cultivated crops; there are exceptions made in the Act in favour of *Vaids*, *Hakims*, and cultivated crops without taking into account their impact on biodiversity conservation; the user of biological resources has the option of paying ABS on procurement cost or value of turnover of the final product, leading to difficulties in computation and implementation. Hence, clarity is required in the Act as well as in the ABS Guidelines, 2014 for effective implementation of the Act.

The fourth sub-theme, **ABS and Intellectual Property Rights**, was discussed by Dr. Rahul Mungikar, Member, Maharashtra State Biodiversity Board, and Smt. Sunita K. Sreedharan, Advocate and Patent Agent, SKS Law Associates.

Dr. Rahul Mungikar focused on the grey areas of the Biological Diversity Act with reference to Intellectual Property Rights and the rights of the tribal or local community with respect to the bio resources and their utilisation at the ground level. The discussion brought forth the point that Access and Benefit-sharing should be more community-oriented, and appropriate changes are needed in the rules for easy incorporation of the rights to be claimed as IPR based on the People's Biodiversity Register (PBR). Capacity building of governmental and non-governmental agencies who are involved in the PBR documentation process is necessary so that they understand the PBR and IPR and issues related to it. IPR generation at the community level is required to be pursued rigorously. Expert panellists pointed out that there is hardly any SOP or guidelines for PBR documentation of traditional knowledge belonging to nomadic tribes. Further, the multiplicity of laws like the Panchayats (Extension to Scheduled Areas) Act; the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006; the Biodiversity Act, 2002; and the Protection of Plant Varieties and Farmers' Rights Act, 2001 makes implementation difficult and there is a need for integration of these laws.

Smt. Sunita K. Sreedharan**,** focused on the interface of IPR and ABS. The discussion hovered around the point that the Biological Diversity Act 2002 facilitates ease of doing business, commercialization of biological resources, and provides initiatives and help to Start-Up India, but the emphasis on conservation of biodiversity is missing. She raised questions about the admissibility of community IPRs, claiming that the nature of IP is an individual's intellectual wealth and that there is no place for community IP in the conventional IP regime.

The fifth and final theme, **ABS Litigation in India: Analysing the Role of the Judiciary in assuring Distributive Bio-justice and Sustainable Development**, saw the participation of three guest speakers: Mr. Ranjit Puranik, MD and CEO, Shree Dhoorapapeshwar Ltd.; Mr. Vijay Sharma, Secretary of AMWA (AYUSH Manufacturers Welfare Association) and Dr. Subhradipta Sarkar, Associate Professor, Jamia Milia Islamia University, Delhi.

Mr. Ranjit Puranik referred to Ayurveda as "the codified wisdom of the seers". The speaker discussed issues pertaining to IPR relating to Ayurveda, regulation of the sector under Indian laws, and the contribution made by the Ayurveda sector to taxes, levies, and other charges under the Drug and Cosmetics Act. According to Mr. Puranik, there should be regular monitoring of trade and consumption of bio-resources, which is rarely undertaken. He claimed that the entire focus of the biodiversity regime is on the collection of taxes and levies from the industry, and in the process, conservation and sustainable use of the biological resources have been ignored. He claimed that the pertinent issue is whether Ayurveda, a traditional IP in itself, is held by the Union of India on behalf of all communities and therefore eligible to be considered under ABS at all. He stressed that there is a need to differentiate between codified Ayurveda science and traditional community knowledge held by *Vaid*, *Hakim*, etc.

Mr. Vijay Sharma asserted that Ayurveda is a science and not just knowledge coming from the community, tribal people, and traditional folklore. Our ancient

sages, thousands of years back, gave very clear specifications of the properties of various plants and herbs, which are known as Ayurveda in contemporary times. The speaker asserted that the ABS mechanism is a way to stop bio-piracy by foreign institutions that are accessing bio-resources in India without any accountability. He claimed that the ABS regime does not deal with the accountability of Indian industries. To support this contention, he claimed that the countries that implemented the Nagoya Protocol 2010 have not been claiming benefit-sharing from domestic players. It was asserted that though the ABS Regime should not be applicable to them, the Ayurveda industry is willing to comply with the ABS mechanism, but the industry needs a sustainable supply of medicinal herbs, which is possible only when either there is availability of forests or there is regular cultivation. There is no third source of supply of raw materials required to run the Ayurveda industry. Biodiversity Management Committee (BMC) approved supply chains can be created to ensure a regular supply of raw materials. The industry is ready to pay collection fees, BMC charges, and any other additional amount if the money is actually spent on the creation of new forests and maintenance of existing ones. According to Mr. Sharma, litigation cannot solve the problem of ABS implementation in India and the matters can be resolved only through mutual dialogue with all the relevant stakeholders (government authorities, corporations, and indigenous people).

Dr. Subhradipta Sarkar emphasised the importance of the Access and Benefit-sharing mechanisms under the Biological Diversity Act 2002, the Rules 2004 and the Guidelines 2014. Dr. Sarkar highlighted the gaps in the existing framework.

Valedictory Ceremony

Prof. (Dr.) Vijender Kumar, Vice-Chancellor of Maharashtra National Law University (MNLU) observed that there is a need to implement access and benefit-sharing mechanism under UN Convention on Biodiversity 1992 and its supplementary Nagoya Protocol 2010 effectively, in order to attain the goal of distributive justice in the context of biodiversity in India. The seminar was organised with the objective to develop the jurisprudence of ABS mechanism in India by critically examining existing knowledge on biodiversity and its conservation.

Prof. Kumar ascertained that the seminar has made a sincere attempt at building a better understanding of potential models for access and benefit-sharing mechanism in India, and promoting enhanced understanding of roles and responsibilities of the NBA, SBBs and BMCs in India, as well as a better understanding of the role of the corporations and research institutions in India and abroad in sharing the benefits from biological resources in India. Prof. Kumar was optimistic that these discussions and deliberations will lead to the development of a more efficient and equitable ABS mechanism in India.

Dr. Shriram Panchu, (Senior Advocate, Madras HC, Chennai, Guest of Honour for the Valedictory Function) started his speech by noting the fact that there was no access and benefit-sharing whatsoever in the past seven years or more. The speaker remarked that if he were a Supreme Court judge, he would have issued sue moto notice as to why this has not happened. And then, see to it that both parties, that all

parties got around to a negating table to work out precisely how this access and benefit-sharing is going to be implemented. According to the speaker, the problem is that there are on the one side the local indigenous people who do not have the capacity and resources to engage with contention and dispute with those on the other side. Those on the other side are traders and commercial enterprises who have the money, clout, manpower, and resources. There is an imbalance of power here. The speaker identified that mediation is a very good way of sorting out disputes.

Dr. V.B. Mathur, (Hon'ble Chairman, National Biodiversity Authority, Chennai, Guest of Eminence for the Valedictory Function). The speaker focused on the legal aspects of the issue and observed that some definition and redefinition of the issues under the Act is required. The practical issues pertaining to the implementation of the Biological Diversity Act 2002 was highlighted and pointed out that the Act is currently juggling between two major issues the one is of interpretation and the other one is of implementation. Due to this, all the stakeholders, be it common man or industrialists or bureaucrats, are suffering. If these issues persist, then everybody will have their interpretation of the law. The speaker highlighted the need for amending the definitions in tune with the scientific advancements in the area. The speaker concluded his talk with an observation that the university can play a decisive role in spreading awareness about the environment and biological conservation.

Shri Aditya Thackeray, Minister of Environment and Climate Change, Government of Maharashtra, congratulated the Maharashtra National Law University, Nagpur and the Maharashtra State Biodiversity Board (MSBB) for organising the international seminar on a topic that has contemporary relevance. Shri Thackeray extended all support to conserve the social, cultural, and economic value of the biological resources to ensure their conservation and sustainable use.

***

THINKING OUT OF THE BOX: APPLICATION OF RIGHTS OF NATURE IN BIODIVERSITY CONSERVATION

Chiradeep Basak[♣]

Abstract

The notion of biodiversity-based richness signifies a climate system which is in an uncontaminated state. This potent construction of biodiversity ensures a natural habitat for its components which strives to sustain and prosper. However, the anthropogenic intervention and its rising hunger to devour the reinvigorating aesthetic value of such ecosystem has dragged the elemental and conservational value of biological resources, quite rigorously down to the ground. The changing shape of civilization has immensely contributed to the degradation of the sacramental value of biodiversity. All the focal points of our biological resources revolve around the rights of the communities/benefit claimers and interests of body corporates. This paper aims to touch upon this specific avenue by invoking the pre-existing jurisprudential aspects of rights of nature and its application in biodiversity conservation. The contemporary debates hardly touched area of a legal nexus between biodiversity conservation and rights of nature. The conception of legal personhood of nature itself and its standing in a court of law has faced certain pragmatic challenges.

Keywords: Biodiversity Conservation, Human Rights, Indigenous Rights, Rights of Nature, Sustainable Development.

Introduction

> *Both matter and life consist of unit structures whose ordered grouping produces natural wholes which we call bodies or organisms.*
>
> - Jan Smuts

In the words of Chief Oren Lyons Jr, Faithkeeper of the Onondaga tribe of the Haudenosaunee nations,

> *There is a hue and cry for human rights, they said, for all people, and the Indigenous people said: What of the rights of the natural world? Where is the seat for the buffalo or the eagle? Who is representing them at this forum? Who is speaking for the trees and the forests? Who is speaking for the fish- for the whales, for the beavers, for our children?*

♣ Assistant Professor of Law, National Law University and Judicial Academy, Assam, e-mail: chiradeep@nluassam.ac.in .

Anthropocentric belief of perceiving every animate as well as inanimate components of the nature, as our property is very firm. Anthropocentrism and property rights provide the foundations of contemporary industrial society, underpinning everything from law and economics to education and religion.[1] Genesis, the Christian creation story, states that "God made humans in his image and granted us dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth."[2] We were instructed to be fruitful and multiply, and replenish the planet and subdue it.[3] However, the evolving philosophical moorings have endeavoured to put humans on the top of the hierarchical chain, right beneath gods and angels, but above all other non-human persons.

In the 21st century, within the framework of strong and continuous improvements in the sustainable development paradigm, under the common actions of states and international organizations as United Nations, nature (environment) and Earth will receive a real, active, legal, internationally recognized personality.[4] Recently there has been a growing movement to grant rights to certain aspects of nature among indigenous tribe and their supporting advocates in the United States as well other places throughout the world.[5] These rights are specifically called 'Rights of Nature', and are essentially a tool being used to grant legal standing to various aspects of nature because of past failures in third party attempts at representing nature in court.[6] This emerging jurisprudence can also be witnessed from the judicial pronouncement of an American case, *Sierra Club* v. *Morton*.[7] This ground-breaking and emerging legal thought has transformed the notion of personhood rights and the ways we have been perceiving our natural ecosystem for long. However, this emerging legal concept is yet to gain the momentum across several legal systems of the globe. By preserving nature, the grant of these rights has led to increased support of indigenous groups who view nature as a vital organ of their everyday lives.[8]

The French Doctrine[9] insists on three dimensions of the idea of 'environment':

---

1 David R. Boyd, THE RIGHTS OF NATURE: A LEGAL REVOLUTION THAT COULD SAVE THE WORLD, 1st ed. 2017, p. 20.

2 *Ibid*.

3 *Id.*

4 Mădălina Virginia, "*Rights of the Nature and Rights of Planet Earth- Towards a Consolidated Regime of ius cogens, in the 21st Century Transnational Law*", LOGOS UNIVERSALITY MENTALITY EDUCATION NOVELTY, SECTION: LAW, Vol. 5 No. 1, 2017, pp. 5-16.

5 Emily Lavang, "*Can We Protect Nature by Giving its Legal Rights*", ENSIA, February 4, 2020, https://ensia.com/articles/legal-rights-of-nature/, (visited on November 20, 2021).

6 Allison McKenzie, "*Rights of Nature: The Evolution of Personhood Rights*", JOULE: DUQUESNE ENERGY AND ENVIRONMENTAL LAW JOURNAL, Vol. 9, 2021, p. 27.

7 405 U.S. 727 (1972).

8 *Ibid*.

9 *Supra* n. 4.

- The first is based on nature (reflecting human interest in solving issues such as biodiversity, climate change, water, seashore, damp areas etc.);
- The second is based on the relationship between human being and everything surrounding him/her (aspects regarding the demography, health, urban life, transports, urban development etc.); and
- The third dimension acknowledged by the doctrine refers to the 'complex relationship among the human being, nature and technology' (or, in a broader sense, the progress of civilization and technologies), covering aspects regarding energy, waste products, pollution, and genetic manipulations.[10]

At the beginning of the 21st century, the environment became a legally active component, subject to the transnational law, thus exceeding the legal quality of 'object', of 'thing' passively, unlimited and unconditionally submitted to the human intervention.[11] The evolution of the international environmental law towards a global law of nature displays a progressive evolution towards the concept of the 'human-nature' relationship (where nature is no longer the 'object' on which the human as owner exercises his/her intervention freely, unlimitedly, unconditionally) and towards changing the model of global society (from the consumerist global society and global free trade, imposed by the interests of the transnational companies, towards enhanced roles of responsibility of the states, citizens, global and regional institutions, for the protection and preservation of nature, as indispensable element of human life and civilization).[12] The most important step is to take the declaration/recognition of the Rights of Nature seriously, beginning with a new scenario for the legal-political thinking and not only by the very presence in other cultures of the concept of the human being as a part of nature, as we have just seen, but because even science (another great invention of Western culture) would have reached a similar conclusion questioning the basic concept of the individual, worthy in itself independent of any social or natural consideration.[13]

Recognizing rights of nature, Ecuador, Bolivia and a growing number of communities in the United States of America are developing their environmental protection policies on the premise that nature has inalienable rights.[14] The idea is based on the proposition that ecosystems of air, water, land and atmosphere are a public trust and should be preserved and protected as habitat for all natural beings and natural communities.[15] This notion is a radical move away from the

10 Marie-Claude Smouts et. al. DICTIONNAIRE DES RELATIONS INTERNATIONALS, APPROACHES, CONCEPTS, DOCTRINES, 2nd ed. 2006, p. 201.

11 Mircea Dutu and Andrei Dutu, DREPTUL DE PROPRITETATE SI EXIGENTELE PROTECTIEI MEDIULUI, 1st ed. 2011, p. 37.

12 *Supra* n. 4, p. 8.

13 Aurelio de Prada Garcia, "*Human Rights and Rights of Nature: The Individual and Pachamama"*, RECHTSTHEORIE, Vol. 45 No. 3, 2014, p. 360.

14 Susana Borras, "*New Transitions from Human Rights to the Environment to the Rights of Nature*", TEL, Vol. 5 No.1, 2016, p. 114.

15 *Ibid*.

conventional assumption of nature as a 'property' and this conventional assumption has fostered the legal dynamics of environmental protection, that also include biodiversity conservation and management laws.

In this milieu, the challenges and prospective solutions pertaining to the transition from anthropocentrism to biocentrism and its application by invoking superior responsibilities upon human beings to conserve and protect biological resources will be the prime element of this literature because the said transition bears several crucial questions on claims as regards rights of nature and how the legal systems can secure the same.

Rights of Nature: The Jurisprudential Standpoints

The recognition of a right of nature represents an integrated, holistic view of all life and all ecosystems and from this perspective, nature becomes not the object of protection but a legal subject: all forms of life have the right to exist, persist, maintain and regenerate their vital cycles.[16] In parallel with this recognition is another: that humans have the legal authority and responsibility to enforce these rights on behalf of nature.[17]

In the aforementioned case law of *Sierra Club*[18], Judge William O. Douglas opined the legal standing of inanimate objects:

> *The crucial question of standing would be simplified and also put neatly in focus if we fashioned a federal rule that allowed environmental issues to be litigated before federal agencies or federal courts in the name of the inanimate object to be despoiled, defaced, or invaded by roads and bulldozers and where injury is the subject of public outrage. Contemporary public concern for protecting nature's ecological equilibrium should lead to the conferral of standing upon environmental objects to sue for their own preservation. This suit would therefore be more properly labelled as Mineral King v. Morton.*[19]

Judge Douglas continued to point that the inanimate objects are also parties in litigation.

> *A ship has a legal personality, a fiction found useful for maritime purposes. The corporation sole- a creature of ecclesiastical law- is an acceptable adversary and large fortunes ride on its cases…So it should be as regards valleys, alpine meadows, rivers, lakes, estuaries, beaches, ridges, groves of trees, swampland, or even air that feels the destructive pressures of modern technology and modern life.*[20]

16 *Ibid*, p. 129.
17 *Id*.
18 *Supra* n. 7, pp. 741-73.
19 *Ibid*, pp. 742-43.
20 *Id*., p. 743.

In similar lines, several jurists and philosophers have drawn their reflections on legal standing of inanimate objects by emphasizing on the rights of the nature. To mention a few of such scholars: Cormac Cullinan (South Africa) Christopher Stone (United States) Godofredo Stutzin (Chile). On the way to draw our analogy in the context of biological diversity, a quick reference to the theories opined by the abovementioned scholars are imperative.

Cormac Cullinan's stance on Earth as Community

The failure of our legal and political systems to recognise the Rights of Nature has enabled humans to create many of the environmental crises now facing us, and in the long term, the fate of our societies will, to a larger extent, be determined by the speed with which we are able to develop and adopt an eco-centric approach to law and governance or 'earth jurisprudence'.[21] In particular, earth jurisprudence embodies the recognition that the behaviour of any one part of a system is largely determined by the functioning of the system as a whole and cannot be understood fully without an understanding of that system.[22]

Cullinan's work refers to the philosophical standpoint of historian Father Thomas Berry, who argued that the universe is the ultimate source of meaning, and that if humans are going to claim that our mere existence of rivers, trees, birds, and bees means that they also have a form of inalienable, fundamental rights.[23] In this connotation, Berry highlighted upon Earth as a community and humans, being an integral part of the same, with ongoing interrelationships with uncountable number of subjects, surrounding it. From this angle, Cullinan noted that the belief of humans as independent entity is highly delusional because they are one manifestation of life on this planet and in that sense, it is appropriate and accurate to regard ourselves as an integral aspect of Earth.[24]

In the context of being a right bearing entity, Cullinan posits that the existence of a legal right signifies that the right bearing entity should be entitled to call upon the court of law, and the state shall ensure the enforcement of such rights. Rights are used as a means of defining those aspects of the relationships between members of the community that the community considers important enough to enforce where necessary.[25] So is it helpful to speak of rights, for say trees, *first*, trees are not legal subjects and therefore are incapable of holding rights, and *secondly*, even if they were, they could not instruct lawyers to seek a legal remedy for any infringement of their rights?[26] There is no doubt that 'rights' are loaded with ideological substances and Cullinan points out that the use of this term in relation to nature

21 Cormac Cullinan, "*Sowing Wild Law*", ENVIRONMENTAL LAW AND MANAGEMENT, Vol. 19, 2007, pp. 71-72

22 Cormac Cullinan, "*Getting Real about Climate Change*", EARTHJURIS, 2003, http://www.earthjuris.org/viewpointdocuments/Wild%20Law-Cullinan, (visited on December 18, 2021).

23 Cormac Cullinan, "*Do Humans Have Standing to Deny Trees Rights*", BARRY LAW REVIEW, Vol. 11, 2008, p. 14.

24 *Ibid*.

25 *Id.*

26 *Id.*

may jar the ear of a lawyer accustomed to using it only to refer to those aspects of the relationships among natural and juristic 'persons' that may be enforced by a court of law.[27] While on the other hand, usage of any other term in place of 'rights' might lead to a relegation of nature's status in contrast to humans. In absence of a remedy with tangible consequences for the defaulter/wrong doer, there will be no positive prospect of the law.

On September 10, 2008, a jury at the honourable Maidstone Crown Court (United Kingdom) acquitted six environmental activists (Greenpeace) of causing 35000 Euros of property damage to the Kingsnorth Coal-fired power station by accepting the contention that the activists had a 'lawful excuse' for their action because the power plant was causing adverse impact (exclusive property damage) upon environment, leading to climate change.[28] This, however leads to two opposing contentions:

On one side *recognizing rights of the nature would mean that instead of environmental activists being pilloried as infringers of property rights, they would rightfully be seen as fighters to liberate Nature from human oppression*.[29]

And on the other side that *the activities of environmental organizations have led to criminal law cases where climate change activism has been used as a defence of criminal activity*.[30]

Coming to the aspect of legal standing, the courts of law from across the globe have adopted stringent parameters. For example in *Lujan v. Defenders of Wildlife*[31], the bench headed by Justice Scalia has escalated the standing requirements for environmental matters. In the dissenting judgment of the same matter, Justice Blackmun describes Justice Scalia's opinion as a '*slash and burn expedition through the law of environmental standing*'. There exists a disparity between environmentalists and industrialists in the cases relating to environmental standing. Despite certain technical obstacles in legal standing, Justice Scalia in *Bennett* v. *Spear*[32] granted standing to industrial groups who were challenging the decision to list a particular species.[33] Justice Scalia further restricted standing in his opinion for the court in another matter of *Steele Co. v. Citizens for a Better Environment.*[34]

---

27 *Id.*

28 Elana Schor, "*In Echo of Kingsnorth Six, US Climate Change Activists Go on Trial*", THE GUARDIAN, October 17, 2008, https://www.theguardian.com/environment/ 2008/oct/ 16/climatechange-energy-activists-dominion11, (visited on November 22, 2021).

29 *Supra* n. 23.

30 Ivano Alogna and Eleanor Clifford, "*Climate Change Litigation: Comparative and International Perspectives*", BRITISH INSTITUTE OF INTERNATIONAL AND COMPARATIVE LAW, http://www.biicl.org/documents/88_climate_change_ litigation_comparative_and_international_report.pdf, (visited on December 4, 2021).

31 504 US 555 (1992).

32 520 US 154 (1997).

33 Section 4 of Endangered Species Act 1973.

34 523 U.S. 83 (1998). Also See *Supra* n. 23, p. 20.

Hence, Cullinan is right in pointing out that the real question is if we as humans, will be able to fix the distortions inherent in our contemporary legal systems that prevent the law from perceiving the reality that members of the earth as a community already bears as we know it as 'rights'.[35] At the very least, it is enlightened self-interest to recognise the reality that if we want to remain part of the earth community, we need to play its rules and respect the 'rights' of the other members and our obligations to them.[36]

Christopher D. Stone and Legal Standing of Nature

Prof. Christopher D. Stone's work on legal standing for non-humans has inspired many, including Cullinan. According to Stone, an entity cannot be said to hold a legal right unless and until some public authoritative body is prepared to give some amount of review to actions that are colourably inconsistent with the right.[37] But for a thing to be a holder of legal rights, something more is needed than that some authoritative body will review the actions and processes of those who threaten it.[38] The holder of legal rights should fulfil three additional criteria. These criteria go towards making a thing count jurally, to have a legally recognized worth and dignity in its own right, and not merely serve as a resource to benefit us.[39] These criteria are:

- The thing can institute legal actions at its behest;
- In determining the granting of legal relief, the court must take injury to it into account; and
- That relief must run to the benefit of it.[40]

Natural environment lacks these legal-operational advantages, leaving the same to a situation, where the humans can (if he/she chooses to) approach court for any damage down to the biological diversity rather the environment itself instituting proceedings itself, for its own recovery, damages being quantified on the basis of its suffering and degradation. This is more like a situation in which pre-natal injury to a live born child gives a right of action against the tortfeasor at the mother's instance, for the mother's benefit, on the basis of the mother's mental anguish.[41]

In furtherance, Prof. Christopher D Stone posits the concept on rightlessness of natural objects at common law. He places three senses:

Where stream is not a right holder

The water bodies/rivers provide the natural ecosystem to several biological resources (aquatic/marine) but independently it has no standing in the court of law. So far as the common law is concerned, there is no way to challenge the polluter's

35 *Ibid.*
36 *Supra* n. 23, p. 21.
37 Christopher D Stone, "*Should Trees Have Standing- Towards Legal Rights for Natural Objects*", SOUTHERN CALIFORNIA LAW REVIEW, Vol. 45, 1972, p. 458.
38 *Ibid*.
39 *Id*.
40 *Id*.
41 *Id.*, p. 459.

actions save at the behest of a lower riparian- another human being- able to show an invasion of his rights.[42] He rightly points out that the conception of riparian as holder of the right to bring suit has more than theoretical interest because in practice, the lower riparian states may also be polluting and not wish to stop legal waters or even dependent on their neighbours for economic purposes.[43] From pragmatic sense, when the lower riparian state discount the value of winning by the costs of bringing legal actions in first place, considering the chances of success, the legal action may not seem worth undertaking.[44]

The way in which merits are decided

At its more primitive levels, the system protected the 'rights' of the property owning human with minimal weighing of any values" '*cujus est solum, ejus est usque as coelum et ad infernos* (To whomsoever the soil belongs, he owns also to the sky and to the depths).'[45] On the same stance of riparian rights, there is a general rule that 'a riparian owner is legally entitled to have the stream flow by his land with its quality unimpaired and observe that an upper riparian owner has, prima facie, no right to pollute the water.'[46] Although, in principle, this doctrine has potential to address issues pertaining to water pollution but it doesn't work in practical sense. However, states across the globe have adopted several varying rules with a common denominator of doctrinal qualification on riparian rights in common. Whether under language of 'reasonable use', 'reasonable methods of use', 'balance of convenience' or 'public trust doctrine'. What the courts are balancing, with varying degrees of directness, are the economic hardships on the upper riparian (or dependent community) of abating the pollution *vis-à-vis* the economic hardships of continued pollution on the lower riparians.[47] What does not weigh in the balance is the damage to the stream, its fish, turtles and 'lower' life because so long as the natural environment itself is rightless, these are not matters of judicial cognizance.[48]

Beneficiary of favourable judgment

This aspect has been illustrated by Prof. Stone in the context of making perfectly good sense to speak of, and ascertain, the legal damage to a natural object, if only in the sense of 'making it whole' with respect to the most obvious factors.[49] In this regard, making a forest whole would encapsulate for example, the costs of repairing watersheds, reseeding, restocking wildlife. Similarly, making a river whole would capture the costs of several activities that includes, restocking the biological resources such as fish, water fowl, cleaning the river bodies,

42 *Id*.
43 *Id*.
44 *Id.*, p. 460.
45 William Blackstone, COMMENTARIES ON THE LAWS OF ENGLAND, 1st ed. 1765.
46 "*Statutory Treatment of Industrial Stream Pollution*", THE GEORGE WASHINGTON LAW REVIEW, Vol. 24, 1995, p. 302.
47 *Supra* n. 37, p. 461.
48 *Ibid*.
49 *Id.*, p. 462.

wetlands, dredging, establishing artificial aerating agents etc. These activities have gradually now been considered as ecological remediation and restoration and damages from such environmental suits should be utilised for the benefit of natural objects itself.

These legal-operational advantages and jural senses of Prof. Stone are relevant and yet not sequestered from hands-on challenges. Theoretical interests and inclination towards rights of nature have encountered real-time hurdles. Although Prof. Stone says that '*it is not inevitable, nor it is wise, that natural objects should have no rights to seek redress in their own behalf and it no answer to say that streams and forests cannot have standing because streams and forests cannot speak.*'[50]

In this background, Prof. Stone points out the Section 1460 of the California Probate Code 2019 which defines an incompetent person as 'any person, whether insane or not, who by reason of old age, disease, weakness of mind, or other cause, is unable, unassisted, properly to manage and take care of himself or his property, and by reason thereof is likely to be deceived or imposed upon by artful or designing persons.[51] Yet, to designate an ecologically sensitive or a biodiversity hotspot as 'a person' in alignment with the said Probate Code will call for lawyers as imaginative and bold to convince the court of law, who was convinced in several matters to designate a corporation as 'a person'.[52] On a parity of reasoning, we should have a system in which, when a friend of a natural object perceives it to be endangered, he can apply to a court for the creation of a guardianship.[53] With the emergence of several environmental activist groups, there has been a growing trend of misusing and abusing the enviro-legal norms in the name of activism. The guardianship approach, although strong is not immune from conflicting interests.

In the scheme of socio-legal connotation, the traditional knowledge bearers, local and indigenous communities dwelling in forest areas or dependent on forest resources have emphasized on livelihood aspect pertaining to biodiversity and forest conservation. The rights of these dwellers have been quite inclusive in legislative frame. The Forest Rights law of India has enumerated such rights of communities which include right to access to biodiversity and intellectual property as well as traditional knowledge related to biodiversity and cultural diversity and any other such traditional right customarily enjoyed by these forest dwelling communities.[54] These norms are more on the anthropocentric side rather than ecocentric one but in many situations, the sacred and aesthetic values of the biological diversity are also highlighted. Even in absence of any codified norms, many indigenous people, ethnic groups and local communities have taken an ecocentric approach by preserving and protecting several forest patches and even individual trees/animals with the belief in nature's worship. In the state of

50 *Id.*, p. 464.
51 Section 1460 of California Probate Code 1971.
52 *Santa Clara County v. Southern Pac.* R. R. 118 US. 394 (1886).
53 *Ibid*, p. 465.
54 Section 3 (1) (k) and (l) of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006.

Manipur, *Meitei* community administers several sacred groves by considering them as pristine. In native language, they regard these biologically diverse sacred groves as *'umanglai'*, which means forest deities.[55] The native communities with traditional knowledge acts as guardians in several efforts to conserve the biodiversity of several ecologically rich, sensitive and fragile reasons. Indigenous guardianship is imperious to conserve, preserve and protect earth's biodiversity. The voluminous report of Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), highlights that indigenous people are guardians of global biodiversity.[56]

With time, the spirit of enviro-legal approach towards biodiversity conservation has also progressively evolved. In *Scenic Hudson Preservation Conference v. FPC*[57], the said conservation group challenged the grant of licence by Federal Power Commission to Consolidated Edison for construction of a hydroelectric project on the Hudson River. Although the said conservation group didn't comply with the traditional claim of personal economic injury out of this licensing, yet the Second Circuit Court, still accepted the contention and directed the Commission to do the needful. On the point of legal standing, the Second Circuit Court noted that S. 313(b) of the Federal Power Act enshrines the right to institute review to any party aggrieved by the decision of the Federal Power Commission and the same is not restricted to the traditional claim of personal economic injury but rather widely covers '*those who by their activities and conduct have exhibited a special interest in aesthetic, conservational, and recreational aspects of power development.*'[58]

The notion of standing and rights of nature have long miles to go ahead to traditional claims. A constructive meaning of rights of nature can only be realised if they are perceived and understood from a value-based perspective which is eventually an integral part of earth's wholesome existence. The physical and mental activities of humans and its material laws have failed to realize and see the planet as something beyond a mass of material substances. Our mechanical lives and our mechanical laws have consistently treated the biological resources as nothing but a congregation of speechless creatures, whose molecular composition makes it a valuable asset for us. We are lagging behind to realize the true meaning of James Lovelock's 'Gaia' or even Arne Naess's 'Deep Ecology'. Just getting the environmental object its 'day in court' is not enough if its own injuries are not going to be measured in the deciding of cases.[59]

---

55 M L Khan, "*Center for the Conservation of Biodiversity: Sacred Groves in India*", http://www.fao.org//3/XII/0509-A1.htm, (visited on December 11, 2021).

56 Victoria Tauli Corpuz, "*Indigenous People Are Guardians of Global Biodiversity - But We Need Protection Too*", REUTERS EVENTS SUSTAINABLE BUSINESS, May 7, 2019, http://www.reuterevents.com/sustainability/indigenous-people-are-guardians-global-biodiversity-we-need-protection-too, (visited on December 11, 2021).

57 354 F.2d 608, 615 (1965).

58 *Ibid*, p. 616.

59 Christopher D. Stone, "*Trees Grow Tall but They Don't Have Standing*", BARRISTER, Vol. 2, 1975, p. 62.

Godofredo Stutzin's on Nature's Claim to Legal Rights

Stutzin stresses upon the progressive right of nature that should go beyond the existing understanding of human rights to healthy environment which would mean that we have recognized the necessity or the convenience of extending the rules of law beyond the realm of relationships among human individuals or groups in order to cover also the relationship between Man and Nature, thus adding a new dimension to our legal system.[60] This brings us to the question of reasoning as why should we strain upon rights of non-humans by such human law, which were enacted by and for humans only. Stutzin answers this question by emphasizing on the fact that humans are integral part of nature and its interest, in a long term and universal perspective, are akin to those of the nature.[61] According to Stutzin, '*considering that these general and permanent interest of Man living within and through Nature are usually better represented by the interest of Nature than by the interests of men living here and now, there seems to be a fairly good case for conferring legal status on Nature herself.*'[62]

Furthermore, he points out that the United States Environmental Policy Act, 1969 enumerates that nature has an identity of her own and that her interests must be protected for the benefit of man who lives in partnership with nature.[63] Thereafter, he also points out the two-fold benefits of widening the scope of law by admitting the rights of nature on:

- Psychological, and
- Technical aspects.

The *psychological impact* of Nature's new status would probably stimulate wider interpretation and stricter enforcement of provisions favourable to the natural environment by properly bringing into focus the ecological side of the picture at the same time it would presumably lead to new legislation based directly on ecological principles and accelerate the trend towards the adoption of universally valid rules of environmental law.[64] The technical aspect on the other hand would give new legal outlook to solve the issues of standing in a court of law by allowing the nature to plead its own matter through authorized representative, either alone or alongside with humans having same interests involved in it.[65]

The argument placed by Stutzin is in similar direction of Cullinan and Stone. He highlights that the human beings would only be a trustee or steward of Nature's estate and they retains the legal ownership over the natural objects. Man's property rights would be subject to the easements demanded by nature who might be

60 Godofredo Stutzin, "*Should We Recognize Nature's Claim to Legal Rights*", ENVIRONMENTAL POLICY AND LAW, Vol. 2, 1976, p. 129.
61 *Ibid*.
62 *Id*.
63 *Id*.
64 *Id*.
65 *Id*.

accorded some kind of eminent domain and a 'natural function' would thus be added to the 'social function' of the property.[66]

On the ground of representation, Stutzin believes that on one end, the autonomous agencies should represent Nature's interests with full power of attorney while on the other, there should be a wide spectrum of Nature's authorized defenders as would be compatible with the normal judicial and administrative procedure.[67]

Hence, from the arguments placed by all these scholars, it is imperative to note that recognition of nature's right would require the human element in it and one cannot in exclusion consider the rights of the nature being protected on its own. Nevertheless, the contexts with which these scholars have positioned their arguments, it is quite clear that the existing judicial and administrative understanding on rights of Nature should go beyond the traditional standpoints of standing.

Linking Biodiversity Conservation with Rights of Nature

It has long been recognized that human domination of the planet compromises the general principles underlying biodiversity.[68] In the beautiful work of land ethic by Aldo Leopold a classic formulation has been propounded. According to Leopold, 'a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community and it is wrong when tends otherwise.'[69] In this book of Leopold, he emphasized on communitarian responsibility to protect nature. Leopold's biotic community represents nature from the top down, as a whole, individual entity.[70] Community plays a key role in the conservation of biodiversity as well. The United Nations Convention on Biological Diversity in its preambular para recognizes the close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components.[71] Leopold's biotic community represents nature from the top down as a whole, individual entity.[72] Here the word 'individuus' can be thought of as taking on meaning from its Latin roots *in*, as to mean 'not' and *dividuus*, the noun form of the verb *divider* 'to divide'.[73]

66 *Id*.
67 *Id*.
68 Bruce A. McKenna, "*Biodiversity: It is the Law of Nature and We'd Better Take Heed*", FEDERAL LAW, Vol. 59, 2012, p. 4.
69 Aldo Leopold, A SAND COUNTY ALMANAC, 1st ed. 1949, p. 224.
70 Mauricio Guim and Michael A. Livermore, "*Where Nature's Rights Go Wrong*", VIRGINIA LAW REVIEW, Vol. 107, 2021, p. 1396.
71 Preamble of the United Nations Convention on Biological Diversity 1992.
72 *Supra* n. 70.
73 Charlton T. Lewis and Charles Short (rev.), William Freund, A LATIN DICTIONARY, 1st ed. 1956; OXFORD ENGLISH DICTIONARY, 3rd ed. 2014.

Thinking of nature as an individual implies that, in some sense, is not divisible: colloquially, the whole is more than the sum of its parts.[74] Leopold's land ethic gives a moral gloss on nature's individuality by calling attention to obligations to the community, rather than to any constituent thereof.[75] This obligation of community in preserving the biodiversity has been enumerated in one way or the other in several legislative instruments but the rights of nature in the context of biodiversity has not been recognized to that wide spectrum.

With some exceptions in place, where the rights of nature have been given constitutional recognition, we are way away from acknowledging them in true sense. The Constitution of Ecuador enshrines nature as *Pachamama*[76], which bears the connotation of a holistic and independent entity.[77] The environmental and animal laws across the nations have taken some steps to recognize the obligations and duties of humans towards non-humans but the same is not the case with the acknowledging the rights of non-human entities. Biodiversity as a whole encompasses within itself, entire genre of animal, plant and genetic resources and if we equate nature's rights on a planetary scale, then the entire biodiversity can be entrusted as an individual right bearing entity.

This aspect will not be immune from procedural and substantive challenges because such equation would draw one pertinent question, i.e., 'if humans can be regarded as an integral part of such biotic community'. If we regard humans as a morally distinct entity, then their contributions to either degradation or preservation of the nature would amount to certain challenges in understanding the implications of policy choices.

Regarding the Biodiversity as a whole might draw the criticism quite akin to that of the classic critique of utilitarianism which treats entire mankind as a collective entity, with each and every individual's moral value quite limited to their contributions to the accumulated whole. Even if persons are merely treated as morally distinct and separate, does it make sense to be concerned with fairness over the distribution of well-being and without fairness loses its normative bite because utility or well-being would simply be interchangeable across persons.[78] Therefore, excluding humans from the 'one-entity as a whole approach' appears to raise additional conceptual issues that does not sustain in the pluralist understanding of natural rights.

Several scholars have considered the rights of nature perspective in the context of biodiversity conservation with special emphasis on global ocean stewardship.[79] With the emerging global concern of climate change and degradation of biological

74 *Supra* n. 70.

75 *Ibid*.

76 This term has been borrowed from the languages of *Aimara* and *Quichua*.

77 Rosaleen E. Howard, "*Pachamama is a Spanish Word: Linguistic Tension between Aymara, Quechua, and Spanish in Northern Potosi (Bolivia)*", ANTHROPOLOGICAL LINGUISTICS, Vol. 37 No. 2, 1995, p. 141.

78 *Supra* n. 70, p. 1398.

79 Harriet Harden Davies et al. "*Rights of Nature: Perspective for Global Ocean Stewardship*", MARINE POLICY, Vol. 1, 2020, p. 122.

diversity, there has been certain legislative and policy orientation to realign human governance system with ecological reality by recognising inherent rights of nature to exist, thrive and evolve, based on a revitalized understanding of the value, role, and interconnectedness of all life on Earth.[80] In this framework, four characteristics of rights of nature have been recognised by several countries in their respective governance systems[81] -

Connectivity

The Constitution of Bolivia under Article 3 enumerates- '*mother earth recognized as a dynamic living system comprising an indivisible community of all living systems and living organisms, interrelated, interdependent and complementary, which share a common destiny*'[82]. Similarly in North Island of New Zealand, *Te Urewera* Protected Area (former National Park) has been recognized as an enduring and ancient fortress of nature with spiritual value, prized as a place of outstanding national value and intrinsic worth, treasured for distinctive natural values and integrity of those values: ecological systems and biodiversity, historic and cultural heritage, scientific importance, outdoor recreation.[83] Again, in New Zealand, the *Te Awa Tupua* river has been recognized as '*an indivisible and living whole, incorporating all its physical and meta-physical elements.*'[84]

Reciprocity

The angle of reciprocal duties, bestowed upon humans have also been recognized by countries mentioned herein. Bolivian law has recognized nature as a collective public interest.[85]

Rights

As mentioned earlier, the Constitution of Ecuador has explicitly cherished the significance of Nature (*Pachamama's*) in Article 71. Bolivia has also enumerated Nature's rights to life, diversity, clean air, water, equilibrium, restoration, pollution free living under Articles 1 and 7. Columbia has recognized its Amazon as an entity, subject to rights and beneficiary of protection, conservation, maintenance and restoration.[86] In India, Uttarakhand High Court's judgment on giving legal personhood to rivers (Ganges and Yamuna) has set a new benchmark and precedential value on India's enviro-legal discourse.[87] The National Environment

80 *Ibid*, p. 2.
81 *Ibid*.
82 Artículo 3 of Estado Plurinacional de Bolivia 2010.
83 *Supra* n. 79, p. 2.
84 *Ibid*.
85 Artículo 5 of Estado Plurinacional de Bolivia 2010.
86 Supreme Court of Colombia "*Luis Armando Tolosa Villabona, Magistrado Ponente*", STC4360-2018 Radicacion No. 11001-22-03-000-2018-00319-01 Bogota, D.C., April 5, 2018, http://www.cortesuprema.gov.co/corte/wp-content/uploads/2018/04/STC4360-2018-2018-00319-011.pdf, (visited on December 12, 2021).
87 *Narayan Dutt Bhatt v. Union of India* 2018 SCC OnLine Utt 645.

Act of Uganda has also recognized the right of nature to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution.[88]

Representation and Implementation

Te Awa Tupua (*Whanganui* River Claims Settlement), Act of 2017 has granted the *Te Awa Tupua* river of New Zealand, a human face by nominating two representatives (one from indigenous community and one from government) with the responsibility to take care of the said river. Similarly in Bangladesh, for the well-being of the *Turag* river,[89] a National River Conservation Committee has been appointed to uphold its rights and power to sue any violator.

Hence, the emerging national legal and policy measures of several countries to reframe the notion of rights of nature perspective could inspire a concrete legislative and institutional mechanisms for international and national community including the policy makers to act reasonably and collectively as stewards in the best interest of the biodiversity. Rights of nature perspective highlights that the components of nature are interconnected and there is interdependence between humans and nature.[90]

Conclusion

The reality of climate change has hit rock bottom and profound environmental ethical notion demands a profound response from laws and policies. Biodiversity conservation laws have emerged as one such dimension which has been professed more on economic side rather than ecological one. Humans are too anxious and too timid for instant and quick success. We have a sense of obligations, yet we choose to bypass the same due to our lack of conscience. Our hopelessly lopsided economic self-interest will fail us and we will be reprimanded by the nature for denigrating the rights of our fellow brothers, sisters and the environment as a whole.

Without further delay, we need to grant legal personhood to natural ecosystems and start perceiving nature as legal subject, rather than legal object. The existing environmental ethics, growing initiatives and emerging judicial trends shows a positive picture for legal rights to nature. The given examples of legislative, societal and judicial approaches in Ecuador, New Zealand, United States, Bolivia, India and Bangladesh have shown new ways towards legal personhood to nature.

Although, this has not been interpreted in the context of biodiversity conservation and management. Indigenous and traditional knowledge of local communities associated with biological resources have been voiced in several forums but linking it with rights of nature has not been highlighted. The duties and rights of the indigenous communities in the legal discourse of biodiversity conservation have been primarily discussed within the ambit of intellectual

88 The National Environment Act 2019.

89 Nawaz Farhin Antara, "*Turag Given 'Legal Person' Status to Save it from Encroachment*", DHAKATRIBUNE, January 30, 2019, https://archive.dhakatribune.com/bangladesh/court/2019/01/30/turag-given-legal-person-status-to-save-it-from-encroachment, (visited on December 11, 2021).

90 *Supra* n. 79, p. 8.

property rights/forest rights etc. However, the scope has not gone up to the extent of nature's rights. The major reason for the same is primarily, in the societal contests of equity, ownership and gratification of accessibility and the claims out of the benefits arising out of commercial utilization of the biological resources. The principal concern of human beings rest in their aspiration to see and enjoy material progress which aims for economic welfare and higher standards of living. In this race to prosper, several human induced activities have been legally justified and permitted, leading to further degradation of biodiversity.

The angle of sustainability in the laws and policies relating to biodiversity conservation is ubiquitous. The search for a unitary and precise meaning of sustainable development is misguided because it rests on a mistaken view of the nature and function of political concepts.[91] The theoretical basis of sustainable development is ambiguous and there is no consensus about its meaning, some argue that it is impossible to implement sustainable development: there are conceptual, political and ethical dilemmas in recasting development activities as sustainable, and then declaring this a new paradigm for human interaction with the environment.[92] The long-term consequences of greenhouse gas emissions and decreased biodiversity have caused researchers to question the notion that economic development inevitably leads to improved environmental quality.[93] Citizens of the planet might support environmental protection out of reverence for the creation of God, out of concern for their descendants, or out of a sheer love of nature.[94]

If the concept of sustainable development is intended to hold humans responsible at all levels, for attaining sustainability and biodiversity conservation, then clear criteria are essential to quantify such compliance. In last three decades, ample ink has been spilled over the concept of sustainable use of biological resources by several lawmakers and policy framers with grandiose promises and enviro-legal languages but least has been done for the interest of the nature. The bare minimum that can be done now is to elevate the rights of nature to newer heights by going beyond the traditional doctrine of economic benefits arising out of biological resources.

***

91 Sumudu Atapattu, "*From Our Common Future to Sustainable Development Goals: Evolution of Sustainable Development under International Law*", WISCONSIN INTERNATIONAL LAW JOURNAL, Vol. 36, 2019, p. 215.

92 *Ibid*.

93 *Id.*, p. 9.

94 Gail E. Henderson, "*Rawls and Sustainable Development*", MJSDL, Vol. 7, 2011, p. 11.

ACCESS AND BENEFIT-SHARING: LEGAL PERSONHOOD OF ENVIRONMENT AND EARTH JURISPRUDENCE

Sopan Shinde[♣]

The Convention on Biological Diversity sets three broad objectives: conservation of biological diversity, sustainable use of its components, and the fair and equitable sharing of benefits arising from the utilisation of genetic resources. However, the Nagoya Protocol overtly advances the third objective while leaving the conservation and sustainable use to likely incentives. This paper argues that in mechanising Access and Benefit-sharing, nature needs to be recognised as a major stakeholder while maintaining an equation among the objectives of the Convention on Biological Diversity. It may appear insipid to see hills, mountains, lakes, forests, rivers, landscapes, and entire ecosystems or nature at large as legal person(s), but the anthropocentric civilization has crossed the threshold to enter the eco-centric era. In the recent past, not only has nature stood in courts around the world but its legal personhood has also received due recognition. The author explores the possibilities offered by wild law and earth jurisprudence, and treatment of nature and environment in ancient Indian texts including Vrikshayurveda, towards conservation and sustainable use of natural resources.

Keywords: Access and Benefit-sharing, Earth Jurisprudence, Legal Personhood, Wild Law.

Introduction

In '*The Descent of Man and Selection in Relation to Sex*' Charles Darwin observed that the awareness of human beings evolves from individual concerns to happiness and well-being of fellow men. Further, man's sympathies became more tender and widely diffused, so as to extend to the men of all races and other useless members of society, and finally to the lower animals.[1] This thought is of a significant value in the precarious contemporary situation that humanity has found itself in due to climate change and global temperature rise; and gradually humans are becoming tender in their sympathies towards all forms of life on the earth. Human beings account for a trifle 0.01% of biomass on the Earth, but they have destroyed 83% of wild mammals.[2] Because biodiversity underpins all life, and the

♣ Assistant Professor of English, Maharashtra National Law University, Nagpur, e-mail: sopan@nlunagpur.ac.in .

1 Charles Darwin, THE DESCENT OF MAN AND SELECTION IN RELATION TO SEX, Vol. 2, 2009, p. 103.

2 Y. M. Phillips, and R Milo, "*The Biomass Distribution on Earth*", PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES, http://www.pnas.org/content/115/25/6506, (visited on November 10, 2021).

wellbeing of humans and all living beings depend on it[3], rise of eco-centric[4] ideas is a much positive change in collective thinking, if not yet in action.

In fact, the human actions in this regard are stuck in a complex web. In international legal and policy scenarios, besides climate change, new technology, globalization of trade, increasing interest of pharmaceutical industries and research institutes in genetic resources and traditional knowledge, overpowering their endorsement for the intellectual property rights related to genetic resources etc., are some events that have generated fears in terms of biodiversity conservation and its sustainable use. Considering the threat of biodiversity loss, international community has made efforts for protection as expressed in the UN Convention on Biological Diversity 1992 (CBD). The rise in the interest of biodiversity of the world became visible towards the close of twentieth century. The CBD has set conservation of biodiversity, sustainable use of biodiversity, and the fair and equitable sharing of the benefits arising from the use of genetic resources as three-fold goals. However, the WTO regime's simultaneous development in terms of the TRIPS agreement has generated a complex conflicting space by encouraging commercial exploitation of biodiversity. The rise in Intellectual Property Rights (IPR) endorsements through research and development in biological resources has further intensified this conflict.[5]

There is a tension between environmental protection *via* the CBD and strengthening of international intellectual property *via* TRIPS[6] as the latter deals with patentability or non-patentability of plant varieties. In fact, the 2001 Doha Declaration broadens the interface as it suggests TRIPS Council to look at the relationship between the TRIPS Agreement and the CBD, the protection of traditional knowledge and folklore.[7] Against the backdrop of this conflict, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits 2010 (the Protocol 2010) provided a framework for fulfilment of the last objective of the Biodiversity Convention: fair and equitable sharing of benefits arising out of the utilisation of genetic resources. The other two objectives; the conservation of biological diversity, and the sustainable use of its components; find a backseat in the Protocol 2010[8] as these objectives are expected to be met by

3 "*Biodiversity and Health*", https://www.who.int/news-room/fact-sheets/detail/biodiversity-and-health, (visited on November 3, 2021).

4 Ecocentrism is a term used by environmental philosophers and ecologists to denote a nature-centered, as opposed to human-centered, system of values.

5 Shivendu K. Srivastava, COMMERCIAL USE OF BIODIVERSITY: RESOLVING THE ACCESS AND BENEFIT SHARING ISSUES, 1st ed. 2016, pp. 1-2.

6 Charles R. McManis, "*The Interface between International Intellectual Property and Environmental Protection: Biodiversity and Biotechnology*", http://nationalaglawcenter.org/wp-content/uploads/2013/06/mcmanis_interface.pdf, (visited on November 3, 2021).

7 Article 27.3(b) of Agreement on Trade Related Aspects of Intellectual Property Rights 2005, https://www.wto.org/english/tratop_e/trips_e/art27_3b_e.htm, (visited on November 3, 2021).

8 Article 1 of Convention on Biological Diversity 1992, https://www.cbd.int/doc/legal/cbd-en.pdf, (visited on November 4, 2021).

way of incentives. The Protocol 2010 clearly states, *Protocol significantly advances the Convention's third objective by providing a strong basis for greater legal certainty and transparency for both providers and users of genetic resources*.[9] The international effort in its very essence is focused on sharing of resources; and conservation and sustainability are left for soft-law or incentive mechanism to achieve. The Protocol 2010 has also stated that it *will create incentives to conserve biological diversity, sustainably use its components, and further enhance the contribution of biological diversity to sustainable development and human well-being*.[10] Thus, it could be safely concluded that the ultimate goal of this international human effort is 'human well-being', primarily and the environmental concerns are secondary.

All deliberations on Access and Benefit-sharing (ABS); access to genetic resources and the sharing of benefits resulting from their use between users and providers; are happening at the cusp of such conflicting space. On one side are the challenges of environmental degradation and the looming threat of biological diversity loss and loss of life at large, and other side a situation of imbalance in treatment of the lofty objectives that international community has set through the CBD. Primarily, the idea of ABS is human centric having a minimal space for eco-centrism by placing environmental interest at the mercy of incentives. The Protocol 2010 took six years of negotiations and what it did is to focus on the commercial practices of the CBD focusing on the resource providers and users[11] working out the supply and demand mechanism to put it in a cruder business terms. That the original supply comes from nature has not found visible acknowledgement in the stakeholder identification, evaluation of stakeholder powers and influence. All legal and business governance aspects and interests of different human and corporate entities are taken into consideration, but the natural sciences that enlighten on status of biodiversity, its health and sustainability, and the need for attention to overall ecological balance disturbed by human chain of production, distribution, and consumption are not given much serious consideration.

Therefore, not just in their intent, but in the vocabulary and the grand narrative, the international instruments concerning biodiversity are overtly anthropocentric. The Supreme Court of India has also observed in *T.N. Godavarman Thirumulpad v. Union of India*[12] that anthropocentric perspective to environment is prevalent and there is a need for movement towards eco-centric approaches.[13] Anthropocentrism is concerned with nature and its components for the consumption of humans, whereas Eco-centrism values nature having intrinsic value of its own. In anthropocentric regime, all rights belong to the legal entities that are either human or human-made, and the eco-centric space is at the mercy of some incentivised

9 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity 2010, https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf, (visited on November 4, 2021).

10 *Ibid*.

11 *Supra* n. 5, p. 282.

12 (1997) 2 SCC 267.

13 *Ibid.*

outcomes as the humans endeavour for their well-being. The developed nations from the West dominate discourses on all areas of global concern, and biodiversity instruments and the discourse as summarised above are no exception. This paper attempts to explore an eco-centric approach to biodiversity and ABS, particularly from an Indic perspective, and argues that if the promotion of earth jurisprudence or 'rights of nature' in favour of all three objectives of the CBD equally is too lofty and idealistic a goal for international human community to achieve, our legal systems could at least recognise juristic personhood of environment and apply it to stakeholder identification in ABS.

Earth Jurisprudence and Rights of Nature:

Cormac Cullinan's *Wild Law: A Manifesto for Earth Justice* inaugurated the shift in consciousness with a space for environmental activism in the western world which was otherwise in the sway of social, economic, political, and cultural movements. However, environmentalism or environmental activism is not sufficient; legal and governance systems around the world need to emulate new ideas to respond to the ecological and social challenges of the contemporary era. At the pace at which major ecosystems of the world are moving towards collapse, mere tinkering with legal systems is not likely to cause any visible change. Therefore, there is a need for transformation *via* jurisprudence wherein principles governing the earth and ecosystems need to be taken into consideration. Thus, rethinking on law and governance from nature or earth perspective is the need of the hour,[14] and earth jurisprudence is evolving as a response to this need.

Earth jurisprudence marks a movement away from the western anthropocentric paradigm and imagines a new earth society. Within anthropocentric legal systems and governance, humans occupy a central position based on their assumed superiority in terms of rationality, moral values, and consciousness as compared to non-human entities. In fact, the anthropocentric vision objectifies nature and its entities and separates it from human beings. Further, the contemporary economic pattern of production, distribution, and consumption aided by development of technology, considers the environmental entities as commodities for human consumption. Earth jurisprudence looks at the possibilities of altering this vision and create more nature centric communities with intention to build a society with human beings and other ecological entities as equal members. Such society is called as Earth Community. Legal recognition of the rights of nature/Mother Earth in Ecuador and Bolivia reflect the practical implications of this kind of philosophy of law or earth jurisprudence.[15]

The western anthropocentric vision has caused enormous environmental degradation, and only in the recent past, the west has started harping on more nature friendly approaches responding to the community of scientists who started flashing warnings to the world. Indian philosophical heritage, on the other hand, entails a spiritual vision with deep respect for nature in ancient times. Trees,

14 Judith E. Koons, "*At the Tipping Point: Defining an Earth Jurisprudence for Social and Ecological Justice*", LOYALA LAW REVIEW, p. 352.

15 Vishwas Satgar (ed.), THE CLIMATE CRISIS: SOUTH AFRICAN AND GLOBAL DEMOCRATIC ECO-SOCIALIST ALTERNATIVES, 1st ed. 2018, pp. 107-108.

animals, rivers, the earth, and other planets are considered deities, and the human life and culture is deeply interconnected with these and other forms of environment. Human beings are a part of living organism and hold no superior status among the other entities of nature. *Vedas* have several instances where the philosophical discourse is centred on sacredness of components of nature and their protection.

The *Atharva Veda* contains *Prithvi Sukta*, Hymn to Goddess Earth, views the earth as a manifestation of goddess and cultivates a respectful attitude towards the environment. Among other thing it states that the Earth is not a non-living, but a living mother. There is a visible consonance of the hymn with modern tenets of ecology. Instead of seeing the earth as a lifeless inanimate object, it projects that the earth is supported by not just gravitational forces, but by truth, consecration, and penance. It can be made into a happy habitat for human only if they live by *dharma* and truth. It also claims that the earth has a self-cleansing nature.[16]

This nature centric approach was reflected in the ways in which legal and governance systems evolved in different periods of Indian history. The stone inscription of Ashoka from third century, provided a check against environment degradation. One of the edicts states, *I have ordered banyan trees to be planted along the roads to give shade to men and animals. I have ordered mango groves to be planted…I have had many watering stations built for the convenience of men and animals.*[17] Ashoka had also banned burning chaff after harvest, the empire maintained forests, fruit groves, botanical and herbal gardens as the emperor believed in state's responsibility to protect and promote the welfare of forests, wildlife and environment. Edicts had also banned hunting of certain species of wild animals, forest; and prohibited cruelty to domestic and wild animals.[18]

Further, Manusmriti also contains messages for conservation of environment and ecological balance. It prescribes fine and penance for injuring trees and suggests not to hurt or injure other creatures. Section 8.285 states, *according to the usefulness of the several (kinds of) trees a fine must be inflicted for injuring them; that is the settled rule.*[19] In this way, not only in philosophy but also in codification of laws, environmental protection was considered.

The Indic consciousness appears to be highly evolved, as there is a greater level of awareness about plant life. It is evident as there existed a science of plants called *Vrikshayrveda* i.e., ayurveda for plants as an independent traditional science of plants life. Based on the philosophy of *panchamahabhuta* i.e., five elements, this

16 "*Atharva Veda*", Chapter 12, p 17, http://library.mibckerala.org/lms_frame/eBook/06%20World%20Religions/Atharva_Veda.pdf, (visited on November 3, 2021).

17 N. A. Nikam and Richard Mckeon (eds.), THE EDICTS OF ASOKA, 1st ed. 1959, p. 64.

18 Sanchari Pal, "*Delhi Smog: Emperor Ashoka Did Something in 3rd Century BC that Our Modern Day Policymakers Can Learn from*", THE BETTER INDIA, https://www.thebetterindia.com/74644/delhi-smog-emperor-ashoka-environment-wildlife-protection/, (visited on November 3, 2021).

19 "*ManuSmriti*", https://ia601301.us.archive.org/23/items/ManuSmriti_201601/Manu-Smriti.pdf, (visited on November 4, 2021).

traditional science is indicative of the philosophical focus in the Indic tradition on the plant life, with deep understanding of physiology and pathology of plants. Salihotra and Surapala wrote the treatise with this name in 400 B.C and 1000. A.D respectively. Through the *vedic* and *post-vedic* texts, there is a correlation between the notion of dharma and the degradation of the earth: as dharma subsides, human beings take to an extravagant attack on the nature.[20] Thus, the Indic legal and governance systems did reflect eco-centric vision and not anthropocentric.

The emergence of earth jurisprudence in the west is a journey towards this eastern indigenous vison from the anthropocentric attitude. It seeks the wellbeing of humans but while acknowledging the fact that humans are part of the earth community and the welfare of all members of the said community is important. Human can survive and flourish if they are regulated as part of the earth community governed by laws of the universe. In other words, earth jurisprudence is nature or environment centric vision of regulating members of the earth community including humans. Further, this jurisprudence is needed because in the modern legal systems, life on earth remains mere property, natural resources are meant to be exploited, bought, and sold as slaves were in the recent past. Under the given anthropocentric legal systems around the world, regulation of human actions is poor and damages the ecosystems and the natural processes on which life depends. For example, the earth's climate has been poorly regulated and resulted in climate change ultimately causing harm to human welfare that is directly dependent on the health of our planet. Research and development in science has made a significant progress in understanding the deteriorating situation of the planet.

For example, James Lovelock's Gaia hypothesis, propounds that earth regulates itself while keeping the atmosphere and average temperatures conducive for life. A community of scientists now believes and declares that the Earth is a self-regulating system made up from all life, including humans, and from the oceans, the atmosphere and the surface rocks.[21] The acceptance of Lovelock's hypothesis can be understood as part of a drift in the scientific world away from a mechanistic understanding of the universe toward the realisation that no aspect of nature can be understood without looking at it within the context of the systems of which it forms a part. Unfortunately, this insight has been slow to penetrate the world of law and politics, and the wild law or earth jurisprudence discourse is beginning to address these issues from the roots. In fact, James Lovelock has claimed that it is beyond the capacity of human beings to address the climate change crisis. According to him one of the main obstructions to meaningful action is modern democracy and inertia of humans is so huge that you can't really do anything meaningful. James Lovelock also emphases that when a major war approaches, democracy must be put on hold and that climate change is as severe as

20 Vasudha Narayanan, "*One Tree is Equal to Ten Sons: Hindu Responses to the Problems of Ecology, Population, and Consumption*", JOURNAL OF THE AMERICAN ACADEMY OF RELIGION, SUMMER, Vol. 65 No. 2, 1997, pp. 291-332.

21 Cormac Cullinian, "*If Nature Had Rights*", ORION, https://orionmagazine.org/article/if-nature-had-rights/, (visited on January 12, 2022).

such a war, though human beings would not be persuaded until there is a serious catastrophic event.[22] Systems of laws and political governance would also keep looking at earth jurisprudence as ideal and idle talk until such time as the need arises for them to suspend the existing systems and look for new ones.

Looking at the contemporary *status quo* legal systems and political governance *vis-à-vis* the ecological imbalance, the fear of biodiversity loss or the catastrophic end of a large number of biotic systems, earth jurisprudence appears to be a philosophical approach that may have some answers to our worries. However, with our head in sand like an ostrich, we are clearly not in a position to acknowledge the dangers and act accordingly. This jurisprudence demands such an overhaul of the entire systems by which we live and govern ourselves, that its application to Access and Benefit-sharing. Those with staunch faith in this kind of philosophy may, like James Lovelock, keep thinking that there will be an event that would suspend most democratic governances from the world around and humanity would be forced to take measures that are inclusive in terms of all forms of life on earth as members of earth community as whole. However, considering the current state of affairs, we need a moderate approach that shall lead to conservation of environment or biodiversity and sustainable use of genetic resources within the human centric legal systems and governance. And, recognition of legal personhood of nature and its components may serve this end.

Juristic Environmental Personhood

One of the ways to attribute a position of a stakeholder to nature and its elements is by means of legal fiction of environmental personhood. A right or duty cannot be defined in absence of the person or persons in whose favour such a right or duty exists, and where such persons do not exist, fictitious ones are conjured into legal reality just like certain characters or values are imagined in solving a mathematical problem. Men, in law and in philosophy are natural persons, but there might be and there are also persons of another sort. In fact, when men come together, act in a particular way, having set a common purpose, they create a body.[23] State, for example, is itself one such body, and corporations have gained legal standing on similar way of jurisprudential thought. The fiction of legal personhood has already been extended to nature and its components in the recent past. This section of the paper evaluates and critiques the notion of legal personhood of environment in the context of their standing as stakeholders in Access and Benefit-sharing.

The Southern California Law Review article, *Should Trees Have Standing?* by Christopher D. Stone, extended the legal fiction of environmental personhood for the first time in 1972. The U.S. Supreme Court Justice William Douglas, few months ahead of deciding Sierra Club lawsuit, happened to be writing the preface

22 James Lovelock, "*Humans are too stupid to prevent climate change*", THE GUARDIAN, March 29, 2010, https://www.theguardian.com/science/2010/mar/29/james-lovelock-climate-change, (visited on January 14, 2022).

23 George F. Deiser, "*The Juristic Person-I*", UNIVERSITY OF PENNSYLVANIA LAW REVIEW AND AMERICAN LAW REGISTER, Vol. 57 No. 3, 1908, pp. 131-142.

to the journal, and cited this article in a dissenting opinion arguing, *Contemporary public concern for protecting nature's ecological equilibrium should lead to the conferral of standing upon environmental objects to sue for their own preservation.*[24] Justice Douglas observed that inanimate parties such as ships and corporations are considered capable of launching litigation, and the same shall be with *valleys, alpine meadows, rivers, lakes, estuaries, beaches, ridges, groves of trees, swampland, or even air that feels the destructive pressures of modern technology and modern life.*[25] He went on to suggest an amendment in the rules of standing to extend them to *all of the forms of life . . . the pileated woodpecker as well as the coyote and bear, the lemmings as well as the trout in the streams.*[26]

This thought provoking turn in thinking about protection of environment within human legal systems took half a century to come to fruition in terms of recognizing components of nature as legal persons. Recently the rights of nature and its components by means of *locus standi* have taken shape into provisions in constitutions, statues, ordinances, and judgments of courts. In a decade's time, New Zealand has started a trend of this recognition: The Te Urewera park in 2014, the Whanganui River in 2017, and Mount Taranaki in 2018 were recognised as legal persons respectively.[27] In India, the Uttarakhand High Court held in *Mohammad Saleem v. State of Uttarakhand*[28] that the Ganga and Yamuna are living entities and legal or juristic persons. Thus, there are numerous instances of nature and its components being recognised as juristic persons. If corporates, which are more fictitious in their composition and being than the tangible forms of nature, could be attributed the status of legal personality, then the latter may also stand the test, though there has been a severe criticism of this trend of legal personhood of environment. Therefore, in the existing legal scenario, the best recourse available is such recognition which in its infancy. Not just a transformation in law, but a massive reform in politics, economics, philosophy, and culture among others, is required for humanity to move from exploiting to respecting nature and the recognition of nature and its components as juristic persons marks the beginning of transformation.

Recognition of rights of nature and its components is absent in debates on deliberations on Access and Benefit-sharing. Stakeholder identification is dominated by human benefit claimers and aspects of environment are not thought of as stakeholders or benefit claimers. A plain application of legal fiction of juristic personhood of environment necessitates an identification of nature and its components as stakeholders. Further, the catchment areas i.e., areas wherefrom the genetic resources are harvested, need to be identified to invest part of benefits directly in conservation instead of waiting for conservation by means of incentives.

---

24 G. Chapron et. al. "*A Rights Revolution for Nature*", CLAWS AND LAWS, https://www.clawsandlaws.org/nature-rights.php, (visited on November 5, 2021).

25 David R. Boyd, "*Recognizing the Rights of Nature*", NATURAL RESOURCES AND ENVIRONMENT, Vol. 32 No. 4, 2018, p. 13.

26 *Ibid.*

27 Kate Evans, "*The New Zealand river that became a legal person*", BBC, March 21, 2020, https://www.bbc.com/travel/article/20200319, (visited on November 4, 2021).

28 *Mohammad Saleem v. State of Uttarakhand* 2016 (116) ALR 619.

In this contexts, it may be an agreeable idea that the local communities and indigenous people close to the genetic resources are actually the caretakers and if the benefits are shared with them, they are more or less likely to conserve the sources of those resources as well as harvest the resources in a sustainable manner. However, there is no guarantee that once the locals or indigenous people expose themselves to the capitalistic cycles of production and consumption, they do not turn to the greed that the modern want based capitalistic model that infatuates human beings to profitmaking.

In this regards, the network of governance which India has created through the Biological Diversity Act 2002 (the Act 2002) has a potential to recognize the rights of nature and use share of benefits in conservation. The Act 2002 is implemented through a three-tier institutional mechanism: National Biodiversity Authority (NBA), State Biodiversity Boards (SBBs), and the Biodiversity Management Committees (BMCs). There are over 2,76,600 BMCs[29] and Section 41(1) of the Act 2002, mandates them to create Peoples Biodiversity Registers (PBRs) of biological diversity in their jurisdiction.[30] Section 41 of the Act 2002 does clearly state the central purpose of the BMCs as *promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of land races, folk varieties and cultivars, domesticated stocks and breeds of animals and microorganisms and chronicling of knowledge relating to biological diversity*.[31] Conservation of biological diversity has been the impelling force of the Act 2002 and Section 27 also obligates creation of a National Biodiversity Fund by NBA and Section 27(2) (b) lists "conservation and promotion of biological resources and development of areas from where such biological resources or knowledge associated thereto has been accessed" as one of the three purposes for which the Fund is to be used.[32] Therefore, the benefit-sharing debates and deliberations within ABS shall go beyond the human benefit claimers and NBA, SBBs, and BMCs shall in the first place ensure that the benefit claimers are seriously engaged in visible sustainability and conservation efforts; and secondly, they shall invest in scientific research towards conservation, plenitude and abundance, and sustainable use of the resources.

These may be some possibilities emanating from legal recognition nature and its components in ABS deliberations that tend to tilt towards socio-economic development of benefit claimers from areas wherefrom resources are accessed. In this context, there is a popular tendency of bringing in the notion of Corporate Social Responsibility (CSR) in ABS domain particularly taking into consideration the socio-economic development. If the legal personhood of environment and its

29 "*Biodiversity Management Committees in States*", NATIONAL BIODIVERSITY AUTHORITY, http://nbaindia.org/content/20/35/1/bmc.html, (visited on February 5, 2022).

30 "*Implementation of Nagoya Protocol on Access and Benefit Sharing India's Experience*", NATIONAL BIODIVERSITY AUTHORITY, http://nbaindia.org/uploaded/pdf/Implementation%20of%20Nagoya%20Protocol%20in%20India.pdf, (visited on November 3, 2021).

31 The Biological Diversity Act 2002.

32 *Supra* n. 18.

components becomes an accepted jurisprudence, Corporate Environmental Responsibility (CER), though within the domain of CSR, could assume a stronger position in how the role of corporates is seen in relation to environmental protection. Though CER and CSR are connected to one another as far as environmental protection is concerned, the latter is strictly about the considerations of environmental protection within corporate strategy. Further, recognition of rights of nature and its components would also provide a clearer path for setting up incentives and disincentives as once the rights are accorded, their violation becomes a punishable offence. Therefore, within the so called anthropocentric legal systems, and though it would not seem enough to the environmentalists and environmental activists, this course of action promises more concreate results in terms of conservation of biodiversity and sustainable use of genetic resources.

Conclusion

ABS is primarily anthropocentric as it emerges and functions within the human made legal systems wherein humans are hold superior to all forms of life. Considering the environmental degradation, climate change, and the alarming situation, there are two approaches with which the representation of nature and its entities could be made in the ABS discourse: by acknowledging the juristic personality of nature and its components or by overvaluing the entire anthropocentric governance and taking to earth jurisprudence. The latter is a much ideal vision for humanity to take at this stage, and it might cause a great havoc to the entire system of laws and governance; and at the same time whether human beings are really evolved enough to understand all aspects of nature to create wild law and earth jurisprudence driven systems is also in a state of oblivion. This approach may not seem to be of realistic significance at this stage, though the courts may take its tenets and principles while deciding the issues in the interest of environmental protection and ecological balance. However, the application of the notion of juristic personhood of environment in ABS, subsequent identification of components of nature as benefit claimers *via* their representation through environmental activists and government bodies, shall serve a direction towards sustainable use and conservation of genetic resources in particular and environmental conservation in general. However, whether the pressing question is that of legal recognition only? Is such legal fiction of any value or necessity for nature to hold the right to unhindered survival? These and similar pressing questions, raised by Akshita Jha and Adrija Ghosh[33], bring out the limitations of the legal fiction within human legal systems and political governance wherein nature is object and not subject. Although it is a very crucial development for environment law, the idea of legal personhood of environment or nature lacks clear reasoning in legal context to build an eco-centric model for nature to possess rights

33 Akshita Jha and Adrija Ghosh, "*Is Being a 'Person' Essential for the Environment to Hold Rights? Assessing The Legitimacy of Environmental Personhood and Alternative Approaches*", NUJS LAW REVIEW, Vol. 11 No. 3, 2018, http://nujslawreview.org/2019/05/01/is-being-a-person-essential-for-the-environment-to-hold-rights-assessing-the-legitimacy-of-environmental-personhood-and-alternative-approaches/, (visited on November 26, 2021).

and a mechanism to enforce them. Which environmental units or entities from nature shall have the rights? What are these rights and are they the same as rights of human beings and other entities having legal standing? Who shall qualify to be the guardians of these rights and represent entities of nature in the courts of law? On the top of all these questions is also an ambiguity that surrounds harm: what actions shall be considered as harm to nature or its entities? Who shall decide and on what criteria?[34] Therefore, assigning juristic personality to the entities of nature may be considered a mere beginning that brings 'rights of nature' into legal discourse. There is a need for development of ecological jurisprudence and its inception in anthropocentric jurisprudence and legal systems: an approach that seeks to deal with violation of rights of environment by human beings and human entities such as states and industries, is limited to anthropocentric jurisprudence and legal systems. Comparatively, earth jurisprudence is radical and may even appear unrealistic and impractical as it tends to revise the existing anthropocentric *status quo* to create earth centric laws and jurisprudence.

***

34 *Ibid.*

HUMAN RIGHTS AND BIODIVERSITY: A CONCEPTUAL ASSOCIATION

Gade Mallikarjun[♣]

Abstract

The Earth is currently undergoing sixth mass extinction as per UNEP (United Nation Environment Programme). The major cause of loss of biodiversity is human activities caused by pollution, climate change, invasive alien species, etc. The international community has taken initiatives to conserve the biodiversity through implementation of various International Treaties and Conventions. However, non-compliance of these treaty provisions by many countries causes an alarming situation. The paper tries to establish a relationship between the environment and human rights as the quality of the life of human beings, their physical and mental health, requirement of adequate food, water and sanitation, etc. Therefore, preservation of biodiversity becomes necessary to protect and promote the basic Human Rights and hence, there is a need to share the responsibilities of conserving the biodiversity by all countries.

Keywords: Access and Benefit-sharing, Biodiversity, Human Rights, Nagoya Protocol.

Introduction

Over the last few decades, one can clearly see unequal access to natural resources and environmental biodiversity, both amongst the developed, as well as the underdeveloped nations in the world. This has led to an acknowledgment of the innate relationship between human beings and the environment by the international community that has resolved to achieve two fundamental objectives: 'ensuring proper protection and enjoyment of human rights' and 'overcoming the problem of implementation of the contemporary biodiversity laws across the globe'.

In 2016, World Wildlife Fund cautioned the international society about the reckless decline of 68% in the population of wildlife species due to over-exploitation of natural forests as well as the rapid urbanisation of countries.[1] This has led to a huge development in the search for consistency in the current biodiversity laws.

The International Convention on Biological Diversity, 1992 (CBD) has affirmed that the states must take appropriate measures in order to curb the reckless deforestation and industrial clearances of forests for the purposes of protecting and

♣ Assistant Professor of Law, National Academy of Legal Studies and Research University of Law, Hyderabad, e-mail: gademallik@yahoo.com .

1 *Amy Woodyatt*, "*Human Activity Has Wiped Out Two-Thirds of World's Wildlife Since 1970*", CNN, September 10, 2020, https://edition.cnn.com/2020/09/09 /world/ wwf-report-species-decline-climate-scn-intl-scli/index.html, (visited on November 22, 2021).

promoting the rights of indigenous tribal groups along with population of endangered species of plants and animals.

The non-compliance of environmental measures by many countries as prescribed by the UN has led to an alarming situation where the degree of human induced degradation of the ecological resources has surpassed the limits of mother nature.

Thus, the UN Special Rapporteur has advised the international community to recognize the adverse impacts of increasing rates of pollution, global warming, deforestation, etc. upon the living conditions of the people located in third-world countries. The wide-ranging implications of the loss of biodiversity must be curbed by taking strict actions against the countries that continue to disobey the international standards of environmental protection. This is necessary because the natural consequences of the degradation of biodiversity must be shared equally by all the inhabitants of mother Earth. The same has been recognized in various international instruments.[2]

Protecting Human Rights through Conserving Biodiversity

Biodiversity, essentially the diverse forms of life on Earth, is a pre-requisite for well-functioning ecosystems. Loss of biodiversity, as a result of habitat loss and over-exploitation, is increasing up to ten thousand times faster as compared to that of millions of years ago, owing to the rapid expansion of population and largely unsustainable consumption practices. The Inter-governmental Science Policy Forum on Biodiversity and Ecosystem Services undertook a global survey;[3] identifying major threats across the world to biodiversity. The report clearly observes that population growth is a significant driver of biodiversity loss[4] and the conservation of biodiversity is important to protect human rights. The root cause of stress on ecosystem and biotic extinctions in the world undoubtedly remain humans. Pollution, over-exploitation, introduction of alien species and landscape transformations are just a few of the negative pressure exerted by human beings on biodiversity. Similar to the impact of the asteroid nearly 65 million years ago, the impact of humans on terrestrial, aquatic and marine life quantifies the scale of extinction of biodiversity.

Oceans make up three-quarters of the Earth's surface and seemingly this may appear to protect oceanic organisms and life against any major anthropogenic disturbance, in comparison to terrestrial and freshwater species. Yet, as Jeremy Jackson notes from the evidence compiled from four major marine realms including estuaries and coastal areas, open ocean pelagic zones, continental shelves and coral reefs, even marine ecosystems are under extreme duress owing to the

2 Article 1 of the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters 1998, https://unece.org/DAM/env/pp/documents/cep43e.pdf, (visited November, 22, 2021).

3 "*The Global Assessment Report on Biodiversity and Ecosystem Services: Summary for Policy Makers*", IPBES, https://ipbes.net/sites/default/files/inline/files/ipbes_global_assessment_report_summary_for_policymakers.pdf, (visited on November 22, 2021).

4 "*Biodiversity*", POPULATION MATTERS, https://populationmatters.org/biodiversity, (visited on November 22, 2021).

often-synergistic effects of overfishing, introduction of new species, habitat destruction, warming and acidification, nutrient run off and toxins.[5] As a result, there has been degradation of the diverse marine ecosystems, erstwhile characterized by complex food webs dominated by abundant top-echelon predators, into simplified biotic communities which are capped by smaller animals, microbes and algae. The collapse of the economic viability of numerous marine fisheries and the degradation of coral reefs, which once rivalled tropical rainforests in matters of spatial coverage and richness of life are among the many ramifications of the loss of biodiversity. The data mapped out paints a disturbing picture about the current and future ecological state of the oceans across the world.

Industrial Development and Its Impact on Biodiversity

Industries that are involved in manufacturing-packaging based enterprises tend to develop a reliance on adjacent ecosystems such as rivers, river beds and lakes. These ecosystems are utilised by the aforementioned industries for their resources - this utilization may also become exploitative as the same ecosystems are used as dumping sites of liquid and solid waste. While certain manufacturing sectors employ renewable and biological raw materials[6], others may use plant genetic resources that are often derived from traditional knowledge sources, their domain extend to use in agriculture, biotechnology as well as pharmaceuticals. The kind of relationships these industries enter into with local genetic resource systems can be varied across the board. It is crucial to evaluate them in a comprehensive manner to holistically understand the exchanges that occur between extracting industries and the ecosystems which they affect.[7]

International supply chains of raw materials have become so complex in a globalised world that production-based entities often have little or no knowledge of the activities of their supplier, the negative externalities generated by them as well as the source of the plant genetic resource are being used. Such dependencies may be indirect but they are crucial for the sustenance of many sectors. Manufacturing entities that are dependent on ecosystem-based services such as food and textiles will invariably feel the impact of resource scarcities as compared to that of technical sectors which depend more on partially finished goods that arrive through an expansive network of supply chains.[8]

---

5 John C. Avise et. al. "*In the Light of Evolution II: Biodiversity and Extinction*", PNAS, https://www.pnas.org/content/pnas/105/Supplement_1/11453.full.pdf, (visited on November 22, 2021).

6 Biological raw materials like food, fibers, etc.

7 "*Biodiversity Mainstreaming in the Manufacturing and Processing Sector, Convention on Biological Diversity*", CBD, https://www.cbd.int/doc/c/b23c/f96f/93d4a6e1f9d48a55f9e287a4/sbi-02-04-add4-en.pdf, (visited on November 23, 2021).

8 For instance, securing sustainable supply chains due to the concerns/needs of retailers and consumers has become a critical issue for manufacturers of textiles (securing the supply of specific skins for luxury leather manufacturing), cosmetics (securing the supply of specific plant materials), food (securing oils that are deforestation-free and fish from sustainably managed fish stocks) and furniture (deforestation-free supply chains).

Convention on Biological Diversity: The Initiatives for Conservation

According to the Article 2 Para 1 of the abovementioned convention[9], the term 'biodiversity' has been constructed in an expansive manner, in order to provide safeguards against the exploitation of the ecosystems across the globe. Moreover, several regulations have been introduced in an effort to shield sizeable human rights related to the environment. The reason for enacting environmental legal guidelines *via* international corporations is to defend the collective rights of people and the future generations. Procedural rights include the right to have access to records, the right to participate in selection-making, and the right to access to justice. These rights may be located in both environmental as well as human rights devices, as they safeguard human as well as environmental rights and also defend the herbal surroundings.

There are several instances of man-made extinction of flora and fauna such as:

- excessive harvesting of particular commercial species of economic value through widespread cultivation as plantations;
- introduction of aggressive species of exotic vegetables and fruits in the food chain which are causing novel diseases;
- releasing environmental pollutants due to industrial wastage, which inevitably results in the phenomenon of climate change, knock-on effects from extinction of essential companion species due to plastic wastes and disposing off toxic chemicals in the water bodies; and
- over exploitation of natural resources like harvesting crops faster than the original stocks can replace themselves.

However, in certain situations, states also have to appreciate human rights in different international locations when activities inside their own territories or jurisdiction affect the entertainment of human rights extraterritorially. Under international law, failure to control environmental nuisances or to shield the environment can also intrude into human rights. The connections between healthy ecosystems and freedom to completely realise human rights may only be possible when there is a proper equilibrium between the contemporary environmental exchanges.

The conceptual link drawn between international human rights and environment protection laws is necessary for the harmonious fulfilment of the sustainable development goals of the nations. The rights-based approach[10] towards the environmental problems of depletion of ozone layer, rising water levels in the seas and oceans due to global warming, migration of environmental refugees etc. is of prime concern to everyone. The freedom of individuals to secure their human rights to life and enjoyment of natural resources by the adjudication of their concerns in the international forums and other public tribunals must be duly

9 Article 2 of the Convention on Biological Diversity 1992.

10 Puneet Pathak, "*Human Rights Approach to Environmental Protection*", OIDA INTERNATIONAL JOURNAL OF SUSTAINABLE DEVELOPMENT, Vol. 7 No. 1, 2014, pp. 17-24.

recognized by the changing socio-political and environmental landscapes of the globe.

Human Rights and Environment: The Interdependency

Environmental protection is a political and moral movement that seeks to improve and protect the natural environment from harmful human actions by adopting forms of political, economic and social actions that are necessary or at least conducive to the early treatment of the environment by humans in different ways. Clean and natural environment is necessary for human safety and for the better enjoyment of basic rights such as the right to have unpolluted air, water and food for sustaining life.[11]

Even though development is necessary and inevitable, it needs to be planned in a way that it is sustainable by minimising the adverse effects on environment with the help of science and technology, encouraging afforestation, reducing the use of chemical land pollutants, etc. Therefore, enjoying the full range of life on earth is only possible when the environment is unpolluted. In this context the observation of David R. Boyd[12] is worth mentioning "There is now global agreement that human rights norms apply to a broad spectrum of environmental issues, including biological diversity (the full range of life on Earth) and healthy ecosystems."

The interrelated concepts of social, economic and environmental measurements that directly impact the choices of the individuals existing within certain ecosystems. The public international law aspects of the 'Environmentalism of the Poor' jurisprudence[13] specify a definitive role to the adjudicatory mechanisms and regulatory bodies to ensure the assimilation of the 'vulnerable' groups into the society. The climate serve as one of the fundamental human necessities as the scope of the term includes the substantive human rights of the individual such as the right to livelihood, the right to food security, etc. The ecological implications of one's surroundings intricately determine the survival and structure of his daily existence and thereby, his basic rights over the environment cannot be alienated by the coercive and oppressive instruments of the state at any cost.

The normative underpinning of asserting the regime of human rights into the wider discourses of international environmental law is necessary to identify the community of human beings as a unified 'group' responsible for the actions and thereby, their impending consequences without the possibility of 'floatation of responsibilities' on others. The primary goals of a welfare state must be to ensure the basic rights of the individuals such as 'right to work' which is inclusive of the

11 Mahtab Alam Quddusi, "*Environmental Protection and Human Rights – How to Protect Human Rights and Ecosystems*", THE SCIENCE WORLD, March 10, 2019, https://www.scientificworldinfo.com/2019/03/environmental-protection-and-human-rights-how-to-protect-ecosystem.html, (visited on November 23, 2021).

12 David R. Boyd, THE ENVIRONMENTAL RIGHTS REVOLUTION: A GLOBAL STUDY OF CONSTITUTIONS, HUMAN RIGHTS, AND THE ENVIRONMENT, 1st ed. 2012.

13 Ramachandra Guha and Joan Martinez Alier, VARIETIES OF ENVIRONMENTALISM: ESSAYS NORTH AND SOUTH, 1st ed. 1997.

elements of food, clothing, shelter, healthcare etc. These duties and responsibilities of the state are enhanced in the face of growing rates of commercialisation, globalisation, and industrialisation in the society.

In order to bend the curve of biodiversity loss, it is essential to bend the curve of inequality. It can be achieved by equitable sharing of benefits of the environment to all, including the future generations. It has been suggested by many reports[14] that through proper recognition of the rights of indigenous people and local communities, who are nurturing biological and cultural diversity in their daily lifestyle, the biodiversity crisis may be solved in the future. Human beings are a part of the nature and their basic subsistence rights are intricately tangled with the sustenance of the environment they live in. Therefore, understanding the innate relationship between human rights and the environment is essential towards its protection and subsequent preservation.

Preservation of Biodiversity to Protect and Promote Human Rights: A Conceptual Background

A human being devoid of a 'healthy and clean' environment is not going to exist. Human beings will not exist since all life forms depend upon the environment which offers right to live, food, water, disinfection, air, land, etc. This clearly reflects that most human freedoms are directly derived privileges of existence in an ecosystem or indirectly, human rights are environment-specific privileges. Human freedom and natural law function autonomously, but normatively, they have a very close association with each other. So, sustainable environmental governance works corresponding to the regime of human rights, and the two are reciprocal and corresponding concepts that normatively coincide in the discourses of international human rights jurisprudence dealing with the matters of unalienable and natural rights of human beings.

The Resolutions of the International Union for the Conservation of Nature, which is the largest international organization for nature conservation, which has members from 170 countries, including states, governments and non-governmental organizations and has significant influence on the international legal framework towards the development of international standards for conservation purposes.

Apart from the above basic human rights conventions, to conserve the biological diversity so as to promote the human rights, the other international conventions and treaties have been adopted, which are mainly intended to ensure the preservation of biodiversity to prevent the collapse of the natural ecosystem to ensure the fullest possible for human life without foregoing rights of the present and the generations to come. Thus, it was rightly observed by Michelle Bachelet[15] in this regard and is worthy enough to mention here:

> *Climate change is a reality that now affects every region of the world. The human implications of currently projected levels of global heating are catastrophic. Storms are rising and tides could*

14 United Nations Declaration on the Rights of Indigenous People (A/RES/61/295).

15 Opening statement by the UN High Commissioner for Human Rights Michelle Bachelet at the 42nd session of the Human Rights Council.

> *submerge entire island nations and coastal cities. Fires rage through our forests, and the ice is melting. We are burning up our future – literally.*

The aspect of protection of the environment and the associated biological diversity has found mention in a number of international treaties and conventions. Among the various instruments executed in this regard, two stand out: the Convention on the International Trade in Endangered Species of 1973 and the Convention on Biological Diversity of 1992. These two instruments are authoritative texts on the management of various natural resources, especially flora and fauna in a sustainable manner. A supplementary agreement to the CBD, the Cartagena Protocol on Biosafety espouses the cause of organic diversity with the help of Residing Modified Organisms through the advancements in biotechnology. Furthermore, the Convention on the Conservation of Migratory Species of Wild Animals of 1979 seeks to protect the wild animals that migrate outside the national boundaries.

The modern state must be single-handedly responsible for limiting the scope and extent of environmental exploitation being caused by the legislative policies and executive interventions. In accordance with the spirit of the Rio Convention, 2021[16] that marked the different spectacles of sustainable development being adopted within the UN agenda, essentially three categories of development were laid down - economic progress, social progress, environmental protection. The Rights of Indigenous Peoples, 2007: The international human rights Declaration that specifically addresses the rights of indigenous people against violations and environmental wrongs committed by multi-national actors, it also specifies the need for the preservation of the ecosystem.[17]

The environment is the requirement for people, and they ought to recall this while progressing forward in their method of indicated advancement. People should comprehend their natural obligations towards the environment, its significance for their perseverance, and subsequently, work on the ideals of preservation and protection of the environment. At the same time, it is the obligation of the state to execute public and worldwide laws at the ground level in their domains.

The State Parties must consent towards perceiving health as a public interest, and especially, to take on the accompanying measures to guarantee the (a) right to primary healthcare i.e., fundamental healthcare made accessible to all people and families locally; (b) extension of the advantages of health administrations to all people subject to the state's locale; (c) widespread inoculation against the central irresistible illnesses; (d) prevention and treatment of endemic, word related and different infections; (e) education of the community on the issues of counteraction and treatment of health issues, and (f) satisfaction of the health needs of the most deprived groups which fall within the category of poverty-ridden 'vulnerable' groups.

16 United Nations Conference on Sustainable Development, Rio+20 (A/CONF.216/5).

17 *Supra* n. 14.

Post-2020 Global Biodiversity Framework

The post-2020 biodiversity framework is initiated with a vision of living in harmony with the nature in order to achieve the goal of equal human dignity with the increased responsibility towards espousing the practices of sustainable development and growth. It is to be achieved by 2050.

The vision of living in harmony with nature by 2050 will be achieved only when the modern society understands its role in relation with the nature and conserve biodiversity in order to protect the human rights to have a clean, healthy, safe and sustainable environment, not for the present generation but also for the future generations. In conservation of environment, the indigenous groups and ethnical communities and their indigenous ideas hold different worldviews, values, ethics and spiritual beliefs that embody and guide our complementary connections with the rest of the earth and this gives an impetus to conserving the environment. Thus, beside international laws, every nation has to come up with organized laws with respect to environment insurance, forests control etc. and at the same time, due attention must be given to the knowledge of indigenous people and their artistic rights which consists of indigenous knowledge in the field of terrain conservation.

Post-2020 framework is focused upon the collective actions needed to properly address the systemic challenges arising from the adverse consequences of climate change and ecosystems degradation. The "rights-based approach" and the "rights of nature" must be explicitly incorporated into human rights-based approaches for the successful culmination of the objectives of the post-2020 global biodiversity framework. The plan builds on the Strategic Plan for Biodiversity 2011-2020, hence intended to implement broad actions to study the effects of climate change on the human society and bring out significant inferences regarding the human relationship with biodiversity and the present society. It also points out the immediate need for transformation in the society to ensure harmony between the elements of human nature and the biological ecosystem.

This grand vision of living in harmony with nature by 2050 will require transformation of modern society's relationship with nature in order to recognize and address the innate human rights to a clean, healthy, safe and sustainable environment. The post-2020 Global Biodiversity Framework is an opportunity to enable transformational changes through the diverse spectacles of human rights-based approaches. The transcendental changes may require the human consciousness to rise above the capitalistic imagination of the Earth, and move towards a holistic approach of combining the core concepts of 'human-rights' and 'biodiversity'.

Conclusion

The wide-ranging implications of the loss of biodiversity must be curbed by taking strict actions against the countries that continue to disobey the international standards of environment protection because the natural consequences of the degradation of the earth must equally be shared by all the inhabitants of the Earth.

A multitude of constitutions across the world along with various regional human rights instruments (such as treaties, accords, etc.) constitute an inalienable and universal right to a healthy environment. They stand proof to the essential nexus between the realm of human rights and that of the environment. Lately, advocates of human rights are increasingly taking up issues of environmental protection into the ambit of protection of human rights

Conclusively, one must understand that the efforts of the environmentalists worldwide have been aimed at improving the quality of life of human beings that is inevitably dependent upon the preservation of their biological ecosystems. The adverse consequences of industrialization and globalization have led to the grave reversals in weather systems, flooding of low-lying areas due to global warming etc. The recognition of the significant relationship between human rights and biodiversity by the UN is a pioneering step towards the achievement of sustainable future goals of human development.

***

ACCESS AND BENEFIT-SHARING: A JURISPRUDENTIAL REVISIT

Shanmugham D. Jayan[♣] *and Veena Roshan Jose*[♠]

Abstract

The Rio Conference on Sustainable Development, 1992 resulted in the formulation of various international documents for promoting sustainable development, along with the Convention on Biological Diversity, (CBD) 1992. The CBD is dedicated to promote sustainable development and it recognised that biodiversity is a common concern of humankind. The CBD deals with the conservation of biodiversity at all levels: ecosystems, species and genetic resources. The Nagoya Protocol 2010 (the Protocol 2010), which supplements CBD aims at sharing the benefits arising from the utilisation of genetic resources in a fair and equitable way. The Protocol 2010 establishes a framework that helps researchers access genetic resources for biotechnology research and development. The phrases 'fair and equitable sharing of the benefits' and 'arising from their utilisation' are interesting because of their indeterminacy. In this research paper, the authors try to specifically analyse these two phrases, and to demonstrate that there is an element of uncertainty with respect to the phrase 'permission for access to genetic resources'. The jurisprudential understanding of the concept of property is discussed and the concept of Access Benefit-sharing (ABS) is dealt in the light of jurisprudential analysis of the concept of property.

Keywords: Access and Benefit-sharing, Biological Diversity, Nagoya Protocol, Proprietary Rights, *Specificatio*.

Introduction

The Convention on Biological Diversity, 1992 (CBD), is drafted with three objectives, *viz.*, conservation of biological diversity, sustainable use of its components and the fair and equitable sharing of benefits arising from the utilisation of the genetic resources.[1] Based on this, after a series of negotiations, a supplementary agreement known as the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation, was adopted on October 29, 2010, in Nagoya, Japan, and hence the

♣ Advocate, Kochi, Kerala, e-mail: youdei@gmail.com .

♠ Assistant Professor of Law, Maharashtra National Law University, Nagpur. e-mail: veenaroshan@nlunagpur.ac.in .

1 "*Convention on Biological Diversity, Key International Instrument for Sustainable Development*", UNITED NATIONS, https://www.un.org/en/observances/biological-diversity-day/convention, (visited on January 7, 2022).

name.[2] The aim of the Protocol 2010 is to further the third objective of the CBD, i.e., the fair and equitable sharing of benefits arising out of the utilization of the genetic resources.[3] Out of the 132 States that have ratified the Protocol 2010,[4] many have brought in policy, legal and regulatory arrangements based on the mandate provided in the Protocol 2010. These arrangements are required for bringing in a predictable condition for access to genetic resources.

On a perusal of the title of the Protocol 2010, certain aspects are glaringly prominent. The phrases 'fair and equitable sharing of the benefits' and 'arising from their utilisation' are interesting to be noted because of their indeterminacy. There is an element of uncertainty with respect to the so-called 'permission for access to genetic resources'. To clarify further, there is the concept of 'access to genetic resources', by one party, and on the one side, and there is a benefit which is accrued to another party. However, while determining the quantity and quality of the so-called 'benefit', one can see there is the inclusion of certain terms which are highly indeterminate in character. The phrase 'fair and equitable' is used in a legal context, and the same is contextual. While discussing the phrase 'arising from their utilisation', one can understand that there is lack of clarity regarding the outcome of utilisation. Thus, from the title of the Protocol 2010, it can be inferred that there is no certainty with respect to the outcome of the access provided by one party to another, rather, what will be the result of the use of shared genetic resources is not settled at the time of grant of such an access.

Transfer of Genetic Resources *vis-à-vis* Accrual of Proprietary Rights

The certainty of value, or at least the probable range of value of something is a necessary concern with respect to an agreement of contractual nature wherein two parties apply their minds and meet at one point where they agree. This meeting of minds is a pre-requisite of an informed agreement so that the parties know the probable consequences at the time of agreement. The larger idea of agreements, other than those which are purely personal in nature, is likely to be concluded with some objective in relation to the property.

From the plain reading of the Protocol 2010, it is clear that there is a lack of clarity in determining the 'value' of what has been transferred, which is reflected in Article 3 of the Protocol 2010.[5] The phrase 'benefits arising from the utilisation of such knowledge' makes it apparent that at the time of transfer of genetic resources,

2 "*Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation*", CONVENTION ON BIOLOGICAL DIVERSITY, https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf, (visited on January 7, 2022).

3 *Ibid*.

4 "*Parties to the Nagoya Protocol*", CONVENTION ON BIOLOGICAL DIVERSITY, https://www.cbd.int/abs/nagoya-protocol/signatories/, (visited on January 8, 2022).

5 Article 3 of the Nagoya Protocol 2010 states that: *This Protocol shall apply to genetic resources within the scope of Article 15 of the Convention and to the benefits arising from the utilization of such resources. This Protocol shall also apply to traditional knowledge associated with genetic resources within the scope of the Convention and to the benefits arising from the utilization of such knowledge*.

the absence of knowledge on the probable value of the genetic resource in question. The absence of knowledge of the probable 'value' was a concern that was attempted to be covered by the Protocol 2010. While laying down the reasons for the importance of the Protocol 2010, it has been mentioned that the same will create greater legal certainty and transparency for both providers and users of genetic resources establishing more predictable conditions for access to genetic resources and by helping to ensure benefit-sharing.[6] Thus, facilitating transfer of genetic resources is the aim of the Protocol 2010 and from a jurisprudential angle the same is thus boiling down to the transfer of proprietary interests over a property.

Modes of Acquisition of Proprietary Rights

An analysis of any literature which details the concept of property and its attributes, demonstrates that the transfer of proprietary interests is possible only by following limited means. The four ways in which proprietary rights get accrued on a person are 'possession', 'prescription', 'agreement' and 'inheritance'.[7] Thus, the means of establishing a connection between a 'person' and a 'thing' can be done only through these four means.[8] The classical Roman law of property rests upon the very similar concepts of *'accessio', 'specificatio'*, and *'occupatio'*.

Out of these four ways, three are the creation of law, whereas the concept of possession can be considered as 'pre-legal'. The idea of possession is 'pre-legal' in the sense that such a connection between a 'thing' and a 'person' was in existence even before the idea and structure of law came into existence. When the idea of law and various legal concepts were developed, the concept of possession was also accepted into the framework of law. The possession of a 'thing' is considered to be important and to a great extent, almost all legal systems consider it to be an indication of ownership. Simultaneously, the concept of *res nullis* also got a position in the essential requirements of possession when the legal determinants were established. The possession of a 'thing' is never accepted by the legal system if the said 'thing' is an object of proprietary right of someone else. In the pre-legal system, since the concept of property was not there and hence no need for such an idea because possession means control of a 'thing' by a person or persons. In the absence of the concept of property, anything which is capable of being possessed or something being possessed by someone is not generally linked with anyone else.

In the second mode of acquisition of property, i.e., through prescription, the time lapse of some sort of relationship between a 'thing' and a 'person' gradually generates an element of proprietary right over the same. This is a legal creation and is basically driven by the idea of convenience, and hence it can be treated as 'not disturbing a settled position'. It seems that since the aim of law initially was to bring in a pattern and to avoid chaos, the fact that where there is a pattern which is already existing, it is institutionalized by law. The major contribution of law, in this

6 "*The Nagoya Protocol on Access and Benefit-sharing*", CONVENTION ON BIOLOGICAL DIVERSITY, https://www.cbd.int/abs, (visited on January11, 2022).

7 Stephen Munzer, A THEORY OF PROPERTY, 1st ed. 1990.

8 *Ibid.*

regard, is that the law prescribes the duration for the creation of proprietary rights as valid.

The third mode of acquisition of property is by agreement. In this context, the transferability element of proprietary right is at crescendo. The owner of a 'thing' is being given the right to decide how to dispose of it, rather, there is absolutism in the context of the connection between the 'person' and the 'thing' that the person is even permitted by law to sever the said connection and to link the same to another person. In a layman's understanding, this is nothing but the transfer of a 'thing' by sale. The most important aspect here is the legal capacity of the person or the owner to implement his will. The owner is consenting to transfer the ownership to the person who intends to buy the same. In that process, the seller agrees to sever the connection with that 'thing' and the intended buyer agrees to accept the connection with the 'thing', which is the subject-matter of sale. Consent of parties is the predominant factor that is reflected here. The law with respect to this mode of acquisition of proprietary rights is the most important and the frequently utilized one.

The fourth mode of acquisition of property, i.e., inheritance is the legal acceptance of, or respecting the intention of a deceased person with respect to his proprietary rights. In this method, the law prescribes that something which was owned by someone could be transferred to someone else, if the person wished to do so. It has been done according to the wish expressed by the deceased person prior to his death. Therefore, in this mode of acquiring property, the law provides for the concept of legal heirs, who can step in and can inherit the properties of the deceased person. Here, the property is transferred to the persons who are considered in law as eligible for the heirship. In addition, law provides liberty to a person to decide what has to be done with his proprietary right. Here, the proprietary right is devolved based on the legal provisions or owing to the interest expressed by the deceased person before his death.

Therefore, all types of proprietary rights are accrued by a person through any one of the aforesaid four methods. On analysis, it can be identified that the jurisprudential or philosophical additions or explanations that developed hitherto only tries to explain or theorise these methods of accruing of proprietary rights. Similarly, specific laws are also enacted to detail these methods of accruing proprietary rights or limiting the scope of these methods.

Jurisprudential Analysis of Access and Benefit-sharing

From a perusal of the relevant Articles of the Protocol 2010, it can be seen that the transfer of genetic resources comes within the scope of the third mode of acquisition, i.e., agreement. The Protocol 2010, provides that the idea of access to genetic resources for their utilization and also states that the same shall be subject to the prior informed consent of the party providing such resource.[9] The ingredients

9 Article 6(1) of the Nagoya Protocol 2010 states that: *In the exercise of sovereign rights over natural resources, and subject to domestic access and benefit-sharing legislation or regulatory requirements, access to genetic resources for their utilization shall be subject to the prior informed consent of the Party providing such resources that is the*

of such a mode of acquisition is present in the scheme provided in the Protocol 2010. There is a requirement for the presence of a minimum of two parties, one from whom the genetic resources are being sourced and another who receives the same. With a superficial reading, the Protocol 2010 takes care of the generally required ingredients of the agreement mode of acquisition of property, such as the requirements of knowledge, consent, etc. Coming to the aspect of consideration, which is generally an essential part of a consensual transfer, the same is mentioned in the Protocol 2010 subject to the only variation that at the time of transfer, the 'value' of the 'thing' which is transferred is not capable of being determined.

Indeterminate Value: The Ancient Roman Example of the Concept of *Specificatio*

In the context of the concept of proprietary rights, there is a minimum expectation that the owner of the proprietary right is aware of the scope of the right that he is holding. The term 'scope' yields to the concept of 'value' when the discussion is in economic terms. Thus, the owner of a proprietary right is expected to agree for any alteration of that proprietary right knowing very well about the value of the property. This is as expected under the larger concept of law of contract because the consensus requires a well-informed mind. Fundamentals of law of contract requires completion of a contract only when the consensus is contemplated between the parties. Similarly, in the case of acquiring proprietary rights by prescription, possession and inheritance also, there is an understanding that the holder and or receiver of the proprietary right should have an understanding of the 'value' of the same.

Whenever there is an accrual of proprietary right not by any of these means, such accrual is not acceptable to the legal system. It is to be noted that the possession is the sole way that relies on the factual matrix predominantly over the jural aspects. However, as mentioned earlier, if there was an already existing holder of a particular property, and if it is in the possession of a new owner, then such possession is not accepted by law. However, if the property was not possessed or unattached or *res nulius*, the same is capable of accrual of proprietary by the first method. It is interesting to note that multiple jurisprudential theories explain the logic or reason behind such an acceptance. Thus, the discussion with respect to the accrual of proprietary rights, on a philosophical level, are more in this mode of acquisition rather than the other three. The jural justifications about a factual narrative basically tries to convert a factual matrix to a jurally fortified factual matrix. With respect to the other three modes of acquisition, the law creates the said modes and brings in the conditions for the same. However, in the mode of acquisition through possession, the law only takes note and accepts the existing reality into the legal structure and hence does not lay down conditions for acquisition through possession.

The jurisprudential explanation about the scope of accruing possession and nullifying the same in the context of a prior existence of proprietary right or rather

---

country of origin of such resources or a Party that has acquired the genetic resources in accordance with the Convention, unless otherwise determined by that Party.

the absence of *rus nullis* tries to elevate the legally prescribed modes of acquisition to an elevated position. Thus, the advantage is that, all the possessions which were pre-legal could easily be continued; however, all possessions that are post-legal ought to clear the test of *res nullis*. In this context, another legal concept, known as *Specificatio,* that was adopted in Roman law will be of interest.

Specificatio, literally means specification and it is considered as a mode of acquisition with respect to something over which there is prior ownership which is in existence. In Roman context, the term denoted the emergence of a new species from an existing one. The idea behind this could be exemplified by a narrative. Suppose 'A' was having a block of marble over which he was having proprietary rights. That marble was taken in possession by 'B', but not in a legally recognized manner. 'B', a sculptor created a sculpture out of that block of marble. Now the question is, who has the right over the sculpture? Here, if the concept of possession or any other three means of acquisition of this block of marble by 'B' is analysed, it can be seen that the only one which is applicable is the first mode through possession. However, the condition with respect to the same is not favorable to 'B' because 'B' has acquired the marble block from 'A', who was having proprietary rights over the same. Thus, such a mode of disposition, being not that of *res nullis,* is not recognized under law. Therefore, 'B' can never have the right over the marble block. However, presently there is no marble block in existence, hence a reversion is not possible as it has already been taken the shape of a marble sculpture.

Now, suppose some quantity of bronze was taken in possession by 'B' that was originally owned by 'A' and 'B' is converting that to a statue the same method that was adopted for the marble statue may not work. With respect to the marble statue there is no scope for reversion, however, with respect to the bronze, it is not the case. The Roman law showed a lenience to 'B' whereby 'B' had been instrumental in bringing out a new species out of the existing one. Here even if 'A' was dispossessed by 'B' in an illegal manner, 'A' might be eligible for damages for the loss of his possession and 'B' might be liable for the offence of theft. Nevertheless, the owner of the sculpture will be 'B' alone.

This is an interesting narrative which does not necessarily fit into the standard approved jurisprudential models of accruing of proprietary right over a 'thing'. With all probabilities, this Roman idea would have been the accepted concept because of the nature of the issue involved. It is interesting to note that there can be a tendency to bring in the labour theory[10] to justify this. However, the concept *specifcatio* does not focus on 'A' or 'B', but concentrates on the block of marble *vis-à-vis* the statue. The high degree of respect that the Greco-Roman philosophy bestowed on art and artists might have also led to such a conclusion. When this is looked from the perspective of 'B', it shows the rudimentary attributes of the labour theory. However, in the context of labour theory also the idea of commons is a prerequisite but *specificatio* is inconsiderate to the same.

10 John Locke, TWO TREATISES OF GOVERNMENT, 1st ed. 1821, p. 209.

Another aspect that might have influenced, hence could be used as justification is the difference in values between the dispossessed property and the emerging one. As discussed earlier, the scope of the right or in its economic terms, the 'value' of the property is a facet identified as understood in all three modes of legal creation of interlinkage between a 'person' and a 'thing', rather the three modes of acquisition of property identify the importance of value and its interlinkage with the persons between whom the properties change hands. It can be argued that with respect to inheritance by way of a Will, an ignorant beneficiary may be taken by surprise, however he is also expected to know the 'value' of the property involved. In the case of *specificatio,* the newly emerging species is having a value which is never within the comprehension of the original owner of the thing that is converted into a totally new 'thing'. Rather, the change in species as well as the change in value is something which is in the hands of the person who is converting the thing in question to something else. At least whatever be the change, the same is happening when the 'thing' was in the possession of the second person.

Access and Benefit-sharing under the Nagoya Protocol

While analysing the provisions of the Protocol 2010, it can be observed that there is difficulty in identifying the scope of the 'value' of the resources that have been shared. There is also a difficulty in identifying the value of the benefits that may accrue by the transfer of genetic resources. In this context, there is a requirement to analyse the relevance of the above readings into the fundamentals of property acquisitions. However, at the time of grant of access to the resources by the party providing the same, there is absence of any understanding about the scope of the benefits of utilization of the shared resources. On the other hand, the party who has acquired the said resources is also lacking the rights over such resources at its disposal. Thus, they are comparable to examples of 'A' and 'B' as in the case of *specificatio*. 'B', the sculptor is lacking the proprietary rights over the marble block and whereas, 'A' the owner of the marble block is unaware of its actual value.

Unlike the example of 'A' and 'B' from the Roman era, the party providing the resources and the party acquiring the resources are Nation-States of the modern world, and are expected to act only in a prescribed manner, and not like 'A' and 'B'. Similarly, owing to the indeterminate nature of resources at disposal, both the parties are not in a position to come down on agreeable terms because of the absence of this vital information. Thus, the scenario that resulted in the creation of such a protocol is well reasoned. The Greco-Roman fascination towards art and artists is taken over by the potentiality of scientific and technological utility. Therefore, there is a need to ensure that the carving of the sculptor 'B' of the modern era is satisfied. This intensity of carving gets more owing to the fact that the parties or the Nation-States who require that the resources are scientifically and technologically on an improved footing and in a position to dictate terms on a global perspective.

Thus, the necessary fallout is drafting of such a protocol whereby the arrangement ensures proper recognition to the parties who give the genetic resources even though the 'value' of the same is uncertain at the time of such

transfer of such resources. It is in this context, the relevance of the title of the protocol becomes important. As mentioned earlier, the two phrases used in the title of the Protocol 2010, 'fair and equitable sharing of the benefits' and 'arising from their utility' tries to equitably contain the indeterminate possibilities. Thus, the result of the utilization of the shared resources or rather the benefits accrued as a result of the sharing of the resources fixes the quantity of reciprocity. It needs to be noted that in conventional acquisition of property, the 'value' of the transfer of the proprietary right is more or less identifiable or identified at the time of such an acquisition. However, in the objective of the Protocol 2010, such a determination is absent and *quid pro quo* is impossible at the time of sharing of the genetic resources. In the context of *specificatio* also, this imbalance of the resultant benefits is tilting the scale to the advantage of sculptor 'B'. Through the Protocol 2010, what is achieved is a *specificatio* with fixed guarantee that the user of the possessed 'thing' will reciprocate equitably. Based on that assurance, the provider of the resources gets the inclination to part with the resources.

Conclusion

Article 5 of the Protocol 2010 mandates the State Parties to bring in legislative, administrative and policy measures so as to ensure that such genetic resources are properly reciprocated with even indigenous and local communities and in a fair and equitable manner. Article 5 of the Protocol 2010, also refers to the sharing of benefits and the nature of benefits which are narrated in the Annexure to the Protocol 2010, which is titled as "Monetary and Non-Monetary Benefits". The benefits are divided into the heads of monetary and non-monetary and it provides almost all possible means of benefits, which are narrated. In addition, it specifically states under both the heads that the narrated benefits are not exhaustive.

Article 6 of the Protocol 2010 refers to the requirement of consent, which is an abundant precaution and it is to be noted that here the consent is to be granted by the members of the local community and the concerned nation-states are under an obligation to make appropriate legislative, administrative and policy measures. Article 18 of the Protocol 2010 is also important in this context wherein even the choice of law and the redressal of dispute is covered.

Reading together these three Articles *viz.*, Articles 5, 6 and 18 indicates the ensuring of the larger jurisprudence with respect to the modes of acquisitions of property. At the same time, the concept of *specificatio* is getting imbibed into the jurisprudence of Access and Benefit-sharing under the Protocol 2010 thereby ensuring that on a theoretical and philosophical level, the acquisition of proprietary benefit is well founded.

***

FOSTERING ABS THROUGH INDIAN CSR POLICIES: A TALE OF TWO TREATIES

Meghna Mishra[♣]

Abstract

On becoming a signatory of the Convention on Biological Diversity as well as Nagoya Protocol on Access and Benefit-sharing (the Protocol 2010), India took a progressive step to have an effective implementation of Access and Benefit-sharing in the country. It aims to distribute benefits arising from genetic resources between their users and providers. These international guidelines help countries in designing their own national frameworks for effective Access and Benefit-sharing. In India, an additional framework apart from Biological Diversity Act 2002 (the Act 2002), indirectly deals with protection of biodiversity through the provisions related to Corporate Social Responsibility (CSR) contributions under the Companies Act 2013. However, these provisions leave the scope for the companies to focus on selected areas like education and healthcare, etc. The author analyses the International biodiversity treaties and recognises its nexus with legal mechanism for CSR in India. Further, it examines CSR legislation in the light of its impact on effective implementation of Access and Benefit-sharing in India. Finally, it provides the future roadmap to ensure fair and equitable Access and Benefit-sharing through effective implementation of CSR.

Keywords: Access and Benefit-sharing, Biological Diversity, Corporate Social Responsibility, Corporate Sustainability, Nagoya Protocol.

Introduction

Development has been paramount in the last few decades. The human race has reached great heights and corporates are growing exponentially. India has gained a lot from this development and has become a hotspot for business. One of the factors contributing to this growth is the dependency on genetic and natural resources. "All living organisms; plants, animals and microbes, carry genetic material that could be potentially useful to humans"[1] are termed to be genetic resources. Not only do they give an insight into the functioning of the natural world, they are also integral in curating a variety of products and services essential for human survival. Effective use of these resources can be instrumental in the growth of a country. However, similar to the most resources, genetic resources are also not divided equitably.

♣ Student, Symbiosis Law School, Hyderabad, e-mail: meghna_mishra@student.slsh.edu.in .

1 The Convention on Biological Diversity 1992.

This inequitable division of resources gives rise to the concept of Access and Benefit-sharing (ABS). In simple words, ABS is "the fair and equitable sharing of benefits arising out of the utilization of genetic resources."[2] In order to further the countries' understanding on the subject matter and to ensure more equitable distribution of genetic resources, Convention on Biological Diversity (CBD) was initiated. This was the first, but not the last international treaty on ABS, to which India was a party. In 2014, India became a signatory to the Protocol 2010.

Despite advancing the country's interest in the protection of biological diversity, by signing these two treaties, India has not taken concrete steps to implement ABS on a domestic level. The two international treaties present international ABS goals, demand effective national implementation of the same. In pursuance of the same; in India, the Biological Diversity Act was enacted in 2002 and the Rules were notified in 2004. India has also entered into approximately one hundred ABS agreements till date.[3] Another domestic legislation indirectly dealing with the contribution of fund towards ABS as a component of environment through CSR is Companies Act, 2013 (the Act, 2013).

However, the lack of knowledge surrounding the subject for the general public and the lack of detailed legislations directed at ABS have led to its fragmented growth. While the CSR policies could lead to effective implementation, the vague nature of the policies makes it less effective. Under the CSR Rules, companies are supposed to set aside a mandatory sum for CSR. The Act, 2013 does not specify a particular area to spend upon, but instead proposes various thematic areas that CSR projects can be based upon. It means that the corporates have an option to not devise CSR on biodiversity projects. The existing CSR policy gives option to the companies to use these policies in furthering the objectives of the CBD and the Protocol 2010.

Due to little awareness of ABS and its benefits, there are a few CSR projects focused on it. Further, the thematic areas covered under the Act merely mention ecological preservation, instead of specifying ABS. There is minimal effort undertaken by the Indian government to foster ABS in India. While there are ABS projects undertaken on a regular basis, they are conducted on a smaller scale. Thus, the objectives of the Protocol 2010 and CBD fall short while executing the same. Through this paper, the author takes a deep dive into the nexus between corporate sustainability and ABS, while marking the role of CSR in the same. Further, the author studies the journey from the CBD to the Protocol 2010, and its impact on India's implementation of the ABS.

---

2 "*Access and Benefit-sharing (ABS)*", BIODIVCANADA, https://biodivcanada.chm-cbd.net/access-and-benefit-sharing-abs, (visited on November 1, 2021).

3 "*National Biodiversity Authority*", ACCESS AND BENEFIT-SHARING EXPERIENCES FROM INDIA, http://nbaindia.org/uploaded/pdf/ABS_Factsheets_1.pdf, (visited on November 1, 2021).

Decoding the Postulation of Access and Benefit-sharing

As of 2021, there are around 8.7 million species in existence. Among this, India proudly houses a whopping 8.1% of this global biodiversity, despite only having a modest 2.4% of land area. Being home to "96,000 species of animals, 47,000 species of plants and nearly half of the world's aquatic plants"[4], India has a responsibility to make effective utilisation of the same in a sustainable manner. India is among one of the 12 mega diverse countries in the world as pledged by United Nations Development Programme (UNDP).[5] The distribution of these genetic resources is highly unequal, which poses a problem considering their importance. Further, the extraction of these resources depend on plants, animals, and other organisms which formulate delicate ecosystems that can have grave implications, if disturbed.

ABS can be described as a method or way in which these genetic resources can be 'accessed' and how to 'share' the 'benefits' that result from them. This arrangement is often between the party providing the resources, referred to as 'providers', and the party using these resources, referred to as 'users'. Each country has a sovereign right over any genetic resource that may be found on its territory. It is the belief of many countries, such as the European Union (EU) that "when benefits arise from research or development on genetic resources, including when it leads to the commercial use of a developed product, these benefits should be shared fairly and equitably with the country providing these resources."[6]

Generally, both the parties build Mutually Agreed Terms (MAT) which is based on Prior Informed Consent (PIC). As the term implies, PIC refers to a competent national authority's permission for the users to access the provider's genetic resources. It is pertinent to note that the PIC must comply with relevant domestic legal framework. In order for ABS to take place, it is necessary to prove the presence of MAT and PIC in accordance with Article 15.[7] Another important part of the ABS process is the knowledge of 'National Focal Points' which undertake the responsibility of providing a transparent platform for users to gain accurate information about the ABS process, contact details and regulatory requirements etc.

Genetic resources are not only significant in medical research and environmental innovation, but also present a multitude of avenues to explore. Taking into account how important these resources are, countries should get a chance to utilise them in a more equitable fashion than what the natural distribution

4 "*India Biodiversity Awards, 2018*", UNDP INDIA, https://www.in.undp.org/content/india/en/home/climate-and-disaster-reslience/successstories/IBA2018.html, (visited on November 2, 2021).

5 *Ibid.*

6 "*Sharing Nature's Genetic Resources – ABS*", EUROPEAN COMMISSION, https://ec.europa.eu/environment/nature/biodiversity/international/abs/index_en.htm, (visited on November 2, 2021).

7 *Supra* n. 1.

intended. The concept of ABS was introduced to conserve and utilise these resources in a sustainable manner. Further, ABS, in turn of providing genetic resources, also provides adequate motivation for the countries to engage and support sustainable development.

Interconnection Between Access and Benefit-sharing and Corporate Social Responsibility

The mandated CSR expenditure by the companies as stipulated by the Act, 2013 has paved the way for the country to adopt corporate sustainability. Currently, "ensuring environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, agro forestry, conservation of natural resources and maintaining quality of soil, air and water"[8] are the only biodiversity ecological thematic areas which the Act, 2013 mentions. In addition to this, there are a plethora of thematic areas that are focused on activities like education, health care, women empowerment, etc.

While each of these thematic areas is significant in their own regard, protecting and promoting biodiversity is the need of the hour as we fall deeper into the climate crisis.[9] The wide array of choice amongst these thematic areas takes away the corporate's focus from biodiversity projects. Further, the CSR Rules[10] do not mention contributing funds specifically for any biodiversity project that would foster ABS projects. This further deepens the current crisis.

There is a great potential to utilise corporate spending for biodiversity projects. As of 2019, "The contribution of CSR in India towards biodiversity is nearly 3% of total CSR expenditures and there is immense potential to enhance this contribution".[11] The continued degradation of biodiversity is not just a concern for environmentalists, but should be a priority for multiple stakeholders. This impending doom not only threatens the existence of a carefully balanced ecosystem, but also increases business risk. Contributing to ABS and other related biodiversity projects would also ensure the longevity and sustainability of the corporates.

Increased and consistent investments ensure that the ecological balance is not ruptured and the scales do not tip in the wrong direction. Economic growth will only benefit the country if it complements the ecological growth. In this regard, it becomes paramount to ensure sustainable advancement of a company, instead of reckless magnification. A significant factor towards this is UNDP-The Biodiversity

8 Principle 3.1 of Corporate Responsibility Policy 2020.

9 "*What is Climate Change? A Really Simple Guide*", BBC NEWS, October 13, 2021, https://www.bbc.com/news/science-environment-24021772, (visited on November 12, 2021).

10 *Supra* n. 1.

11 "*Promoting Private Sector Corporate and Social Responsibility for Biodiversity in India*", BIOFIN, November 29, 2019, https://www.biofin.org/news-and-media/promoting-private-sector-corporate-and-social-responsibility-biodiversity-india, (visited on November 12, 2021).

Finance Initiative's (BIOFIN) efforts towards CSR investment opportunities towards biodiversity conservation and management in Maharashtra.[12]

This has led to many local companies coming forward to participate enthusiastically in this discussion, and shared the sustainable initiatives taken by them. This is a competent but a minor step taken on a local level. There is an urgent need to take concrete steps to witness a considerable change.

Journey from Convention on Biological Diversity to Nagoya Protocol

The requirement to protect the biodiversity was witnessed in the inception of the CBD which is recognized as the worldwide known instrument for "*the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources*"[13], ratified by 196 nations through the working of the instrument, the member countries sought to build a sustainable future.

While the CBD had a general objective to conserve biological diversity and to promote sustainable use of the components of the same, one of its major objectives focused on ABS. The instrument was built to promote the idea of promoting the sharing of fair and equitable benefits that arise from genetic resources and their benefits.

The CBD has been reportedly successful in achieving its goals and targets. However, the time scale of achieving the same has not been extremely impressive. The speed of working on the implementation of the CBD is not in synchronisation with the accelerating climate crisis and the decline in the biodiversity levels. All the UN member states, except USA are member to the CBD. These parties have successfully adopted the Global Strategy for Plant Conservation (GSPC) and several other Protocols in furtherance of their goals. They have also worked with organizations like International Union for Conservation of Nature (IUCN) on projects "supporting the implementation of the Strategic Plan for Biodiversity 2011-2020 and its Aichi Targets"[14]

The CBD has also engaged in collaborating with several UN organizations to shed light on the benefits of ABS. This has also resulted in creating engagement with relevant stakeholders and the promotion of mainstreaming biodiversity. Despite these consistent efforts, certain member countries lack "effective cross-

12 Rita Pandey et. al. "*Biodiversity Conservation in India: Mapping Key Sources and Quantum of Funds, Updating India's National Biodiversity Action Plan*", NIPFP, July 21, 2020, https://www.nipfp.org.in/media/medialibrary/2020/07/WP_311_2020.pdf, (visited on November 4, 2021).

13 Braulio F Dias, "*The Slow but Steady Progress in the Implementation of the Biodiversity Agenda*", IUCN, July 31, 2020, https://www.iucn.org/news/world-commission-environmental-law/202007/slow-steady-progress-implementation-biodiversity-agenda, (visited on November 20, 2021).

14 "*Convention on Biological Diversity (CBD)*", IUCN https://www.iucn.org/theme/global-policy/our-work/convention-biological-diversity-cbd, (visited on November 20, 2021).

sectorial dialogue and coordination mechanisms, with prevailing sectorial policies and agencies still working in silos, often with conflicting and competing policies and without benefiting from potential synergies"[15] While it is irrefutable that the implementation of the CBD has led to member countries to make substantive reformations domestically, the overall impact of the same has not been complementary to the level of the goals of the international treaty.

To further realise the goals of the CBD, the Protocol 2010 was introduced. Unlike its predecessor that focused on all-round conservation of biological diversity, the Protocol 2010 was mainly focused on facilitating and promoting ABS. Contrary to popular opinion, the Protocol 2010 did not replace CBD, but was a supplementary agreement of the same. Instead of setting up new, contrary agendas, the Protocol worked extensively on furthering these agendas and their implementation, majorly focusing on the equitable sharing of genetic resources' benefits.

Through the working of the Protocol, transparency and legal certainty increases for both the providers and users of the genetic resources. It establishes 'predictable conditions' which makes genetic resources more accessible. The unequal distribution of the same poses a major hurdle for the development of most countries. This is significant in the case of developing and underdeveloped countries that are already at a disadvantage due to their financial status. Thus, the Protocol 2010 creates incentives to conserve genetic resources and use them in a sustainable manner in a way such that the conservation of biodiversity is enhanced. This also aids in maintaining the gentle balance of the ecosphere in which exists a symbiotic relationship between human development, biodiversity, and technological advancements.

The Protocol 2010 has set out certain 'core obligations' for the member states that would enable them to adopt measures for ABS and also related compliance. Under the Protocol 2010, the member states also include research development on the biochemical composition of genetic resources. The commercialisation of genetic resources, research and the benefits arising from the same. As a member nation, India has always been at the forefront to implement the CBD and the Protocol 2010. With an extensive biodiversity in the country, India has a major stake in bringing the objectives of the treaties to a reality. Whether it is the enactment of domestic legislations or encouraging corporates to contribute the same through CSR, India has sustained her commitment to the Protocol 2010. Further, in 2017, India also submitted a "National Report on implementation of the Protocol which provides valuable information on India's national and trans-boundary initiatives on Access and Benefit-sharing."[16]

15 *Supra* n. 13.

16 "*Implementation of Nagoya Protocol on Access and Benefit-sharing; India's Experience*", NBA INDIA, http://nbaindia.org/uploaded/pdf/Implementation%20of%20Nagoya%20Protocol%20in%20India.pdf, (visited on November 22, 2021).

The journey from the CBD to the Protocol 2010 has been essential for the effective implementation of ABS and subsequent biodiversity CSR projects. However, India's efforts on a domestic level still have a long way to go, on a statutory level and in other fields as well.

Impact of Corporate Social Responsibility on Implementation of Convention on Biological Diversity and the Nagoya Protocol

Businesses are dependent on biodiversity for their long term survival. Right from the production to the distribution, corporate houses require healthy ecosystems for their healthy growth. This is especially significant in certain businesses such as agribusiness which heavily rely on water quality, soil porosity, air pollution levels and several other external factors. Despite the heavy reliance, the unprecedented growth of these corporates often harm the biodiversity.

The corporate entities that are destroying the biodiversity can also be part of restoring the same. The vast resources that corporates have at their dispense, offer significant opportunities for biodiversity conservation and innovative projects. The importance of the private sector in meeting the conventions' three main objectives through multi-stakeholder partnerships and industry-driven initiatives has also been highlighted in the CBD.

In India, this type of corporate contribution is measured through CSR projects that have to be mandatorily undertaken by corporate houses in pursuance of the Act, 2013. There have been notable CSR projects that have contributed to the preservation of biodiversity, however currently, the negative impact of these corporates supersede the positive impact of their CSR projects. "Current negative trends in biodiversity and ecosystems will undermine progress towards 80% of the assessed targets of the SDGs, related to poverty, hunger, health, water, cities, climate, oceans and land."[17]

In this regard, it becomes clear that the diminishing biodiversity levels and the impeding climate crisis is no longer an environmental issue but has direct and permanent effects on corporates, their survival and their growth. A negative shift in the ecosystem can affect the corporate by threatening cash flow, among other unmanaged risks. "The value of global ecosystem services is estimated at $16-$64 trillion. The loss of biodiversity can have a direct impact upon business operations, where raw materials will not be available in required quality and quantity."[18]

Thus, when a firm undertakes a CSR project focused on biodiversity, it not only fulfills its responsibility but also contributes towards the ecosystem that is essential for its survival. By fostering biodiversity, corporates showcase the movement from the era of businesses being profit machines to the era of corporates being responsible citizens.

---

17 Rusen Kumar, "*Dependence of Business on Biodiversity*", INDIACSR, https://indiacsr.in/dependence-of-business-on-biodiversity/, (visited on November 23, 2021).

18 *Ibid.*

It also sets goodwill of the company. The world is turning green! Most clientele of corporates expect companies to undertake sustainable policies and incorporate green alternatives. Thus, biodiversity CSR projects help the overall image of the company. "It sets the scene for the company to deal with biodiversity strategically, across its whole operation, by integrating biodiversity issues into existing environmental management or sustainability strategies."[19]

India houses a major portion of the genetic resources in the world, most of which are not available in other parts of the world. Being such a major stakeholder, it becomes pertinent that India becomes more involved in the process of fostering ABS projects.

Large scale ABS centered projects could help in deepening the knowledge among general masses and other corporate houses. It can also help in fostering ABS on an international level. By engaging in these projects, the corporates not only fulfill their CSR obligations, they also get to reap the benefit of genetic resources and highlight their goodwill in the domestic market.

Another major concern with ecological or biodiversity focused CSR projects is the phenomenon of green-washing. Termed by New York environmentalist Jay Westervelt in 1986, green-washing is a form of a deception to sway consumers to believe that the organizational policies of a corporation are ecologically sustainable. Over the last few years, various ecological CSR projects like "Revlon's Breast Cancer Fund" debacle and Asia Pulp and Paper's deforestation scandal[20] have received criticism for the project's green-washing nature. This malicious activity hinders the process of biodiversity preservation and acts as a direct barrier to CSR being an effective solution to the implementation of the 2 international treaties. When devising CSR projects, it has often been observed that environment often comes as an afterthought. Firms try to inculcate environmental preservation through the way of additional activities that do not utilize a lot of funds. It is usually done by planting trees for every purchase or claims of using sustainable ingredients, etc.

Conclusion

The preservation of biodiversity is no longer just an environmental concern. With the accelerating rate at environmental degradation and abuse of genetic resources, the crisis has become a major business concern as well. Corporates, being part of the problem have the ability to be the solution as well. There is no doubt that CSR; especially the CSR mechanism in India has been significant in the preservation and promotion of biodiversity.

---

19 "*How Does Business Impact on Biodiversity?*", THE BUSINESS AND BIODIVERSITY RESOURCE CENTRE http://www.businessandbiodiversity.org/impact.html, (visited on November 23, 2021).

20 William S. Laufer, "*Social Accountability and Corporate Greenwashing*", JOURNAL OF BUSINESS ETHICS, Vol. 43, 2003, pp. 253-254.

By making CSR a mandatory responsibility, the Government of India has taken the first step in setting up modern model legislation for various countries to be inspired. While the nature of the legislation is one of a kind, there are various modifications required for it to be more in sync with the dynamic nature of the 21st century corporate world. *First*, imposing a mandated amount for CSR expenditure is not sufficient. The rules have to be more stringent, if CSR is to be considered as a mechanism to effectively implement the objectives of the CBD and the Protocol 2010. The mere suggestion of the thematic areas takes away the focus of biodiversity from CSR projects. While each thematic area is important in its own regard, the fragmented distribution of funds leads to the fragmented development of ABS.

Further, it is often argued that "2% mandate" often leads to companies doing the bare minimum to evade compliance hassles. The 2% should not be the bar that is set for all the corporates. Conglomerate giants like the Adani Group or Reliance are at the top spectrum in India. It becomes their responsibility to engage in projects that protects their biodiversity in which their companies have thrived in. Legislators need to formulate incentives for corporates to go above and beyond the mandatory 2%. This would not only help formulate more ABS projects, but also accelerate economic development.

Presently, there is little awareness surrounding green-washing despite having it faced on a mammoth scale. As a result of the low awareness, there is no penal implication for the companies engaging in the same. Thus, there is no deterrence for the corporates to not contribute to rising levels of green-washing. The CSR Rules should be amended in such a manner that would allow for stringent penal implications for any companies engaged in green-washing tactics.

Further, the biodiversity CSR projects that are undertaken need regular and strict compliance checks. Most projects that are undertaken are long term projects that are not subjected to regular compliance checks. This often leads to companies taking shortcuts and can result in the true objective of the treaties not being realized. Thus, regular compliance checks are essential in order to foster effective ABS-CSR projects.

An important measure is the introduction of an expert committee to look into fostering ABS projects and the need to preserve biodiversity. It is also important to take a microscopic look at the nexus of CSR with the same. The committee's opinions would be paramount in the formulation of the new policy. Through the publications of the expert committee, the government can ensure the proper dissemination of information for the general public. The Expert Committee should also be tasked to educate the corporates about ABS. It becomes important that the composition of the committee has an adequate representation of all the relevant stakeholders in the industry. Only having industrialists or environmentalists would not serve the true purpose of the committee. There needs to be a fair representation of all the stakeholders that are affected by this predicament so that everyone's interests are adequately represented.

Further, it is also important to consider the international standards of fostering ABS projects. The treaties are just the tip of the iceberg. India has multitude of opportunities which can be explored. The Indian CSR policies have always been ahead of its time. Now the time has come for the domestic laws to be at par with the international standards in order to be at the forefront of fostering ABS through CSR in sync with the CBD and the Protocol 2010.

***

A STUDY ON CORPORATE SOCIAL RESPONSIBILITY IN INDIA *VIS-À-VIS* ACCESS AND BENEFIT-SHARING

Ankit Srivastava[♣] *and Ashutosh Rajput*[♠]

Abstract

India has witnessed the concrete growth of CSR as a concept and as a social obligation. The notion of companies has been changed from profit-making to trust building. Access and Benefit-sharing (ABS) ensures sharing the benefits of genetic resources, which can be monetary (making commercial products) or non-monetary (development of research and skills). India has focused on both its commercial purpose and non-commercial purpose. There are several challenges that are being faced due to the practice of ABS. A constructive approach for biodiversity management by providers and users can counter the obstacles. The successful implementation of ABS depends on a vivid understanding of the CSR process. While the companies that have not shown much prudence in showcasing CSR must acknowledge the fact that it has to pay back to the society, the same society from which sources have been utilised.

Keywords: Access and Benefit-sharing, Biological Diversity, Companies, Corporate Social Responsibility, Stakeholder.

Introduction

After companies have received great acclaim for Corporate Social Responsibility (CSR), companies around the world have prudently aided the development of their respective societies for the legitimate purpose of mankind. While it is still a novel concept to most of the developing countries[1], India, having been called the developing country, witnessed the concrete growth of CSR as a concept and later as a socio-legal obligation. Historically, CSR was based on a philanthropic-based model approach, nonetheless, after liberalization in the 1990s, this approach has been shifted to financial stakeholders.[2] Therefore, at present, the company is deemed to be responsible towards all its stakeholders. The notion of companies has been changed from profit-making to trust building. Thus, there is now a strong balance between eliminating the social backwardness of society and making a profit. More so, because the companies have acknowledged that merely

♣ Assistant Professor of Law at Dharmashastra National Law University, Jabalpur, e-mail: ankitsrivastava824@gmail.com .

♠ Student, Hidayatullah National Law University, Raipur, e-mail: ashutosh.192010@hnlu.ac.in .

1 Vardhini Rakagopal et al. "*Stakeholder Salience and CSR in Indian Context*", DECISION, Vol. 43 No. 4, 2016.

2 Nobuyuki Tokoro, "*Stakeholders and Corporate Social Responsibility (CSR): A New Perspective on the Structure of Relationships*", ASIAN BUSINESS AND MANAGEMENT, Vol. 6, 2007, pp. 143-162.

profit making would lead a company nowhere in comparison to when it makes a profit in addition to causing upgradation of social and environmental causes. The obligation of providing fund for social cause was strengthened by the insertion of Section 135 in the Companies Act 2013 where it mandates having a prudent CSR contribution as an obligation. There is still a void on the part of several companies for not adhering to this legislative mandate wherein, the CSR disclosure and its transparency continued to be contested for several years. Moreover, only a limited sum from the CSR fund, amounting to 2-3%, goes for biodiversity management.[3]

This paper aims at evaluating Corporate Social Responsibility and its impact on Access and Benefit-sharing. It argues for increasing the contribution to the existing CSR mandate so that monetary consideration can be utilised by the concerned biodiversity authority. It also evaluates the ABS in terms of its enacting legislation and its implementing authorities. The researcher has also shown how India has progressed immensely in implementing ABS. The paper also frames certain issues which are still present in ABS management and suggestions for resolving such issues are also highlighted.

Corporate Social Responsibility: From Concept to a Social Obligation

CSR which is often described as the corporate "triple bottom line- profit, people, and the planet"[4] grew as a concept, post the hue and cry of liberalisation, privatisation, globalisation reforms.[5] Initially, from 1930, the ethical model was prevalent wherein the company can voluntarily contribute to public welfare. With its dawn in the 1950s, the statistic model prevailed wherein the corporate responsibility was ascertained on a case-to-case basis with a view of state ownership. By 1970s, the liberal model restricted social responsibility to private individuals (shareholders) only. In 1990, under the aegis of R. Edward Freeman, the stakeholder model grew its prominence.

CSR amalgamates social and environmental aspects of a profit-making organisation for ushering its operational activities. In simple parlance, it is a comprehensive set of policies that a company undertakes for ensuring beneficial results of past, present as well as future actions. The responsibility comes from the strong assumption that a company must have utilised some resources from its external environment and limited the consumption of such resources for the general masses, Therefore, for them, it becomes imperative to give back and serve the society- the byproduct of resources that have been utilized. While Greenfield

3 "*Public Finance Mainstay for India's Biodiversity Conservation – But More Innovation and Private Sector Involvement Needed*", THE BIODIVERSITY FINANCE INITIATIVE, UNDP, February 11, 2019, https://www.biofin.org/news-and-media/public-finance-mainstay-indias-biodiversity-conservation-more-innovation-and-private, (visited on November 26, 2021).

4 Paulina Ksiezak and Barbara Fischbach, "*Triple Bottom Line: The Pillars of CSR*", JOURNAL OF CORPORATE RESPONSIBILITY AND LEADERSHIP, Vol. 4 No. 3, 2017, pp. 96-110.

5 Sanjeev Verma and Rohit Chauhan, "*Role of Corporate Social Responsibility in Developing Economies*", INTERNATIONAL MARKETING CONFERENCE ON MARKETING AND SOCIETY, 2007, pp. 139-146.

argues that since the corporation is a legal person and being in that position it belongs to the society, ergo, it has obligations towards the society, and ultimately towards the people at large.[6] Having said that, the term CSR is being interchangeably used in relation to other terms such as philanthropy, business ethics, and so forth.[7] While *prima facie*, this provision seems to confer responsibilities on a company towards shareholders, a succinct reading of the same provides for the stakeholder's interest as well. This argument is strengthened by the fact that the proviso of Section 135 emancipates a company to give preference to its stakeholders as *Provided that the company shall give preference to the local area and areas around it where it operates, for spending the amount earmarked for Corporate Social Responsibility activities.* Thus, the stakeholder is a subjective term and each company has identified their respective stakeholders upon whom they have an obligation.

CSR as a social obligation grew from the issuance of Corporate Social Responsibility Voluntary Guidelines 2009 by the Ministry of Corporate Affairs.[8] After, successive efforts, it was explicitly recognised in the Companies Act 2013 which broadly enshrines the CSR under Section 135[9] wherein any company having a net worth of rupees five hundred crores or more, or turnover of rupees one thousand crores or more or a net profit of rupees five crores or more during the immediately preceding financial year is required to constitute a Corporate Social Responsibility Committee of the Board.[10] Such a committee shall be responsible for monitoring the CSR[11], recommending the amount of expenditure to be incurred for CSR[12] and formulating CSR policy of a company.[13] For that, a company is obliged to spend at least two percent of their average net profit incurred during the three immediately preceding financial years.[14] Nonetheless, the amount i.e., 2% of the average profit of three preceding years is disputed, for which, it has been argued that the amount is not sufficient to gain society's trust thus critics have termed it as *in India no force on earth can stop an idea whose time had long passed, instead of an idea whose time has come!*[15] The spending remains under the

6 Kent Greenfield, "*If Corporation Are People, They Should Act Like It*", THE ATLANTIC, December 27, 2021, https://www.theatlantic.com/politics/archive/2015/02/if-corporations-are-people-they-should-act-like-it/385034/, (visited on November 26, 2021).

7 Seema G. Sharma, "*Corporate Social Responsibility in India: An Overview*", pp. 1-20, https://scholar.smu.edu/cgi/viewcontent.cgi?article=1317&context=til, (visited on November 26, 2021).

8 Parvat R. Patel, "*Corporate Social Responsibility in India- A Path to Achieve Sustainable Development Goal*", INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS, Vol. 8, No. 12, 2019, pp. 559-568.

9 Section 135 of Companies Act 2013.

10 *Ibid*, Section 135(1).

11 *Id.*, Section 135(3)(c).

12 *Id.*, Section 135(3)(b).

13 *Id.*, Section 135(3)(a).

14 *Id.*, Section 135(5).

15 Arun Maira, "*India's 2% CSR Law- The First Country to Go Backwards*", ECONOMIC AND POLITICAL WEEKLY, Vol. 48 No. 38, 2013, pp. 23-25.

scrutiny of various regulators, especially after the circular issued by the Securities and Exchange Board of India (SEBI) 2012[16], that requires the inclusion of Business Responsibility Reports (BRR) as a part of annual reports for the top 100 listed entities, which in turn requires the disclosure of amount spent by the listed entities.[17] In one of the circulars of SEBI dated December 26, 2019[18], the inclusion of BRR has been extended to top 1,000 listed companies. Schedule VII of the Companies (Amendment) Act 2019 enlists Corporate Social Responsibility activities proposed by the government, which includes a contribution to several recognised funds, eradication of several social stigmas, promotion of gender equality, protection of the environment, among others. Since its inception, India has seen a significant increase in CSR spending- there was an increase of 47% in 2018 compared to 2014-15.[19]

Access and Benefit-sharing from the Lens of Stakeholders and Biodiversity Board

The Access and Benefit-sharing[20] has been applied in India through the Biological Diversity Act 2002 (the Act 2002). The Act 2002 provides for the establishment of National Biodiversity Authority (NBA), State Biodiversity Boards (SBBs), and local Biodiversity Management Committees (BMCs). For the conservation of genetic resources and fair benefit-sharing, the NBA serves as a regulatory, facilitative, and advisory body. The SBBs advise state governments on biodiversity conservation and sustainable use, and are required to deal with issues and applications related to traditional knowledge and Indian access to biological resources SBBs are in turn required to deal with access to biological resources made by Indians. The BMCs, on the other hand, implement biodiversity conservation at the grass-root level. At the grass root level such as municipalities and panchayats, the BMCs implement biodiversity conservation.

While NBA deals with the matters relating to requests for access to biological resources and associated knowledge by entities or non-Indian individuals for research purposes. NBA also handles applications from anyone requesting approval

16 Circular no. CIR/CFD/DIL/8/2012, SECURITIES AND EXCHANGE BOARD OF INDIA, August 13, 2012, https://www.sebi.gov.in/sebi_data/attachdocs/1344915990072.pdf, (visited on November 30, 2021).

17 Shiv Nath Sinha, "*Corporate Social Responsibility in India- A Case of Government Overregulation?*", ECONOMIC AND POLITICAL WEEKLY, Vol. 56 No. 26-27, 2021, pp. 77-83.

18 "*SEBI (Listing Obligations and Disclosure Requirements) (Fifth Amendment) Regulations 2019*", SECURITIES AND EXCHANGE BOARD OF INDIA, December 26, 2019, https://www.sebi.gov.in/legal/regulations/dec-2019/securities-and-exchange-board-of-india-listing-obligations-and-disclosure-requirements-fifth-amendment-regulations-2019_45511.html, (visited on November 27, 2021).

19 Dezan Shira and Associates, "*Corporate Social Responsibility in India*", INDIA BRIEFING, December 26, 2021, https://www.india-briefing.com/news/corporate-social-responsibility-india-5511.html/, (visited on November 30, 2021).

20 Myrna E. Watanabe, "*The Nagoya Protocol on Access and Benefit-sharing: International Treaty Poses Challenges for Biological Collections*", BIO SCIENCE, Vol. 65 No. 6, 2015, pp. 543-550.

before filing an Intellectual Property Rights based on research or information on biological resources collected in India. Further, it handles applications for the transfer of recognised biological resources to a third party. NBA grants approvals pursuant to mutually agreed terms and limitations on access to biological resources, as outlined in the ABS Agreement, in order to ensure a more equal distribution of benefits.

Corporate Social Responsibility and Stakeholders' Interest: Plugging Financial and Non-financial Performance

Irrespective of its growth, many companies at present, especially small and medium-sized companies' does not show their inclination towards CSR.[21] It is high time now that companies start recognising the importance of CSR as a tool for influencing their performance. Undeniably, CSR is ultimately responsible for influencing the financial performance (FP) and non-financial performance (NFP) of a corporation.[22] As Lee argues, the performance of a company gets shunned when it loses its support from stakeholders.[23] The statement very well gets exemplified through Ford's conceptual shift to CSR. While Ford was making profit, it slashed the price of Model T vehicles for the obvious reason, it focused on making money rather than serving society's purpose. After a while, when William Clay Ford Jr, Henry Ford's great-grandson, made a shift from the profit motive and gave importance to its stakeholders by contending, *We want to find ingenious new ways to delight consumers, provide superior returns to shareholders and make the world a better place for us all*[24], it received exceptional support from various stakeholders, and also showcased an increment in shareholder base. In the same way, an increase in the contribution towards ABS will strengthen the companies' relations with its stakeholders and would make it easy for the parties indulging in ABS, to engage without any repercussions and promote the objective of protecting environment.

Therefore, unequivocally, CSR has a huge impact on a company's performance, especially on its financial performance (measures objective nature of a company) and on non-financial performance (measures subjective nature of a company). A favourable CSR will have a positive impact on such performance.[25] In another

---

21 Sushil Dixit, "*Barriers to Corporate Social Responsibility: An Indian SME Perspective*", LBSIM WORKING PAPER SERIES, August, 2020, https://www.lbsim.ac.in/Uploads/image/741imguf_12.pdf, (visited on November 28, 2021).

22 Supriti Mishra and Damodar Suar, "*Does Corporate Social Responsibility Influence Firm Performance of Indian Companies?*", JOURNAL OF BUSINESS ETHICS, Vol. 95, 2010, pp. 571-601.

23 Min-Dong Paul Lee, "*A Review of the Theories of Corporate Social Responsibility: Its Evolutionary Path and the Road Ahead*", INTERNATIONAL JOURNAL OF MANAGEMENT REVIEWS, 2008.

24 *Ibid.*

25 *Supra* n. 23, It also argues that FP and NFP will be positively affected by a favourable CSR towards suppliers who are one of the major stakeholders; *See* also John C. Anderson and Alan W. Frankle, "*Voluntary Social Reporting: An Iso-Beta Portfolio Analysis*", AMERICAN ACCOUNTING ASSOCIATION, Vol. 55 No. 3, p. 469.

research, it was found out that for generating positive impact in the minds of investors, CSR initiative is the *sine qua non*.[26]

Interface Between Access and Benefit-sharing and Corporate Social Responsibility

ABS as a concept conceptualises the mode of accessing genetic resources and sharing the resultant benefits arising from their use between users and providers. It has also been defined as *the sharing of benefits arising from the utilization of genetic resources in a fair and equitable way*.[27] ABS ensures sharing the benefits of genetic resources which can be monetary (making commercial products) or non-monetary (development of research and skills). India being a signatory of the Convention on Biological Diversity (CBD) in 1994, is aimed at conserving biodiversity and ensuring its *"fair and equitable sharing"*[28]. Moreover, India being a developing country, proper implementation of ABS could substantially denude the prevailing poverty and could focus more on sustainable development. For that matter, the International Cooperative Biodiversity Groups (IGBG) Bioprospecting Programme in Panama can be looked at as an example. The benefits arising out of using Panama's genetic resources has aided in Panama's development including *building scientific infrastructure, creating research programs, training scientists, and developing drug-discovery programs for diseases*[29].

ABS is premised on prior informed consent (PIC) upon which the permission is given by the competent authority for using the genetic resources. An agreement to that effect namely, mutually agreed terms (MAT) is thereby established between the provider and the user. The preceding statement is given effect through the principles shunned in Article 15 of the Convention on Biological Diversity, 1992 (CBD). Further, these principles are shunned within the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (the Protocol 2010). The international ABS goals are set forth with the amalgamation of CBD and the Protocol 2010 along with parties' decisions thereof.

Among other things, in the process of ABS, providers of genetic resources, users of genetic resources, national focal points and competent national authorities are involved.[30] For commercial purposes, genetic resources help a company in developing special enzymes, enhanced genes among others to enhance and improvise crops. For non-commercial purposes, it helps the company in obtaining

26 Sweta Verma, "*Why Indian Companies Indulge in CSR?*", JOURNAL OF MANAGEMENT AND PUBLIC POLICY, Vol. 2 No. 2, 2011, pp. 52-69.

27 The Nagoya Protocol 2010.

28 Aathira Perinchery, "*Bioresource Access and Benefit-sharing: How Far Have We Come in India?*", MONGABAY, April 9, 2020, https://india.mongabay.com/2020/04/india-bioresource-access-and-benefit-sharing-how-far-have-we-come/, (visited on December 28, 2021).

29 "*Introduction to Access and Benefit-sharing*", CBD INTERNATIONAL, https://www.cbd.int/abs/infokit/all-files-en.pdf, (visited on November 30, 2021).

30 *Ibid*.

research skills and increases knowledge base as done in various academic and research institutions.

While the successful implementation of ABS depends on the vivid understanding of the process, it also depends on policies adopted in a country, legislation prevailing in a country, regional strategies, etc. Therefore, its implementation is not uniform at the national level and varies with respect to the prevailing circumstances.[31] Research by Nomani suggests that India has focused on both its commercial purpose and non-commercial purpose.[32] There are several challenges that are being faced due to the practice of ABS. Time and again, large-scale experiments are done for successfully advancing results, nevertheless, the contemporary practice does not seem to usher the viabilities associated with the inputs. As illustrated, a French pharmaceutical and dermo cosmetics group, Pierre Fabre ultimately, after conducting extensive plant extract screening, disbanded its team as not a single molecule entered clinical development.[33] A constructive approach for biodiversity management by providers and users can counter the underlying obstacles and sustainably result in a win-win situation.[34] There arises no doubt that by furthering the ABS in India, stakeholders' interests would get served more succinctly. Both commercial and non-commercial aspects of ABS ultimately help a company in garnering stakeholders' interest towards the companies' activities and providing benefit to the society as a whole.

Biodiversity Management and Access and Benefit-sharing in India

India has progressed tremendously in the area of ABS. One of such progressiveness can be ascertained from the Red Sanders Case of the year 2015. It laid a pathway for the National Biodiversity Authority, State Boards and local communities to utilize the Access and Benefit-sharing of the biological resources. In the Red Sanders Case, a global e-auction was placed by the state of Andhra Pradesh wherein the sale of high economic value Red Sanders was conducted through bidding before accessing the biological resources. The bidder whose bid got successful has to transfer 95% of the total benefits to the Biodiversity Management Committee at the local level and 5% to the State Biodiversity Board or the National Biodiversity Board. This resulted in providing benefits to the people of all walks of life including indigenous people, tribal people, and forest-dwellers. This bidding process as a whole changed the stance of the company's utilisation of genetic resources.

PepsiCo, a multinational company has successfully implemented the ABS by signing access benefit-sharing agreement. Pursuant to the sharing agreement, PepsiCo India Holdings Private Ltd. has intended to export the seaweed for Rs. 37

---

31 *Id.*

32 M.Z.M. Nomani, "*The Access and Benefit-sharing Regime: An Environmental Justice Perspective*", ENVIRONMENTAL POLICY AND LAW, Vol. 49 No. 4-5, 2019, pp. 259-263.

33 Frank Michiels et al. "*Facing the Harsh Reality of Access and Benefit-sharing (ABS) Legislation: An Industry Perspective*", MDPI SUSTAINABILITY, Vol. 24 No. 1, 2021, https://doi.org/10.3390/su14010277, (visited on November 28, 2021).

34 *Ibid.*

lakhs in 2007.[35] It has exported a huge quantity of seaweeds across borders with an approximation of 2000 metric tons. In another successful case namely, the Bio India Biological-Neem case the National Biodiversity Authority (NBA) has garnered USD 924 from the former for exporting two thousand kilograms of neem to Japan. As a remarkable step, the NBA transferred the royalty amount to the local biodiversity board for creating awareness among masses for conserving biodiversity.[36]

Furthermore, with an annual royalty of 5%, Novozymes Biologicals Inc. of USA has had signed an agreement with the NBA. The agreement stipulated giving the authority to Novozymes Biologicals Inc. for the commercial utilization of Bacillus and Pseudomonas from Kerala's forest division.[37] These bacteria ultimately aided in the promotion of crop production of tomato, lettuce, rice, etc. Moreover, there have been several instances where the Biodiversity Board has explicitly mandated to periodically notice if private companies are accessing and exploiting the biodiversity resources of the state without paying any royalty.[38]

Conclusion

ABS desires a strong tracing mechanism at three levels, the Center, the State and at the local level. The BMCs must reach out to the indigenous communities and educate them about the importance of the ABS. Unless the indigenous network has faith and trust in the authorities the hassles relating ABS cannot be resolved, therefore common visits by way of officers, organising village degree gatherings will help the government connect with the indigenous network.

The Act 2002 is well summed up in relation to the realities prevailing in the society at present. Nevertheless, several issues arise in its implementation. The major issue is related to the implementation of ABS as has been noted above which mainly focused on the monetary aspect of the ABS. Prime contention for covering this issue is by making a mandate on the percentage of CSR contribution by the companies because at present it has been noticed that a meager amount from the total CSR expenditure is being utilised towards ABS. While the companies who have not shown much prudence in showcasing CSR must acknowledge the fact that it has to pay back to the society, the same society from which sources have been utilized. To give effect to the companies for obliging the CSR mandate specifically for uplifting biodiversity, a specific mandate of substantial percentage must be made in the companies' charter.

A better implementation of ABS would allow a company to get an edge over its competitors with respect to the stakeholders. By that, it would not only be making a

35 "*Biodiversity and Access and Benefit-sharing in India*", NLS ABS, https://nlsabs.com/?page_id=219, (visited on December 29, 2021).

36 *Ibid.*

37 "*Bengaluru, Handbook on Biodiversity Laws, Access and Benefit-sharing*", CENTRE FOR ENVIRONMENTAL LAW, EDUCATION, RESEARCH AND ADVOCACY, NATIONAL LAW SCHOOL OF INDIA, https://nlspub.ac.in/wp-content/uploads/2019/05/Handbook-on-Biodiversity-law-Access-and-Benifit-Sharing.pdf, (visited on December 30, 2021).

38 *Ibid.*

substantial profit, but will also be promoting the development for the good cause. Regarding monetary compensation as well, there have been arguments from the critic's side, which have argued that the ultimate object of benefit-sharing must be development and not just monetary compensation. To counter the said contention, it is argued by the researcher that monetary compensation is important for promoting the existing framework of maintenance. This allows both the biodiversity authorities and other stakeholders to work for a better cause of development.

***

ACCESS TO BIOLOGICAL RESOURCES AND BENEFIT-SHARING IN INDIA: AN ANALYSIS

Manoj Kumar Sharma[♣]

Abstract

Biological diversity is significant for survival of several living organisms. Various forms of plants and biological materials are being used in industry leading to overexploitation of such resources. Earth has, therefore, witnessed marked decline in biodiversity, raising concerns across the globe. Conservation of biodiversity requires that the indigenous tribes and local communities are associated and incentivised for the same. Since the enactment of the Biodiversity Act 2002, India has come a long way in implementing the mandate of CBD and in devising its own ABS mechanism based on Fair and Equitable Benefit-sharing Principle. However, there are various challenges in the implementation of the CBD and ABS mechanism. In this background, the first two sections of the paper attempt to analyse the evolution of the concept of ABS and the objectives and obligations under the Nagoya Protocol (the Protocol 2010). The third section deals with the analysis of Indian legal framework for Conservation of Biodiversity and for ensuring ABS on Fair and Equitable Benefit-sharing Principle. Fourth section analyses various challenges in the implementation of the ABS mechanism in India and the last section puts forth some suggestions for better achievement of the aims of CBD.

Keywords: Access and Benefit-sharing, Biodiversity, Convention on Biological Diversity, Nagoya Protocol.

Introduction

Biological diversity[1], in literal sense, refers to diversity in varied kinds of genes and species and it includes within its fold infinite variety of life forms; variety of species in flora and fauna; variety of ecosystem; variations of genes in individual species, etc. Survival of living organisms including human beings on Earth is affected by and is dependent upon biological diversity. Biological diversity, however, is impacted by various anthropogenic activities which have direct and indirect impact on it. Due to anthropogenic reasons, World has witnessed huge biodiversity loss since the onset of industrial revolution. Global Living Planet Report 2020 has, using data from monitored population (20811

♣ Associate Professor of Law, Maharashtra National Law University, Nagpur, e-mail: manojsharma@nlunagpur.ac.in .

1 Section 2(b) of the Biological Diversity Act 2002 states that: *biological diversity means the variability among living organisms from all sources and the ecological complexes of which they are part and includes diversity within species or between species and of ecosystems*.

population of 4392 species), identified that there is 68% fall in population of birds, mammals, fish, reptiles and amphibians during 1970-2016.[2]

Keeping in view the importance of biodiversity, various international efforts for preservation and protection of biodiversity were initiated particularly after Stockholm Declaration 1972 *viz*., Convention regarding Protection of World Culture and Natural Heritage 1972; Convention on International Trade in Endangered Species (CITES) 1973; The Berne Convention on Conservation of European Wild Life and their Natural Habitats 1979 etc.[3] However, these efforts were not sufficient and therefore, on June 5, 1992 more than 150 countries signed Earth Summit in, Rio De Janeiro, under the title Convention on Biological Diversity (CBD). CBD was developed for providing international biodiversity protection and regulatory regime. CBD entered into force on December 29, 1992. It provided a holistic approach to conserve biodiversity while focusing on sustainable development and it called for sustainable use of natural resources and equitable sharing of benefits arising from the use of genetic resources[4] CBD paved the way for further international developments for achievement of the objects of CBD and accordingly, the Protocol 2010 was enacted to deal with one of the objectives of CBD i.e. fair and equitable sharing of the benefits arising from the utilization of genetic resources. In pursuance of the CBD, India enacted Biological Diversity Act 2002 (the Act 2002). Further, in order to implement the mandate of the Protocol 2010, the government of India has promulgated ABS Regulations i.e. "Guidelines on Access to Biological Resources and Associated Knowledge and Benefit-sharing Regulations, 2014".

In this backdrop, this paper attempts to analyse the responsibilities of Indian nation regarding Access and Benefit-sharing under the Protocol 2010 and further to analyse the legislation and rules enacted to implement the objectives of CBD and the Protocol 2010.

Evolution of the Concept of Access and Benefit-sharing

Access to biological resources[5] was, historically, free and open and there was hardly any mechanism in place to regulate access and exchange of biological resources across borders. Since time immemorial, plant genetic resources for food,

2 R.E.A. Almond et. al. (eds.), "*Living Planet Report 2020 – Bending the Curve of Biodiversity Loss*", WWF, 2020.

3 This apart various other instruments dealing with varied aspects of biodiversity were enacted at the international level *viz.*, International Convention for the Regulation of Whaling 1946; International Convention for the Protection of Birds 1950; International Plant Protection Convention 1951; Agreed Measures for Conservation of Antarctic Fauna and Flora 1964; The Convention on Wetlands 1971; The World Heritage Convention 1972; Convention on International Trade in Endangered Species of Wild Fauna and Flora 1973; Bonn Convention on Migratory Species 1979.

4 Preamble of the Convention on Biological Diversity 1992.

5 Section 2(c) of the Biological Diversity Act 2002 states that: *biological resources means 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*.

agricultural and medicinal purposes have been accessed openly without consent and without sharing of benefits with the local or indigenous communities. The need for recognition of rights of farmers and local communities was recognised and an International Convention for the Protection of New Varieties of Plants was adopted in 1961. The Convention provided for protection of plant varieties for encouraging development of new varieties benefitting the society. International Union for Protection of New Varieties of Plants (UPOV) was accordingly established. Revision of the Convention in 1978 mandated the requirement for prior authorisation of the breeder for commercial production, marketing and sale of protected plant varieties.[6]

In 1983, Commission on Genetic Resources for Food and Agriculture was established by Food and Agricultural Organisation and Voluntary International Undertaking on Plant Genetic Resources was adopted which called for free and open access to plant germplasm so that genetic resources can be maintained as heritage of mankind and also for food security. However, UPOV members disagreed on open and free access to plant genetic resources and accordingly the Voluntary International Undertaking of 1983 was amended in 1988 to include an explanation that open access shall not mean free of cost. Hence. the concept of Access and Benefit-sharing gained ground.

It must be noted that CBD was negotiated at a time when TRIPS was being negotiated wherein patent protection for biotechnological inventions was emphasized by developed nations. Further emphasis on protection of new plant varieties by developed nations created a sense of injustice and fear among developing and least developed nations that their efforts to conserve Traditional Knowledge (TK) and biodiversity would suffer and they would not get any benefits. ABS, therefore, evolved as a political agenda leading to recognition of sovereign rights on genetic resources and the requirement of ABS on Mutually Agreed Terms (MAT).[7] Accordingly, TRIPS allowed State parties to exclude from patentability plants, animals and biological processes for production of plants and animals.[8] CBD, thus, recognized sovereign rights of States over genetic resources which are found within territorial jurisdictions of States and authorised States to determine rules for access to such genetic resources subject to principles of Prior Informed Consent (PIC) and MAT. The concept of fair and equitable benefit-sharing emerged in the early 90s as a corollary to the principle of national sovereignty over natural and genetic resources.[9]

---

6 Article 5 of the International Convention for the Protection of New Varieties of Plants 1961.

7 "*Strengthening Human Resources, Legal Frameworks, and Institutional Capacities to Implement the Nagoya Protocol (Global ABS Project)*", ACCESS AND BENEFIT SHARING IN INDIA - A HANDBOOK FOR RESEARCHERS, 2021, p. 7, http://nbaindia.org/uploaded/pdf/IDB_ABS.pdf, (visited on November 20, 2021).

8 Article 27(3)(b) of the Agreement on Trade Related Aspects of Intellectual Property Rights 1995.

9 Elsa Tsioumani, "*Lessons from the Law and Governance of Agricultural Biodiversity*", EDINBURGH SCHOOL OF LAW RESEARCH PAPER SERIES, No. 18, 2016, pp. 1-35.

CBD, therefore, ended the age-old concept of free and open access to genetic resources and contemplated the notion of regulating Access and Benefit-sharing. It is noteworthy that there was an open access to plant and genetic resources for food and agriculture and therefore, there was need to reconcile the same with CBD objectives. Accordingly, International Treaty for Plant Genetic Resources for Food and Agriculture 2001 (ITPGRFA) provided for multilateral Access and Benefit-sharing (ABS) system through Standard Material Transfer Agreement. Enactment of CBD led to framing of voluntary guidelines i.e. Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits arising out of their Utilization 2002. These guidelines were meant to assist the States in framing Fair and Equitable Benefit-sharing (FEBS) strategies. Bonn Guidelines identified various steps in FEBS and the roles of various stakeholders in ensuring FEBS on MAT. Finally, the Protocol 2010 to CBD was adopted to provide access and Fair and Equitable Benefit-sharing.

The Nagoya Protocol on Access and Benefit-sharing

Convention on Biological Diversity (CBD) was enacted *inter alia* for Conservation of biodiversity; Sustainable use of biodiversity and; Fair and equitable sharing of benefits arising from the utilization of genetic resources. The Protocol 2010 to CBD has been put in place to achieve the third objective of the Convention i.e. fair and equitable sharing of the benefits arising from the utilisation of genetic resources. The Protocol 2010 is the result of six years of negotiations and it was adopted on October 29, 2010 in Nagoya, Japan at the tenth meeting of the Conference of Parties.[10] The Protocol 2010 emphasises the role of Access and Benefit-sharing (ABS) in conservation of Biodiversity.[11]

Objectives of the Nagoya Protocol

The Protocol 2010 was entered into force on October 12, 2014[12]. The Protocol 2010 deals with genetic resources, traditional knowledge associated with genetic resources, access to genetic resources and benefit-sharing arising from the utilisation of genetic resources.[13] The objectives of the Protocol 2010 are to:

- ensure Fair and Equitable Sharing of Benefits (FEBS) arising from the utilisation of Genetic resources[14];
- promote technology transfer and cooperation for ensuring conservation of biodiversity and sustainable use of biodiversity; and
- ensure fair and equitable access to traditional knowledge associated with genetic resources.[15]

10 Protocol recognizes Rights over Genetic Resources; Rights over Traditional Knowledge; Right to Self-governance of indigenous and local communities and; Right to benefit from third parties who utilize traditional knowledge and genetic resources.

11 Preamble of the Nagoya Protocol 2010.

12 The Protocol 2010 has been ratified by 133 countries as of January 2022.

13 Article 3 of the Nagoya Protocol 2010.

14 *Ibid*, Article 2(c) states that: *utilization of genetic resources means conducting research and development on genetic and biological composition of genetic resources including through the application of biotechnology*.

15 *Id.*, Article 1.

The Protocol 2010 does not affect the rights and liabilities of parties under other international instruments/agreements unless they pose serious threat to biodiversity. The Protocol 2010 also recognizes the rights of the parties to negotiate and enter into other international agreements including specialized benefit-sharing agreements subject however, to the condition that they shall not be inconsistent with the Protocol 2010. The Protocol 2010 emphasizes mutual supportiveness of international instruments. Thus, where a specialized benefit-sharing instrument is entered into and which is not inconsistent with the Protocol 2010, the Protocol 2010 does not apply to parties of such specialized agreement on the topics covered by such specialized agreement.[16] For example, to deal with crop genetic resources, Commission on Genetic Resources for Food and Agriculture of the Food and Agricultural Association came up with Voluntary International Undertaking on Plant Genetic Resources which later culminated into an International Treaty for Plant Genetic Resources for Food and Agriculture 2001 (ITPGRFA) which has been signed by 148 countries.[17] ITPGRFA aims at ensuring food security by sustainable use and exchange of plant genetic resources for food and agriculture providing for fair and equitable sharing of benefits arising out of use of plant genetic resources.[18] ITPGRFA established multi-lateral Access and Benefit-sharing system. The treaty deals with crop/seed based genetic resources providing for sharing of crop based genetic resources through a multi-lateral system ensuring Access and Benefit-sharing. ITPGRFA has facilitated transfer of 5.6 million crop based genetic resources making it the largest pool and exchange mechanism in the world.[19]

Obligations under the Nagoya Protocol

As stated earlier, the Protocol 2010 provides for access to genetic resources and TK and for benefit-sharing arising out of utilization of genetic resources/TK. In this context, various obligations are cast upon the parties to the Protocol 2010. These obligations can be categorised as:

- Access Obligations
- Benefit-sharing Obligations
- Compliance Obligations

16 *Id.*, Article 4.

17 "*International Treaty on Plant Genetic Resources for Food and Agriculture*", FOOD AND AGRICULTURE ORGANISATION OF UNITED NATIONS, https://www.fao.org/plant-treaty/countries/membership/en/?page=1&ipp=20&no_cache, (visited on January 10, 2022).

18 Apart from providing for fair and equitable sharing of benefits arising out of use of plant genetic resources, ITPGRFA recognizes various rights of farmers including protection of Traditional Knowledge (TK) of farmers regarding plant genetic resources and; farmers' right to participate in decision making on issues concerning sustainable use and conservation of plant genetic resources.

19 FOOD AND AGRICULTURE ORGANISATION, https://www.fao.org, (visited on January 10, 2022).

Access Obligations

The Protocol 2010 provides for access to genetic resources and TK associated with genetic resources. The Protocol 2010, as stated earlier, recognizes sovereignty of the States over their natural resources and the right of the states to exploit them. In this context, the Protocol 2010 provides that access to genetic resources shall be subject to PIC of the State of origin of genetic resources. In other words, party desiring to access genetic resources for their utilization need to apply and obtain the permission of the country of origin of genetic resources.[20]

The Protocol 2010 has mandated State parties to undertake various legislative and policy measures including but not limited to the following:

- Promotion and encouragement of conservation of biodiversity and research in biodiversity;
- Providing for fair and non-arbitrary ABS mechanism and ensuring transparency, clarity and legal certainty in the mechanism;
- Providing clear procedures and processes for obtaining information regarding biological resources;
- Delineating process for obtaining Prior Informed Consent and involvement of local and indigenous communities for obtaining access to genetic resources[21] and for use of TK associated with genetic resources;
- Establishing a mechanism for deciding Mutually Agreed Terms (MAT) including Terms for Benefit-sharing; Terms on third party use and; Dispute Settlement etc.;
- Laying down the organisational set up for deciding applications filed for access to genetic or biological resources including grant of licenses in a fair, transparent and time bound manner[22];
- Ensuring easy access to resources for non-commercial research purposes; and
- Establishment of ABS Clearing House.

Benefit-sharing Obligations

The Protocol 2010 has been adopted with an object to ensure fair and equitable benefit-sharing. Benefits may include monetary as well as non-monetary benefits. The Protocol 2010 mandates States to ensure FEBS arising from the use of genetic resources on MAT with local or indigenous communities and to ensure FEBS arising from TK associated with genetic resources upon MAT.[23]

Compliance Obligations

The Protocol 2010 casts various compliance obligations upon States, apart from ensuring Access and FEBS on MAT. Various compliance obligations have been cast on the State Parties including:

20 Article 6 of the Nagoya Protocol 2010.
21 *Ibid.*
22 *Id*., Article 13.
23 Annexure of the Nagoya Protocol 2010.

- Ensuring compliance with the rights of local and indigenous communities and their PIC before accessing genetic resources[24];
- Ensuring monitoring and transparency regarding the utilization of genetic resources including establishment/designation of check points where the information relating to PIC and other information can be collected or received[25];
- Ensuring Compliance with MAT; provision of resolution mechanism for implementation of MAT and for dealing with non-compliance with obligations[26];
- Ensuring implementation of foreign judgements and arbitral awards;
- Dissemination and provision of information to ABS Clearing House;
- Encouraging development of ABS best practices and voluntary codes of conduct[27]; and
- Devise methods and measures for exchange of experiences, education, training etc.[28]

Genetic resources and TK associated with genetic resources are of wide importance in pharmaceutical, agriculture, bio-technology, cosmetic, food, beverages etc. In this context, the Protocol 2010 seeks to ensure that access to genetic resources is with the PIC of the country of origin and the benefits arising out the utilization of genetic resources should be shared with resource provider country in a fair and equitable manner.

The Protocol 2010 has, thus, provided for a detailed and comprehensive mechanism to ensure access to genetic resources and for FEBS on MAT in order to ensure the attainment of the third objective of the CBD. The Protocol 2010 was negotiated between 2004 to 2010 and it took six long years for the Protocol to be finalised. The Protocol 2010 entered into force at a time when India was presiding over the Conference of Parties. The Protocol 2010 assumed importance in view of the increased tapping of genetic resources in biotechnology and also increased demand for natural/green products leading to increased tapping of these resources.

Indian Legal Framework on Access and Benefit-sharing

In India, historically and traditionally, environmental ethos has formed part of way of life and religious sentiments. Conservation of biodiversity also has been an integral part of Indian religious precepts and philosophy and the same was regarded as *Dharma* of all human beings.[29] Indians worshipped various facets of nature *viz.*, Air, Water, Sun, Moon and Earth. Owing to the importance of these five '*tatvas*' for sustenance of life on this planet earth, there was deep reverence shown to these facets of nature. Guru Nanak (Founder of the Sikh Religion, 1469-1539), said

24 Article 15 of the Nagoya Protocol 2010.
25 *Ibid*, Article 17.
26 *Id*., Article 18.
27 *Id*., Article 20.
28 *Id*., Article 21.
29 P.C. Joshi and Amit K. Pant, "*Fighting Forest Fire: An Enviro-Socio-Legal Study in Kumaon Himalaya*", M.D.U. LAW JOURNAL, Vol. 12, No. 1, 2007, pp. 165-179 at p. 165.

"*Pawan Guru, Pani Pita Mata Dhart Mahat, Divis Raat Doi Daia, Khele Sagal Jagat* (Air is like God, Water is father and Earth is the mother. It is through the harmonious interaction of all these three vital ingredients that the whole universe is being sustained").[30] However, massive industrialisation coupled with other reasons has impacted biodiversity in India underscoring the need for protection of biodiversity.

India, with 2.4% area of the world, is a mega diverse country accounting for nearly 7-8% of the recorded species of the world. Out of 34 biodiversity hotspots, India accounts for four of them namely the Western Ghats, the Himalayas, the Nicobar Islands and Indo Burma region. Country has rich flora and fauna; vast document and undocumented traditional knowledge. More than 3900 plant species are used by indigenous and local communities as fibre, food, pesticide, insecticide, gums and fodder, etc. Apart from this, around 9500 plant species have been identified to have medicinal value and used as such.[31]

Constitutional Position

India has adopted multi-tiered federal polity under the Constitution of India wherein powers have been divided between three layers of government i.e. Central Government, State Governments and Local Governments. Article 246 contained in Part XI of the Constitution read with schedule VII delineates the legislative powers of the Union and States. A cursory glance at the constitutional provisions, as originally enacted, shows that there was no express provision in the Constitution of India relating to biodiversity conservation. Developments at the international level coupled with domestic reasons led to constitutional amendments to include preservation and protection of environment in the Constitution of India.[32] Hence, Constitution (Forty-Second Amendment) Act, 1976 was enacted which inserted some provisions pertaining to environment protection *viz*., Article 48A, 51A(g), entries 17A and 17B in Concurrent List. Article 48A contained in Part IV of the Constitution provides, "The State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country." Though Part IV of the Constitution is non-justiciable, yet it is fundamental in the governance of the country. Insertion of express provision in the Constitution of India, coupled with other national and international developments, lead to development of environmental protection law in India. This apart, Part IVA containing Fundamental duties was also inserted in the Constitution of India. Article 51A(g) casts a duty on every citizen of India to "protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures". Though, Constitution of India did not provide express provisions for enforcement of fundamental duties, however judicial decisions[33] laid

30 Jaspal Singh, "*Legislative and Judicial Control of Environmental Pollution in India: An Appraisal*", LAW JOURNAL, GURU NANAK DEV UNIVERSITY, Vol. 17, 2009, p. 37.

31 "*Annual Report of National Biodiversity Authority*", MINISTRY OF ENVIRONMENT FOREST AND CLIMATE CHANGE, GOVERNMENT OF INDIA, 2017-18, p. 11.

32 *Supra* n. 30.

33 *L.K. Koolwal v. State of Rajasthan* AIR 1982 Raj. 2.

down that rights and duties co-exist and there can-not be any right without any duty and there can-not be duty without any right. Hence, the duty of one is the right of another. Entries 17A and 17B in the Concurrent List of the Seventh Schedule deal with the legislative power of the Union and State legislatures regarding Forests and Protection of Wild Animals and birds. This apart, there are provisions in Article 252 and 253 of the Constitution of India. Article 252 enables the Parliament of India to enact laws, when so required by two or more states, on a subject on which Parliament has no power to make laws. Article 253 enables the Parliament to make laws to give effect to international treaties and agreements which include treaties and agreements relating to environment protection. These provisions coupled with judicial decisions declaring right to clean environment as a fundamental right implicit in Article 21 provided the foundation for enactment of laws relating to conservation and protection of biodiversity in general and for Access and FEBS in particular.

Legal Framework on Access and Benefit-sharing in India

In pursuance of international commitments and constitutional obligations, India has enacted *Biological Diversity Act*, 2000 and framed rules thereunder. In consonance with the objectives of CBD, the Act 2002 has been enacted to achieve the following objectives:

- Conservation of Biological Diversity
- Sustainable use of Components of Biological Diversity
- FEBS of the benefits arising out the use of biological resources and TK[34]

In pursuance of the Protocol 2010, India has promulgated "Guidelines on Access to Biological Resources and Associated Knowledge and Benefit-sharing Regulations, 2014" on November 21, 2014 to ensure compliance with the obligations under the Protocol 2010.

Requirement of Prior Approval

Chapter II of the Biological Diversity Act provides for regulation of Access to Biodiversity. Section 3 provides that persons/entities mentioned below are required to obtain prior approval of NBA[35] before obtaining any biological resource in India or associated TK for research or for commercial utilisation[36] or for bio-survey and bio-utilization[37]:

34 Preamble of the Biological Diversity Act 2002.

35 *Ibid*, Section 3(1).

36 *Id*., Section 2(f) states that: *commercial utilization means end uses of biological resources for commercial utilization 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*.

37 *Id*., Section 2(d) states that: *bio-survey and bio-utilisation means survey or collection of species, sub-species, genes, components and extracts of biological resource for any purpose and includes characterisation, inventorisation and bioassay*.

- Non-citizens,
- Non-resident Indian[38]
- Entities including body corporates
  - Incorporated outside India or
  - Registered in India but having non-Indian participation in Share Capital or management[39].

Further, the Act bars the transfer of the results of any such research, referred to above, to any of the above persons without the prior approval of the NBA.[40] Perusal of the provisions shows that the requirement of prior approval is not applicable to Indian citizens and entities and Companies registered in India and not having non-Indian participation in share capital or management.

However, if the transfer or exchange of biological resources is for the purposes of approved collaborative research projects, there is no need for obtaining the prior approval of the NBA.[41] The provision has been inserted to promote such collaborative research projects, as may be approved by the Central Government from time to time keeping in view food security and international commitments.

Acquisition and registration of Intellectual Property for inventions based on Biological Resources obtained from India has also been regulated by the Act. It is stipulated that any person applying for registration of such IPR shall obtain the prior approval of the NBA. However, for patents, approval can be obtained after acceptance of patent but before sealing of the patent.[42] At the time of approval of the competent authority, may require benefit-sharing and impose such fee or royalty, as may be considered appropriate. However, applicant of IPR under Protection of Plant Varieties and Farmers Rights Act, 2001 is exempt from levy of benefit-sharing fee or royalty under the Act 2002.

Requirement of Prior Intimation

As discussed hereinbefore, Indian citizens and entities and body corporates registered/incorporated in India and having no non-citizen participation in share-capital or management are not required to obtain prior approval of NBA before obtaining Biological Resources for research, commercial utilization or bio-survey and bio-utilisation. However, it does not imply that they have no compliance requirements under the Act. Indian citizens, body corporates and entities registered in India are required to give prior intimation to State Biodiversity Boards (SBB) before obtaining any Biological Resources for commercial utilization or bio-survey and bio utilization for commercial purposes.[43] In line with mandate of CBD to recognize rights of indigenous people, the Act 2002 has exempted local

38 Section 2(30) read with Section 6(6) of Income Tax Act 1961 states that: *non-resident means a person who is not resident in India for a minimum period of 182 days in the relevant previous year*.

39 Section 3(2) of the Biological Diversity Act 2002.

40 *Ibid*, Section 4.

41 *Id*., Section 5.

42 *Id*., Section 6.

43 *Id*., Section 7.

communities, cultivators, growers and traditional medicine practitioners like *Vaidas* and *Hakims* from the requirement of prior intimation.

Perusal of the above provisions bring to surface that in case of non-citizens and foreign entities, there is a requirement for prior approval whereas in case of citizens and Indian entities, the requirement is of prior intimation. In both the cases, persons obtaining Biological Resources are required to ensure compliance with the provisions of the Act. However, with regard to FEBS of benefits arising out of the use of Biological Resources was concerned, there was misconception among Indian entities that they are not required to share benefits arising out of commercial use and exploitation of Biological Resources. The doubts and misconceptions regarding applicability of FEBS were rightly dispelled by the decision of Uttarakhand High Court in *Divya Pharmacy v. Union of India*[44]. In the instant case, Uttarakhand SBB levied FEBS on Divya Pharmacy to ensure sharing of benefits with the indigenous community. This was contested by the entity claiming that SBB has no power to levy FEBS on Indian companies using Biological Resources. It was contended that only non-citizens and foreign entities mentioned in section 3(2) are liable for sharing of benefits. The levy was challenged as unconstitutional as offending Article 19(1)(g) of the Constitution of India. However, the contentions of Divya Pharmacy were rejected by the Single Bench of Uttarakhand High Court directing the entity to share 20.4 million Rupees towards FEBS under ABS regime put in place by the Act 2002. The Court adopting purposive interpretation ruled that even Indian entities are required to abide by the FEBS under ABS regime and that the CBD does not differentiate between domestic entities and foreign entities exploiting Biological Resources. Thus, both Indian and foreign entities (Individuals, corporations, etc.) are required to comply with FEBS norms as is evident from examination of provisions of the Act.[45]

Implementation Mechanism under the Act 2002

Chapter III, VI and X of the Act contemplates establishment of mechanism for achieving the purposes of the Act. Perusal of the Act shows that three tier mechanism has been established for implementation of the Act i.e.

- National Biodiversity Authority
- State Biodiversity Board
- Biodiversity Management Committees

National Biodiversity Authority (NBA)

The Act 2002 has mandated the Central Government to establish NBA.[46] NBA is the nodal agency for carrying out the objectives of the Act 2002. Section 3, 4, 6 and 21 lay down the most important functions of the NBA pertaining to access to biological resources and FEBS. Application for obtaining prior approval before accessing Biological Resources in India by non-citizens and foreign entities is required to be made to NBA. The approvals for the same shall be granted by NBA after complying with the procedure prescribed under the Act. NBA is also

44 2019 (2) UC 1226.

45 Sections 3, 4, 6, 7, 19, 20, 21 and 23 of the Biological Diversity Act 2002.

46 *Ibid*, Section 8.

responsible for determination of equitable benefit-sharing. FEBS may partake any of the following forms:

- Transfer of technology
- Grant of joint IPRs
- Monetary compensation and non-monetary benefits
- Setting-up of venture capital fund for the benefit claimers
- Location of production and development etc for uplifting the standard of life of beneficiaries
- Association of Indian scientists in research and development[47]

As per ABS Guidelines 2014, NBA shall keep in mind various factors while determining FEBS *viz*., the potential market for the final product; investment in research and development; commercial viability and utilization of Biological Resources; risk involved in commercialisation of the product; technology employed; stage of research etc.[48] For ensuring benefit-sharing, 2014 guidelines provide rules for determination of the benefit to be shared by the application for obtaining Biological Resources. Rules 3 and 4 provide various options to the manufacturer/trader/applicant.

Option 1 - Such applicant may enter into prior benefit-sharing agreement with the tribal cultivator or forest dweller or Joint Forest Management Committee or gram Sabha and share benefit at-least at the rate of 3% of purchase price of Biological Resources in case the applicant is a trader and at-least 5%, if the applicant is a manufacturer.

Option 2- In case, the applicant has not entered into any prior agreement and the applicant is a trader, the liability to pay benefit-sharing shall be in the range of 1 to 3% of the purchase price, as may be determined by NBA. If the applicant is a manufacturer, the liability shall be in the range of 3 to 5% of the purchase price of the Biological Resources.[49] In case of high value Biological Resources like sandalwood, the liability to share benefit shall be atleast 5% of the auction or sale amount.

Option 3- The applicant has the option to share the benefit as a percentage of gross ex-factory sale price of the product after deducting the government taxes.

TABLE 1. RULE FOR DETERMINATION OF BENEFIT BY THE APPLICANT[50]

Annual Gross ex-factory sale of product (after deducting government taxes) (in Rupees)	Benefit-sharing Component
0 – 1,00,00,000	0.1 %
1,00,00,001 to 3,00,00,000	0.2 %
3,00,00,001 and above	0.5 %

47 *Id.*, Section 21.

48 Clause 14(2) of the Guidelines on Access to Biological Resources and Associated Knowledge and Benefits Sharing Regulations 2014.

49 *Ibid,* Rule 3.

50 *Id.*

Clause 4, Guidelines on Access to Biological Resources and Associated Knowledge and Benefits Sharing Regulations 2014.

NBA has also been conferred with advisory functions to advise the Union and State Governments in biodiversity conservation, sustainable use and for identification of biodiversity heritage sites. In addition, another important function cast on NBA is to oppose grant of IPR outside India on any Biological Resources obtained from India and associated TK.[51]

NBA has initiated action against many such applications for grant of IPR filed in foreign jurisdictions. As per NBA, Annual Report 2017-18, action was initiated in 42 cases as third party observation where patent applications were filed for obtaining patents based upon Biological Resources obtained from India like Turmeric, Ginger, Neem, Ashwagandha, Bay Leaf, Aloe Vera etc. Consequently, NBA received 3 applications for prior approval.[52]

State Biodiversity Boards (SBB)

SBB are required to be constituted at the State level and are important functionaries at the provincial level. At present all States have constituted SBB. Functions of SBB are analogous to the functions of NBA except with regard to jurisdiction. As stated earlier, every citizen and other Indian entities are required to give prior intimation to SBB before obtaining Biological Resources for 'commercial utilisation or bio-survey and bio-utilization for commercial utilization'. Such applications are required to be decided by the SBB and it has the power to regulate the approvals and prior intimations received under Section 7. As decided by Uttarakhand High Court in Divya Pharmacy, the SBB can also levy FEBS while performing regulatory functions envisaged by Section 23 of the Act 2002. SBB has the power to prohibit activities by Indian entities, if it is of the view that such activities are against the objectives of the Act 2002. However, before passing any such order, opportunity of being heard is required to be provided.[53] Apart from regulatory functions, SBB are required to advise the State Governments regarding conservation and sustainable use of biodiversity.

Biodiversity Management Committees (BMC)

Chapter X, Section 41 of the Act 2002 mandates every local body to constitute BMC "for the purpose of promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of landraces, folk varieties and cultivars, domesticated stocks and breeds of animals and microorganisms and chronicling of knowledge relating to biological diversity". BMC are entrusted with an important task of maintaining Peoples' Biodiversity Register (PBR)[54]. PBR is required to be maintained and validated by BMC. PBR is required to contain comprehensive information on

51 Section 18(4) of the Biological Diversity Act 2002.

52 *Supra* n. 31, p. 25.

53 Section 24 of the Biological Diversity Act 2002.

54 Rule 22(6) of the Guidelines on Access to Biological Resources and Associated Knowledge and Benefits Sharing Regulations 2014.

Biological Resources available within the jurisdiction of BMC, the uses of such Biological Resources and TK associated with them.

Status of Implementation of the Access and Benefit-sharing Mechanism

The Biological Diversity Act was enacted in the year 2002. To achieve the third object of the Act, NBA promulgated Guidelines on ABS Regulations, 2014. An analysis of the implementation of the Act, rules and regulations framed thereunder show that the implementation of the Act has been tardy to start with. However, recently, the implementation of the Act has gained momentum. Analysis of the Act shows that to obtain Biological Resources for research and commercial utilization, following applications are required to be made:

TABLE 2. APPROVALS GIVEN BY NBA FOR UTILISATION OF BIOLOGICAL RESOURCES[55]

Section of the Act 2002	**Form No.**	**Purpose**	**Number of applications**	**Number of approvals**
			i) From 2003-04 to 2016-17 ii) From 2017-18 to December 2021	
3	I	Access to Biological Resources and/or associated TK for research, commercial utilization, bio-survey or bio-utilization	i) 793 ii) 311	i) 319 ii) 107
4	II	Transfer the results of research	i) 50 ii) 41	i) 15 ii) 17
6	III	Seeking no objection to obtain Intellectual Property Right	i) 1190 ii) 3028	i) 274 ii) 2070
19	IV	Third Party Transfer of the Accessed Biological Resources and Associated TK	i) 82 ii) 16	i) 28 ii) 05
ABS Rules, 2014	B	Non-commercial research or Emergency purpose research outside India by Indians	i) 39 ii) 168	i) 12 ii) 135

As per the data available, from 2003-04 to 2016-17, NBA received total of 1741 applications regarding the above approvals whereas from 2017-18 to December 2021, NBA has received a total of 3990 applications for various approvals. This shows that of late, compliance rate of the Act has improved owing

55 NATIONAL BIODIVERSITY AUTHORITY, http://www.nbaindia.org/, (visited on January 20, 2022).

to constitution of SBB and BMC. Perusal of the above table clearly shows that the number of applications for approval for different purposes and the approvals granted has shown a steep increase when the data from 2003-04 5o 2016-17 is compared with the data from 2017-18 till December 2021. From the enactment of the Act 2002 till December 2021, NBA has received 5731 applications of which 4544 have been approved and model agreement has been sent to agreement. Out of these, 2982 applicants have signed the model agreement and remaining are pending with the applicants. 881 applications have been closed and 261 are under process. The data brings to surface that the activities and use of the Act has increased in the previous five years especially after the enactment of 2014 guidelines.

SBBs have been constituted in all States. As of January 4, 2022, total of 2,76,690 (271794 in States and 4896 in UTs) BMC have been constituted in the country.[56] As of January 4, 2022,[57] 2,65,458 BMCs (2,60,667 in States and 4791 in UTs) have maintained PBR. Annual reports of NBA bring to surface that the receipt of benefit-sharing component is also on the rise and the same is distributed among the beneficiaries/indigenous people. Further, to ensure smooth functioning of the ABS mechanism, NBA has taken steps for e-filing of various applications.

Conclusion

Perusal of the foregoing discussion shows that India signed CBD as well as the Protocol 2010 and fulfilled its international commitments by enacting the Act 2002 and Biological Diversity Rules, 2004. However, ABS mechanism was not formally put in place in India till 2014. It was in 2014, ABS Regulations were promulgated. India has, thus, come a long way in complying with the mandate of the CBD. Of late, the implementation of the CBD and ABS has improved significantly. However, despite the recent improvement in the implementation of the biodiversity law and the ABS mechanism, the progress is far from satisfactory. Though, of late, BMC have been constituted and they have started maintaining PBR yet the progress is at the nascent stage and there are various issues some of which are outlined hereinafter.

The terminology employed in CBD and the Act 2002 is different. CBD provides for ABS of the benefits arising from the utilisation of genetic resources whereas the Act 2002 deals with Biological Resources. Both the terms may be interpreted differently. Owing to different and complex terminologies employed confusions and doubts arise. For example, Madhya Pradesh SBB declared coal to be a biological resource claiming that coal is fossil fuel which is formed from the remains of vegetation and is a part of plant origin. Accordingly, MPSBB levied Coal companies to share the benefits arising from use of biological resources. The matter had to settled in appeal by the National Green Tribunal[58] vide its decision dated October 6, 2015, wherein NGT Central Bench Bhopal declared that the coal

56 "*Biodiversity Management Committees*", NATIONAL BIODIVERSITY AUTHORITY, http://nbaindia.org/content/20/35/1/bmc.html, (visited on January 20, 2022).

57 *Ibid*.

58 *Biodiversity Management Committee, Chhindwara v. Union of India* Original Application No. 28/2013.

is not a biological resource. There are issues regarding what constitutes biological resource and what is a value-added product. For example, Rice seeds are biological resource but whether rice flour milled from various varieties constitute Biological Resource? For example, Chaywanprash contains extracts of plants but it is not a biological resource rather a value-added product. Such intricacies and lack of awareness hinder the filing of applications since the applicants are not aware of whether their products require approval from NBA.

The Protocol 2010 and ABS Regulations 2014 primarily aim at sharing of benefits arising out of the utilization of Biological Resources on FEBS principle. But the real question is what is Fair and Equitable? What are the parameters for determining FEBS? Phrase 'Fair and Equitable' is contextual and uncertain. The implementation mechanism has a tedious task of determining the quantum of benefit to be shared with the local communities and indigenous people. The parameters have been laid down in ABS Regulations 2014 for collecting of benefit-sharing component from trader, manufacturer etc., however, the sharing of the same with the beneficiaries is required to be clarified and there are hardly any concrete guidelines on this aspect. It is, further, required to be ensured that the measure of imposing benefit-sharing fee upon traders, manufacturers, and transferees etc. shall not become a mere fee/tax collection measure rather it should serve the purpose of sharing the benefit equitably with the beneficiaries.

It may also be noted that CBD uses the term Prior Informed Consent (PIC) whereas the Act 2002 requires prior approval for non-citizens, foreign entities and prior intimation for Indians and Indian entities. Intimation and Informed consent have different domains. PIC used in CBD is much wider than the mere intimation used in the Act 2002 restricting the coverage of the Act.

Another major issue with ABS mechanism is the identification of beneficiaries and accessors of Biological Resource. Analysis of Kani Tribe case from Kerala brings forth the point that due to difficulties in identification of beneficiaries and accessors of Biological Resources, implementation of the mechanism is quite difficult. Kani Tribe received attention at the international level for their TK and medicinal use of Trichopus zeylanicus plant for rejuvenation and for cure for fatigue. The magic cure gained popularity and much before the enactment of ABS mechanism in India, ABS was agreed for manufacturing of plant based drug 'Jeevani' in 1995. Trust consisting of tribals was constituted who was given the share of benefit from commercial production of the drug. The arrangement for benefit-sharing proved successful for the initial few years, however, issues arose as to who are the real beneficiaries as other villagers of the tribe were not consulted and due to such issues, the marketing of the drug failed.

Further, the mechanism is primarily dependent upon self-declaration i.e. when the person or entity wants to access Biological Resources, he is required to intimate on his own. However, there are issue like what is access? What is the point of access? Whether the access implies obtaining the raw Biological Resources or it implies when the Biological Resources has been obtained for bio-survey and bio-utilization or commercial utilization? All these questions require clear and

simplified answers. Also, the Act does not have any provision for search and seizure though the Act has provisions for penalties and offences.

By virtue of Section 40 of the Act 2002, the Act and the mechanism is not applicable to Biological Resources which are normally traded as commodities. Central Government has been empowered to notify such Biological Resources which are normally traded as commodities. Long list of such items have been notified in 2016.[59] These items include both cultivated and their wild relatives. This further complicates the issue as to what is Biological Resources.

Assessment of ABS is also intricate. Since FEBS on MAT is the core value of CBD and the Benefit-sharing may partake monetary and non-monetary forms, sometimes the accessor of Biological Resources may offer movable/immovable property in bargain for ABS determined by the authority. There are no guidelines in the Act or SOP for dealing with such issues.

India has done its bit in enacting the law and putting in place a mechanism for sharing of benefits. However, still much is desired. To help improve the implementation of the mandate of the Act, a few suggestions are preferred hereinafter.

The concept of FEBS is required to clarify the parameters and the jurisprudence of concept must be developed. The measure of imposition of benefit-sharing component upon companies, entities, and traders, etc. should not become just another fee collection measure but the benefit should be passed on to the indigenous communities in a fair and equitable manner so as to promote the objectives of the CBD and the Protocol 2010.

The implementation mechanism i.e. the staff of SBB and BMC are required to be adequately acquainted with the nuances of the Act 2002 and the mandate of CBD to avoid unnecessary litigation regarding the scope of the Act. Further, the present system is totally dependent on self-declaration. BMCs are required to identify the users and accessors of Biological Resources and also the beneficiaries. Despite two decades of the enactment of the Act 2002, there are some BMCs who have not maintained PBR. Many BMCs are non-functional. Therefore, there is a need to augment the resources of BMCs.

There is an urgent case for simplification of the provisions of the Act to align it with the mandate of CBD and also to simplify the procedures. The conceptual clarity and certainty are required. It is, therefore, required that the concept of Biological Resources, Bio-survey and Bio-utilization are defined with more precision.

Section 7 and section 23 of the Act 2002 should be suitably amended to clearly provide that Indian Citizens and Indian entities using Biological Resources are also required to comply with ABS mechanism to dispel misconceptions about the applicability of the Act despite judicial decisions.

---

59 Notification dated April 7, 2016 - S.O. 1352(E) of the Biological Diversity Act 2002, http://ismenvis.nic.in/Database/Notification_07th_April_2016-SO1352E_12862.aspx, (visited on November 26, 2021).

India is a mega biodiverse country and has huge potential for sustainable use of biodiversity. India has made a good beginning and it is believed that the above suggestions would go a long way in better implementation of the mandate of CBD for Access and Benefit-sharing.

***

IDENTIFICATION OF BENEFIT-CLAIMERS FOR EFFECTIVE IMPLEMENTATION OF ACCESS AND BENEFIT-SHARING MECHANISM IN INDIA

Trishla Dubey[♣]

Abstract

Access and Benefit-sharing Mechanism under the UN Convention on Biodiversity, 1992 and The Biological Diversity Act 2002 (the Act 2002) provides that access to genetic resources is regulated to ensure their sustainable use and that the benefits arising from the utilisation of biological resources should be shared with indigenous peoples and local communities. To achieve the objective of access to genetic resources, sustainable use, and to ensure fair and equitable sharing of benefits, Nagoya Protocol (the Protocol 2010) to the Convention on Biological Diversity has been adopted. The Protocol 2010 provides for fair and equitable sharing of benefits. However, to ensure fair and equitable sharing of benefits the identification of benefit claimers is of utmost importance. The author argues that the identification of benefit-claimers is required for ensuring biodiversity justice and for conservation and sustainable use of biological resources.

Keywords: Access and Benefit-sharing, Biodiversity, Benefit-claimers, Conservation.

Introduction

Biodiversity conservation requires a multifaceted and multipronged approach. Since conservation of biodiversity is a common concern of the entire humankind,[1] it requires the participation of all sections of the society, be it the government, non-governmental institutions, private bodies, research institutions, civil society, or local and indigenous peoples. The role of those who are directly dependent on biodiversity and its resources for the sustenance of their livelihood is of utmost importance. These people are the key stakeholders known as 'benefit-claimers' under the Act.[2] Roughly, 1.6 billion people which is almost 25% of the world population rely on based forest-based resources for their livelihood.[3] Of these, 60 million[4] are indigenous peoples.[5] They constitute just 5% of the world population

♣ Assistant Professor of Law, Maharashtra National Law University, Nagpur, e-mail: trishla@nlunagpur.ac.in .

1 Preamble of the United Nation Convention on Biodiversity 1992.

2 Section 2(a) of the Biological Diversity Act 2002.

3 Erna Solberg, "*What Role Do Indigenous People and Forests have in a Sustainable Future?*", SUSTAINABLE DEVELOPMENT GOALS, https://www.un.org/sustainabledevelopment/blog/2015/05/what-role-do-indigenous-people-and-forests-have-in-a-sustainable-future/, (visited on November 22, 2021).

4 *Ibid.*

5 V.M. Toledo, "*Indigenous Peoples and Biodiversity",* ENCYCLOPAEDIA OF BIODIVERSITY", 1999, states that: *The indigenous people are defined as ecosystem*

but 10 to 30% of the world's poorest population.[6] Indigenous people live in the closest proximity of the biodiversity conservation areas like national parks, wildlife sanctuaries, conservation areas, community areas, forests, and other protected areas rich in biodiversity. Their life and livelihood are so well engrained with the surrounding environment for centuries that they portray a beautiful example of the peaceful co-existence of humans with nature. Their close and traditional dependence on biological resources is also recognized under the UN Convention on Biological Diversity, 1992 (CBD). The CBD recognises its right to equitable sharing of benefits arising from the use of traditional knowledge, innovation, and practices relevant to the conservation of biological diversity and the sustainable use of its components.[7] The Convention also obliges contracting parties to respect, preserve and maintain knowledge, innovations, and practices of indigenous and local communities by enacting national legislation in this regard. The CBD requires that its intellectual wealth should be utilised for conservation and sustainable use of biological diversity with their approval and involvement.

The Protocol 2010 mandates the sharing of benefits[8] arising from the use of genetic resources in a fair and equitable manner between the providers of such resources or the acquirer with the Convention on mutually agreed terms[9] with Prior Informed Consent (PIC) of the providers of biological resources.[10] The Protocol 2010 seeks to protect indigenous peoples and local communities (the conservers of biodiversity and resource providers) through fair and equitable sharing of benefits, also known as the ABS mechanism, and recommends nations to protect the traditional knowledge (TK) of these communities through national legislation and policies.[11]

Need to Identify Benefit-claimers

Indigenous peoples are usually conservers of biodiversity but they have faced injustices in the form of displacements from lands and territories occupied by them and have been deprived of access to resources customarily used by them. However, they are important stakeholders in biodiversity, and their identification, cooperation, and participation are required for the effective implementation of the mandate of CBD, for which India has enacted the Act 2002. Some of the important reasons for the identification of benefit claimers are explained hereinafter.

Conservation of Biodiversity

Indigenous and local communities have maintained a peaceful coexistence with nature for centuries. They are instrumental in the preservation of genetic resources.

---

people who practice shifting or permanent cultivation or our herders, hunters, gatherers, fishers, handicraft makers.

6 *Ibid.*

7 *Supra* n. 1.

8 Benefits may include monetary and non-monetary benefits under the protocol.

9 Article 5(1) of the Nagoya Protocol 2010.

10 *Ibid*, Article 6(1).

11 *Id.*, Article 12.

Genetic and natural resources have not only economic significance for these communities but also have cultural, social, and spiritual importance. For example, the Hindu community of *Gujjars* has been known to protect Langur Monkey and Squirrels as these are part of their *Dharma*.[12] These communities don't perceive nature and its components as a resource; rather they consider it as an inherent part of their existence. It is for this reason that CBD, in its Preamble, recognises the close and traditional dependence of indigenous and local communities embodying traditional lifestyles based on biological resources. Since the entire debate is about the conservation of diversity biodiversity through its sustainable use, there can be no one better than indigenous people to achieve this objective.

Further, they are gatekeepers of forests and areas rich in biodiversity and also of the biological resources found at such places. Owing to their existence with such biological resources, they have accumulated a wealth of knowledge about the species found in those areas and such knowledge has transcended from one generation to the next generation and has become part of their culture and style lifestyle. This knowledge, generally referred to as 'Traditional Knowledge' regarding the existence and use of biological resources is considered important, and the indigenous communities considered are the owners of such knowledge. Their participation in decision-making is crucial for the sustainable use of biological resources and hence they need to be incentivised for sustaining biodiversity and the same can be achieved only by benefit-sharing, however, it must also be ensured that over-commercialisation be avoided and the same can be achieved by providing adequate and efficient regulatory mechanisms working in tandem with indigenous peoples.

To ensure 'biodiversity justice'[13], the access and benefit-sharing mechanism under the Act 2002 provides for fair and equitable sharing of benefits arising out of the utilisation of biological resources.[14] Access and Benefit-sharing (ABS) Mechanism is based on equity, fairness, and reciprocity. The principle of equity demands that the sharing of benefits should be made with these indigenous and local communities as an acknowledgment of their age-old contribution towards the conservation of biodiversity and because these communities are dependent majorly on biological resources for their survival. The principle of fairness relates to the amount that should be shared under ABS with these communities identified as benefit claimers under the Act 2002. It also includes fairness in the identification of benefit claimers, transparency of procedure followed in benefit-sharing, and

12 Prabodh K. Maiti and Paulami Maiti, BIODIVERSITY PERCEPTION, TERI AND PRESERVATION, 2nd ed. 2017, p. 429.

13 Biodiversity justice refers to recognition of individual and community rights on biological resources, the existence of deliberative and democratic participation and finally capacity building of individuals, groups and nonhuman parts of nature. The UN Development Program defines access to justice as the ability of people to obtain redressal of their claims through formal or informal institutions of justice in conformity with human rights standards.

14 Preamble of the Biological Diversity Act 2002.

accountability of the authorities implementing the ABS Mechanism. This right to redressal is recognised under the Act 2002 and the Biological Diversity Rules 2004, and the Guidelines of 2014.[15] This further makes the identification of benefit claimers necessary as it would decide the standing of an individual or community before the adjudicating authority.

Right to be Consulted and Right to Participate in Decision Making Process

International instruments have identified 'Duty to Consult' as an important duty of the government when making any decision concerning the environment and related areas. The principle contemplates that the community is consulted before interference with their rights. This consultation must be meaningful and their consent must be prior and informed.[16] Non-fulfilment of this requirement has led to litigation in many jurisdictions like Canada.[17] Indigenous peoples dissatisfaction can also lead to the protest movement and community unrest. In India, the Indian Forest Act 1927, Forest Rights Act 2006, Wildlife Protection Act 1972, and Environmental Impact Assessment Notification 2006 have provisions regarding the participation of indigenous and local people in decision making. The process of consultation and participatory decision-making also requires that the identification of the community or people who are required to be consulted.

Use of Indigenous Knowledge for Human Welfare

Indigenous ecological knowledge is based on empirical knowledge of the natural system accumulated by the tribals or local communities, whilst dealing with nature and natural elements.[18] According to Gadgil, Indigenous knowledge is a cumulative body of knowledge and benefits handed down through generations by cultural transmission about the relationship of living beings including humans, with one another and their environment. It is unique to a given culture or society.[19]

Indigenous knowledge is also known as 'traditional knowledge', 'traditional ecological knowledge', or 'local knowledge' which evolved through long-standing traditions and practices through generations.[20] This wealth of knowledge base concerns itself with the use and properties of various biological resources which can be used for its consideration. Indigenous knowledge can be of immense benefit to mankind. For example, the Kaani tribe people were aware of the anti-fatigue

15 *Ibid*, Section 52 and 52A.

16 P.V. Reachey Smith et. al. "*Building Relationships Among Forest Stewards: Principles for Meaningful Consultation with Aboriginal Peoples on Forest Management in Canada*", NATIONAL ABORIGINAL FORESTRY ASSOCIATION, 2000.

17 *Haida's case, R. v. Sparrow* [1990] 3 C.N.L.R 160 (S.C.C.).

18 P.S. Ramakrishnan, ECOLOGY AND SUSTAINABLE DEVELOPMENT, 2nd ed. 2015.

19 M Gadgil and R. Guha, "*The Use and Abuse of Nature*", 2000.

20 Margaret Bruchac, "*Indigenous Knowledge and Traditional Knowledge*", UNIVERSITY OF PENNSYLVANIA SCHOLARLY COMMONS, 2014, https://repository.upenn.edu/cgi/viewcontent.cgi?article=1172&context=anthro_papers, (visited on November 26, 2021).

properties of *aarogyapacha* plant which was unknown to the scientific community. This tribe helped the researchers discover this plant and share the benefit with the people through its use and commercialisation.[21] The welfare of humankind is thus implicit in the identification, decoding, codification, and use of TK for the welfare of humanity while sharing the benefits from its use with TK holders necessitating the need for identification of such communities.

Further, the ABS mechanism provided under the Act 2002 contemplates granting of IPR as also one of the monitory benefits. Section 21 authorises National Biodiversity Authority to determine the modalities of equitable benefit-sharing with the providers of biological resources.[22] Joint ownership can be granted to the NBA and wherever the benefit claimers are identified it should be granted to such benefit claimers. Since IPR can bring a whole lot of benefits to the community in the form of regular payments, royalties on commercialisation, reputational benefit, protection on infringement in the form of redressal through well-established mechanism, it is important that benefit claimers should be properly identified.

The foregoing discussion takes us to the moot question as to who are benefit claimers and how to identify the benefit claimers while providing access to biological resources in a given situation.

Identifying the Benefit-claimers

There are broadly two categories of stakeholders under the biodiversity legal framework, *first*, the users like industries and research institutions, utilising the biological resources for commercial or research purposes, and *second*, the providers of biological resources which includes the country of origin, the country which has lawfully acquired the biological resource and the indigenous or local people. Duty is cast upon the national and regional governments to ensure passing on of the benefits arising from the utilization of biological resources and TK to the benefit claimers

Owing to these reasons, the term benefit claimers has been defined under the Act 2002 and the Guidelines 2014. The Act 2002 defines benefit claimers as the "conservers of biological resources, their by-products, creators and holders of knowledge and information relating to the use of such biological resources, innovations, and practices associated with such use and application".[23] The Act 2002 provides a broad definition of benefit-claimers. The definition includes all the conservers of biological resources within its fold. Determination of an individual or community as a conserver is a cumbersome task and there are no guidelines as of date for determination of a conserver. *First*, clarification is required on the minimum time duration required for being classified as a conserver. The process,

21 R.V. Anuradha, "*Sharing with the Kanis: A Case Study from Kerala, India*", CBD INTERNATIONAL, https://www.cbd.int/financial/bensharing/india-kanis.pdf, (visited on November 26, 2021).

22 Section 21 of the Biological Diversity Act 2002.

23 *Ibid*, Section 2(a).

eligibility, etc for such determination have not been laid down making it extremely difficult to classify as to who is a conserver of biological resources. *Secondly*, the conserver of not only biological resources but someone who preserves the by-products of biological resources is also entitled to be a beneficiary. The term by-product is not defined in the Act 2002.

The National Green Tribunal (NGT) in *BMC v. Western Coalfields*[24] have given some insights on the meaning of the term 'by-product'. NGT in this case has relied on the Oxford dictionary for defining the term 'by-product'. This term refers to an incidental or secondary product made during the manufacture of the primary product or synthesis or something else. According to the law lexicon[25], it refers to the secondary or additional product. According to Murray's Dictionary, it is a secondary product, a substance of more or less value obtained in the course of a specific process though not its primary object. According to NGT, the legislative intent must have been in favour of protecting those by-products which have got some commercial value or potential commercial value to the extent that its commercialisation will lead to depletion of the biological resource.[26] Thus, any ancillary product from biological resources that has some economic value or economic potential and is not a value-added product can be classified as a by-product, and the conserver of this by-product also becomes a beneficiary. This gives an enormous amount of discretion to the deciding authorities about a beneficiary and non-beneficiary.

Further, the creators and holders of knowledge and information relating to the use of such biological resources, innovations, and practices associated with such use and application are also classified as benefit claimers under the Act. On bifurcating this last line into two, the first part deals with creators and holders of knowledge relating to biological resources innovation and practices, and the second part deals with the holders of information relating to the use of such biological resources innovations in practice is associated with the use of an application. With respect to the first part, there is not much confusion because of the prevalence and the limited understanding of traditional knowledge that has developed in recent years. For the protection of TK, the Ministry of Environment, Forest, and Climate Change (MoEFCC) is now taking initiatives like establishing a Traditional Knowledge Digital Library (TKDL), an online platform containing information about Traditional Knowledge holders and the associated biological resources. With respect to the second part, which deals with the holders of information there is not much clarity. For example, if people of village A are the creators of a new application of biological resource but people of village B merely have the information of such usage then should both the categories of people belonging to villages A and B should be allowed to be benefit claimers under the Act?

24 NGT issued the order on October 16, 2015.
25 Wharton, LAW LEXICON, 17th ed. 2017.
26 *Supra* n. 24.

The definition of the term benefit claimers is sought to be amended by The Biological Diversity (Amendment) Bill, 2021. The Bill defines the term 'benefit claimers' under section 2(aa) of the Act 2002 as "the conservers of biological resources, their by-products, creators or holders of associated traditional knowledge thereto (excluding codified traditional knowledge only for Indians) and information relating to the use of such biological resources, innovations, and practices associated with such use and application". Analysis of the proposed definition brings to the surface that the expression 'creators and holders' in the original Act is proposed to be replaced by 'creators or holders' thereby enlarging the scope of the section. Now, both creators and holders of associated traditional knowledge can be benefit claimers under the Act 2002. However, before knowledge, 'associated traditional knowledge' has been added. The exclusion of 'codified traditional knowledge only for Indians' is beneficial to AYUSH practitioners and manufacturers. The codified knowledge systems in India is not precisely defined anywhere but it can be understood to include the Ayurvedic system of medicine, the Siddha systems, and Unani systems but it is unclear whether it includes traditional knowledge.[27] The proposed amendment do not lay down any process for the determination of benefit claimers.

Conclusion

CBD has laid down emphasis on the protection and sustainable use of biodiversity and for sharing of benefits arising out of utilisation of genetic resources. Owing to the mandate of CBD, India enacted the Biological Diversity Act, 2002 and under the Act, ABS Regulations have been notified. Indian law, in line with international commitments, provides for sharing of benefits of access to biological resources and TK with benefit claimers or indigenous communities. The term 'benefit claimers' has been widely and loosely defined. The parameters for determining who can be said to be conservers of biological resources or creators and holders of TK have not been adequately laid down in the law. It is extremely difficult to identify as to whom the benefit shall be passed on or who is entitled to such benefits. The failure of the arrangement in Kani Tribe matter after initial success is attributable to this factor. It is, therefore, important that parameters and best practices for the determination and identification of benefit claimers be specified in Rules.

Parameters for the identification of benefit claimers should be laid down in the Rules. Further NBA should issue appropriate guidelines to State Biodiversity Boards and Biodiversity Management Committees in this regard. Appropriate measures should be taken for creating awareness about the legal rights and laws pertaining to biodiversity, especially among the indigenous people and local communities residing in the proximity of the place where biological resources are

27 "*Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Forty-First Session Geneva*", August 30 to September 3, 2021, https://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_41/wipo_grtkf_ic_41_inf_7.pdf, (visited on November 24, 2021).

found. This will enable claimers to come forward which will in turn help in identification of benefit claimers. Peoples' Biodiversity Register (PBR) contains information about local biological resources, their use and traditional folklore knowledge associated with them. The PBR can help in identification of benefit claimers.[28]

***

28 *Chandra Bhal Singh v. Union of India* 2019 SCC OnLine NGT 2749.

ACCESS AND BENEFIT-SHARING MECHANISM: LEGAL ISSUES AND IMPLEMENTATION CHALLENGES IN INDIA

Vandana Singh[♣] *and Mehak Rai Sethi*[♠]

Abstract

The United Nations Convention on Biological Diversity 1992 (CBD), recognises the need for securing global protection for biological diversity. Nearly three decades have passed since it came into being, however, there is still one element in it which often ensues hot debates, i.e., its provisions relating to Access and Benefit-sharing (ABS). The need for inclusion of the ABS Mechanism under the CBD was propelled by the ascendancy of biological resources and their conservers in the world, and also by the need for providing access to the innovators for creating their technical knowledge-based inventions/innovations, associated with these biological resources. The member countries were directed to devise their own strategies for the implementation of ABS Mechanisms in their jurisdictions to avail the advantages of the Convention. Being a signatory to the Convention, just like all other member countries, pressure was exerted upon India as well, to devise its own legal framework for clarifying its stand on the ABS issue. It was indeed a major challenge for a diverse country like India. This paper is therefore, an attempt to understand the various legal issues and implementation challenges associated with the legislation, with a special emphasis upon ABS Mechanism. The authors believe that there is a great scope of making improvements in the law for its better enforcement and implementation, for which some recommendations have been provided.

Keywords: Access and Benefit-sharing, Biological Diversity, Cartagena Protocol, Nagoya Protocol.

Introduction

The biological diversity is a unique blend of varied multiplicities of organisms, co-existing in the living world. It consists of an assorted pool of genetic diversity that provides infinite possibilities to create more such varieties, and resultantly enriches existing stock of resources. The genetic variations, especially of plants, form the basis for major improvements in the field of biotechnology. Even 'Taxonomy', or the study of classifying and identifying species, relies heavily on genetic resources. These taxonomic studies are found essential, especially for the purpose of environmental conservation. They are the foundations for species on the

♣ Assistant Professor of Law, University School of Law and Legal Studies, Guru Gobind Singh Indraprastha University, Delhi, e-mail: vandana.singh@ipu.ac.in .

♠ Ph.D. Scholar, University School of Law and Legal Studies, Guru Gobind Singh Indraprastha University, Delhi, e-mail: mehak.rai.sethi@gmail.com .

earth.[1] Thus, it can be said that 'Bio-diversity' is a fabric of various complex resources bound together through an interlinking thread, to maintain the smooth functioning of the whole system.

As per the Convention of Biological Diversity 1992 (CBD), "*Biological diversity means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems*".[2] By implication, this definition gives a vast connotation to the concept of 'Biological Diversity'.

The biodiversity is well-endowed with copious and varied resources, albeit these resources are not spread evenly throughout the world. Some nations have some resources in abundance, while the others may not possess the same to an equal extent, though it may have some other resources in abundance. There are even a few nations which are not quite blessed to have any such resources, even to satisfy their own basic needs. Thus, the concept of 'Access and Benefit-sharing' (ABS) may help all the nations to satisfy their demands of requisite natural resources, while at the same time incentivise the ones with abundance of these resources to grant the access to others through ABS mechanism.

The issue of Access and Benefit-sharing (ABS) traversed three international treaties, namely, the Convention on Biological Diversity 1992 the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) 1995 and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) 2001. In pursuance of achieving the objectives of these International Conventions and Treaties, the nations tailored their own domestic legislations to accommodate the concept of ABS in their respective legal systems. India is no exception to this, it devised its own law to suit its needs and to cater to its requirements.

This paper is an attempt to analyse various legal issues and challenges for implementation associated with the Indian legislations, with a special emphasis upon the operation of the ABS Mechanism. It is also an endeavor to draw out a few possible solutions to address the prevailing issues and recommend ways for better enforcement and implementation of the ABS Mechanism in India.

Need for Sustainable Use of Genetic Resources

In the past few decades, Plant Genetic Resources (PGRs) were often referred to as the resources coming under the ambit of 'common-heritage of mankind'. This had the implication of rendering PGRs 'freely accessible commodities' in the nations around the world.[3] With the PGRs amassing great significance, a need to

1 "*Convention on Biological Diversity - ABS; Uses of Genetic Resources*", CBD INTERNATIONAL, 2010, https://www.cbd.int/abs/infokit/factsheet-uses-en.pdf, (visited on November 27, 2021).

2 Article 2 of the Convention of Biological Diversity 1992.

3 Carolina Rao-Rodriguez and Thom Van Dooren, "*Shifting Common Spaces of Plant Genetic Resources in the International Regulation of Property*", JOURNAL OF WORLD INTELLECTUAL PROPERTY, Vol. 11 No. 3, 2008, pp. 176-202,

devise protective measures in place to preserve the limited resources captured the world's attention. It was mainly triggered by the mounting attention that was being laid upon the issue of protection of Intellectual Property (IP) in Plants by the western nations.[4]

Over the years, many nations around the world, including the developed and the developing ones, wrangled and debated the issue of protecting the PGRs and to provide a legal framework for benefit-sharing. These debates flowed like a thread; throughout the wide-spread layout of these three important international treaties.

The protection and restoration of affected ecosystems and habitats, as well as the preservation and recovery of species, are all part of the process of maintaining and preserving biodiversity. It is believed that a sustainable biological diversity management does not result in biodiversity loss; it is, rather, the prudent use of natural resources and the preservation of biodiversity potential that meets the needs, goals, and ambitions of current and future generations.[5]

Instruments Governing Access and Benefit-sharing: International Scenario

The Convention on Biological Diversity 1992

The Convention on Biological Diversity 1992 (CBD) came into existence as the first ever wide-ranging and comprehensive framework for tackling the varied aspects of biodiversity. The inclusion of ABS in the convention was rooted in the ascendancy of biological resources and associated technical knowledge-based inventions, research and products coming into the market in the early 1990's. It came to be seen as a very promising framework. It was faced with the responsibility of conserving biodiversity at large.

Largely, the developing countries were the ones which were imposed with the greatest responsibility to conserve biodiversity, along with a few developed countries as well. This was seen as necessity to ensure 'Sustainable Development', mainly founded on the principle of 'Current Equity and Inter-Generational Equity'. Consequently, there was an agreement, in pursuance to which the main crux of debate was countries providing and conserving resources and creation of traditional knowledge that would be contributing to the development of the products. The developing countries which were rich in biodiversity, naturally viewed it as an opportunity to help in generating the resources for conservation and creating constituency for conservation. These were the considerations of the developing countries. Therefore, in the global negotiations, this, therefore became an important agenda. Due to this, ABS became an important provision included under the CBD. It was visualised that the countries would formulate legislative and administrative

---

https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1747-1796.2008.00342.x, (visited on November 3, 2021).

4 Prashant Reddy, "*Access to Plant Genetic Resources and Benefit-sharing: Has India Lost the Plot*?", INTELLECTUAL PROPERTY QUARTERLY, Vol. 3, 2020, p. 181.

5 Mirjana Milošević et.al. "*The Importance and Implication of Genetic Resources in Agriculture*", GENETIKA GENET, Vol. 42, 2010, pp. 585-597, https://www.researchgate.net/publication/49600678_The_importance_and_implication_of_genetic_resources_in_agriculture, (visited on November 25, 2021).

instruments to see that access to biological resources is granted for the benefit of providers, without hindering the ongoing process of Research and Development. Therefore, the intent was to push the countries to facilitate access to biological resources on the fulfilment of certain terms and conditions, as they may deem necessary.

The countries those were the parties to the Convention, faced with the challenges of devising strategies to take benefit out of the Convention. They were required to draft instruments to provide a framework to govern ABS in their respective jurisdictions.

The terms and requirements for ABS are dealt under Article 15 of the CBD. It acknowledges States' sovereignty and autonomy over their natural resources and stipulates that access to these resources requires the contracting parties providing the resources to give their Prior Informed Consent (PIC). It further states that such access would be granted on Mutually Agreed Terms (MAT) in order to guarantee that the benefits derived from the commercial or other use of these genetic resources are shared with the contracting party that provided them.[6]

A major challenge faced by most of the countries was the issue of 'extra-territorial nature of the research and product developed'. The parties to the Convention thus created another instrument for the implementation of the same called Nagoya Protocol on Access and Benefit-sharing 2010 (the Protocol 2010), however, before delving into the nature and extent of this protocol's extension into the ABS system, it is pertinent to understand a crucial set of guidelines, also known as the 'Bonn Guidelines'.

Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization 2002

Despite the fact that the CBD was adopted in 1992 and came into force by the end of 1993, it was not until 1999 that work on bringing its provisions into effect began. The Bonn Guidelines were the product of an inter-governmental meeting held in October 2001 to develop the first draft, which was finally endorsed by the Conference of the Parties to the Convention at its sixth meeting, held at Hague in April 2002, with some minor amendments.[7]

The guidelines were unanimously adopted by around one-hundred and eighty nations, thereby giving it undisputable authority in the international sphere. They were introduced to supplement the already existing international framework for ABS, and without any prejudice to the existing provisions, both internationally and domestically. Following were the key objectives with which these guidelines were introduced to:[8]

---

6 *Ibid*.

7 "*Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising Out of Their Utilization*", UNITED NATION ENVIRONMENT PROGRAMME, 2002, p. III, https://www.cbd.int/doc/publications/cbd-bonn-gdls-en.pdf, (visited on November 25, 2021).

8 Clause 11 of Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization 2002.

- offer a transparent framework for parties and stakeholders to ease the access to genetic resources and guarantee a fair and equitable distribution of benefits;
- inform behaviors of users and providers (stakeholders) and also provide information about their practices and approaches in ABS frameworks; and
- encourage proper and effective transfer of relevant technology to State parties, particularly the developing nations, especially the least developed countries, stakeholders, and indigenous and local populations.

The list of its objectives is comprehensive, but the essence of all can be extracted from the three broad objectives, as mentioned above. The Bonn Guidelines were created to give guidance on a variety of topics, including- (i) defining various phases in the ABS process, with a focus on the users' duty to seek PIC from providers; (ii) determining the pre-requisites for MAT; (iii) delineating the primary tasks and duties of users and providers, as well as emphasising upon the pertinence of all stakeholders' participation; and (iv) other features like incentives, accountability, verification methods, and conflict resolution.[9]

The guidelines were hailed as a significant first step in an evolving process for implementing ABS-related elements of the CBD. The Bonn Guidelines provided framework for implementing ABS principles, although they are optional and do not have complete legal certainty. The Protocol 2010, which came later, aimed to give better clarity, thereby allowing users and providers to have more trust in one another. The protocol is explained in more detail in the foregoing section for getting a better understanding of its framework.

Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits 2010

The Protocol 2010 came as an agreement to supplement the CBD, 1992. It came to address the issue of Access and Benefit-sharing of genetic resources, which also constituted one of the main concerns of the Convention.[10] The Protocol was adopted on October 29, 2010 in Japan and brought into effect from October, 2014, when it received ratifications from majority members. India became a signatory to it on May 11, 2011. Presently, it holds a total of 128 ratifications, including various Member Nations of the United Nations (UN) and the European Union (EU). The main objective of introducing this protocol was to ensure apposite access to genetic resources and efficient and judicious utilisation of the resources.

Agreement on Trade-Related Aspects of Intellectual Property Rights

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) 1994 is an important international instrument that deals with various forms of Intellectual Properties (IPs) and provides suitable protection mechanisms for them. The members of the World Trade Organisation (WTO) bound by the

9 Thomas Greiber et. al. AN EXPLANATORY GUIDE TO THE NAGOYA PROTOCOL ON ACCESS AND BENEFIT-SHARING, 1st ed. 2012.

10 Elizabeth Verkey, INTELLECTUAL PROPERTY: LAW AND PRACTICE, 1st ed. 2015, p. 588.

TRIPS Agreement. It provides the guidance and minimum standards of protection for IPs to be taken into account, while framing laws governing IP's, in their respective jurisdictions. The extent of protection provided by the Members, if turns out to be more than the minimum standards of TRIPS, then such provisions in their law are known as TRIPS-plus provisions. A wide-range of IPs have been extensively dealt with, by the Agreements, to name a few; Patents, Copyrights, Trademarks, Geographical Indications, and Integrated Circuits, etc.

The TRIPS Agreement does not directly deal with ABS, but some of its provisions often cast an impact upon this matter. Under Part II of the Agreement (dealing with 'Patents'), the standards of IP protection in plants, animals and 'essentially Biological Processes' have been provided. It is stated under Article 27(3)(b) that:

> "…plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof. The provisions of this subparagraph shall be reviewed four years after the date of entry into force of the WTO Agreement".

In addition to this, a provision can also be found under another international instrument dealing with the protection of IP in Plant Varieties, i.e., International Union for the Protection of New Varieties of Plants (UPOV).

International Treaty on Plant Genetic Resources for Food and Agriculture 2001

The international agricultural community was alarmed by the introduction of CBD and TRIPS Agreement into the system. It was feared that these two instruments would in effect, cause severe disruption in free sharing of resources amongst the nations, and would consequently further disrupt the possibilities of development of new varieties of plants worldwide.[11] Therefore, in order to improve access to resources, specifically PGRs, a series of negotiations took place, which spanned over seven years, and the product of these negotiations now known as 'The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) 2001' which came into force on June 29, 2004.[12]

The nations around the world were called to pool their PGRs into a common Multilateral System (MLS).[13] The signatories were then required to make these resources available to other countries that lacked such resources, thereby establishing a framework for equitable sharing of benefits among the countries. According to the International Treaty on Plant Genetic Resources for Food and

11 *Supra* n. 4.

12 "*International Treaty on Plant Genetic Resources for Food and Agriculture*", FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, https://www.fao.org/plant-treaty/overview/en/, (visited on November 26, 2021).

13 Article 10(2) of the International Treaty on Plant Genetic Resources for Food and Agriculture 2001.

Agriculture 2001, the material must be made freely available, or if a fee is paid, it must not be more than the minimal expense involved. Further requirement under the ITPGRFA is that the individual or institution seeking access to such PGRs must first sign a standard contract known as the 'Standard Material Transfer Agreement (SMTA)'.[14] SMTA's are private contracts, which basically have the purpose of limiting the use of PGRs only to the purpose of 'breeding' and 'research' and to prohibit the users from claiming IPs in the said material. However, if through the process of breeding, if a new plant variety is created by the user, then the user can claim IP over new variety. A limitation is put over this protection, in the sense that the user must deposit a fixed percentage of profits made through the sales of such new variety, created by him, in the fund created for this purpose under the Treaty.[15]

Legislative Instruments for Access and Benefit-sharing: National Scenario

In pursuance of ratification of CBD, and in fulfilment of its obligations under other related international instruments, India adopted a range of consultations with its stakeholders to come up with a suitable framework for complying with its obligations under the convention.

Biological Diversity Act 2002

India, being a mega-diverse country, perceived the need to draft a legislation on the ABS to be a major challenge. The reason for such perception was the fact that there are copious biological resources in the country, ranging from miniscule microorganisms to the wide-variety of flora and fauna. The need to limit the bounds of this diversity through any mechanism, measurement or volume was obviously a herculean task. These resources are spread all over the country, that too not very uniformly. In addition to this, the population of creators, breeders and researchers in the country was also vast. Thus, it was a complex issue, and to accommodate such diverse stakeholders and biological resources into a single legal regime. The challenge was further emboldened by the fact that many of these resources were already in use at that point, for various purposes like trade, commerce, research, etc. Therefore, the challenge was to bring about a balance in the system to protect the ongoing businesses and not cause any disruption in the legitimate use by the people. The need was to facilitate access on the one hand, and secure the benefits on the other.

Several rounds of discussions took place with many stakeholders all over India regarding the framework to be established in the country to govern ABS regime. This entire process took about eight years after holding consultations at various levels. The Parliamentary Standing Committee captured the responses and reactions of all these stakeholders to finally come up with the final draft of the Act 2002. The realisation of the fact that there is a need to regulate the use of resources of India by foreign entities and to bring in transparency and accountability in the whole process, propelled the country to come up with a specific framework to govern this area. For Indian users, it was to ensure the awareness about the need for

14 *Ibid*, Article 12(4).

15 *Id.*, Article 13(2)(d) and 18(4)(e).

acknowledging efforts of contributors to the conservation of biological diversity, along with wakefulness towards the responsible use of resources of the country. India ratified the Protocol 2010 in 2012 and prepared the 'Guidelines on Access to Biological Resources and Associated Knowledge and Benefit-sharing Regulations 2014'.

The provisions relating to benefit-sharing have been dealt, under the Act of 2002, and have also been supplemented by an express and purposive mention under another enactment, known as the Protection of Plant Varieties and Farmers' Rights Act 2001. These legislations represent the scenario operating in India, in consequence of it becoming a member of CBD and the Cartagena and Nagoya Protocols. In a nutshell, these statutes mirror the reflection of the mechanisms employed by India to fulfill its obligations under these Treaties[16].

The CBD and the Protocol 2010 mandate that the access shall be facilitated on the basis of PIC and MAT. PIC is the providers of the resources and is subject to MAT between the person seeking access and the person providing the access. The terms shall be with respect to the regulation of the whole issue of access and sharing of benefits. The Act 2002 and the subsequently introduced guidelines incorporate these two elements, i.e., PIC and MAT, with the emphasis upon 'facilitating access', while implementing these, and ensuring at the same time that the process of obtaining access is not cumbersome for the persons seeking access.

The formulation of Act 2002 makes it obligatory for foreign citizens, NRIs, body-corporate in India, etc. to obtain permission from the National Biodiversity Authority for the research and commercial utilization of the biological resources. The Indian users are also required to intimate the State Biodiversity Authority about the use or access of biological resources and traditional knowledge. Anyone seeking IPRs or willing to share the results of research with any foreign entity are obligated to inform the National Biodiversity Authority about the same.

Guidelines on Access to Biological Resources and Associated Knowledge and Benefit-sharing Regulations 2014

The National Biodiversity Authority (NBA), based on the Protocol 2010, issued the 'Guidelines on Access to Biological Resources and Associated Knowledge and Benefit-sharing Regulations 2014' (ABS Regulations) on November 21, 2014. These guidelines provide regulations to determine the manner in which the users of PGRs are to fulfil their financial obligations, along with the provisions dealing with the manner in which they shall share the benefits.[17]

Protection of Plant Varieties and Farmers' Rights Act 2001

Farmers, Breeders and Researchers often grasp the opportunity to brand themselves as the owners of unique varieties of plants. This comes up either as a result of them stumbling upon some discovery of a new variety through minimal

16 *Supra* n. 3.

17 Neeti Wilson, "*Guidelines for Access and Benefit Sharing for Utilization of Biological Resources Based on Nagoya Protocol Effective*", Vol. 20, 2015, p. 68, http://nopr.niscair.res.in/bitstream/123456789/30587/1/JIPR%2020%281%29%2067-70.pdf, (visited on November 5, 2021).

intervention in the process of plantation or breeding, or due to mere accidental creations or through intense experimentation. Whatever may be the case, the results of such intervention/accident/experimentation are the products which take birth as a result of the utilisation of that person's intellect, at whose instance they took birth. The IP in such subject-matter that has been recognised through various international instruments, but the extent of protection granted to different stakeholders therein, varies.[18] At its inception, the issue of Plant Variety Protection (PVP) was mostly seen as not a suitable one to be covered under the realm of IP protection, but gradually it assumed great importance. Today, the issue is dealt with under various international instruments, namely, the International Convention for the Protection of New Varieties of Plants Convention, TRIPS Agreement, ITPGRFA, along with several domestic laws tailor-made according to the needs of several nations of the world.

Earlier, when the issue caught the world's attention and became a topic of debate in the last round of GATT Negotiations, most of the developed nations presented an inclination towards granting protection to breeders, while some of the developing nations believed that the interests of farmers also need recognition. India was one of the pioneer nations which had a major concern of addressing the needs of its farmers. India wished to have a system of PVP where the farmers and breeders were both granted equal or at least equitable protection.[19] These concerns gradually concretised and developed into a unique system of PVP, in the form of a legislation which came to be known as 'The Protection of Plant Varieties and Farmers' Rights Act 2001' .

The Act was brought into force in India for laying the foundation for a *sui generis* protection regime for plant varieties, under the realm of IP protection. It came as a product of India's obligation to comply with the TRIPS Agreement. As discussed earlier, Article 27(3)(b) of the Agreement left the Member countries with three options to devise their national laws for the protection of plants, animals and 'essentially biological processes'.[20] The options available were to either grant patent protection for this subject-matter, or to adopt a *sui generis* regime, or to provide a combination of both.[21]

Implementation Issues

A major subject of concern while dealing with the issue of ABS often ultimately comes circling around the issue of 'implementation'. Even after the passage of so many years, it remains the fact that ABS mechanism in India has not been able to reach the level of expectations of the policy makers and stakeholders. There still seem to be several issues of concern surrounding it. After almost two

18 Jay Sanderson, PLANTS, PEOPLE AND PRACTICES: THE NATURE AND HISTORY OF THE UPOV CONVENTION, 1st ed. 2017, p. 615.

19 R.R. Hanchinal and Raj Ganesh, PROTECTION OF PLANT VARIETIES AND FARMERS' RIGHTS: LAW, PRACTICE AND PROCEDURE, 1st ed. 2018.

20 V.K. Ahuja, LAW RELATING TO INTELLECTUAL PROPERTY RIGHTS, 3rd ed. 2017, p. 615.

21 Article 27(3) of the Agreement on Trade-Related Aspects of Intellectual Property Rights 1995.

decades, it still seems that the drafters were slightly over-ambitious in enlisting the illustrative non-monetary benefit options under the ABS Regime in India. Some expected potential benefits, being: Institutional capacity building (including training); transfer of technology or sharing Research and Development results; setting up of Venture Capital Fund; providing scholarships and financial aids; sharing scientific information etc. Some exemptions were also created under the Act, from the purview of ABS, like: traditional agricultural practices; publication of research papers; access to transfer of biological resources under collaborative research projects; rights under any Law relating to Plant Variety Protection (PVP); human genetic material; value added products, etc.

Application Trend

Till date, total number of applications received by the National Biodiversity Authority add up to 4907, out of which 2142 applications were granted approval and came at formal agreements. Some of these applications were withdrawn and others were rejected. Refer to following table for the area-specific grant of approvals:

TABLE 1. AREA-SPECIFIC GRANT OF APPROVALS[22]

No. of Cases	Approval Granted for
1662	IPR
293	Research and Commercialization
27	Transfer of Research
31	Third Party Transfer
130	Transfer of Biological Resource for non-commercial research for emergency purpose outside India
TOTAL AMOUNT REALISED	**>100 CRORES**

The data clearly shows that the amount of benefit-sharing granted is way less than the amount sought. The application trend presents a picture of more applications and less Benefit-sharing granting trend.

Uncertainty as to the Remedy

Standard Material Transfer Agreement (SMTA) under the ITPGRFA- provides for the requirement that the party requesting access to a specific material shall use it only for the purpose for which it seeks access and none other. The treaty is unclear about the extent and nature of the remedy under ITPGRFA available in case a party breaches the SMTA.

Uncertainty as to the Damages

It is not clear how damages will be calculated in a scenario where a recipient proceeds for patenting the plant genetic material in the form that it has been

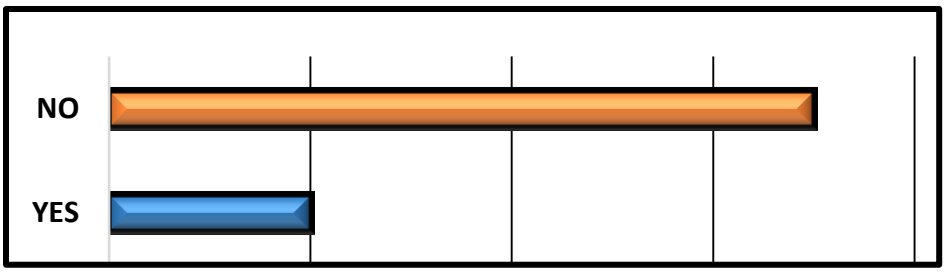
22 "*Regulation of Access to Biological Resources and / or Associated Knowledge*", NATIONAL BIODIVERSITY AUTHORITY, http://nbaindia.org/content/26/59/1/forms.html, (visited on November 26, 2021).

received from the provider. The only acceptable remedy in this case is for the national IP legislation to allow for the revocation of the IP right in question.

Lack of Awareness

A pilot-study conducted by the researchers in the States of Delhi, Punjab and Haryana, with a sample size of 10 farmers depict that only 22% of these farmers were aware of their right of Benefit-sharing under the law; while 78% were unaware of it.

FIGURE 1. STUDY ON AWARENESS OF FARMERS[23]



Inadequate Funding

The Biological Diversity Act 2002 (the Act 2002) mandates the establishment of Biodiversity Management Committees (BMCs) for the purpose of ensuring better conservation of biodiversity. Albeit, even after so many years, BMCs have not been able to work to their fullest potential due to insufficient funding and their inability to achieve proper financial stability to tackle the prevailing issues.[24]

Need for Clarity

Certain terms used in the Act like 'Entity' which can claim benefits and 'Fair' in 'fair and equitable sharing' are ambiguous. There is a need to bring more clarity with respect to such terms, in order to ensure precision and certainty in the implementation of the law in the country.

Conclusion

Conclusively, there are some major implementation issues in the prevailing law in place in India. In order to implement the ABS Mechanism more efficiently, it is the need of the hour to plug these lacunae existing in the legal system governing ABS. Some of the steps that can be taken by us to achieve an ideal legal framework for ABS are enumerated hereunder:

The first step in the direction of better implementation of this legislation in India would be to spread awareness regarding the existence of this law in the

23 Primary data collected by the researcher.

24 Mridhu Tandon and Ritwick Dutta, "*Policy Brief on Biodiversity Management Committee (BMCs)*", LEGAL INSTITUTE FOR FOREST AND ENVIRONMENT, 2017, https://www.niua.org/csc/assets/pdf/key-documents/phase-2/Up-GreenC-and-BIO/Policy-paper-on-Biodiversity-Management-Committees.pdf, (visited on November 27, 2021).

Indian legal system. As found from a pilot study conducted over three States of India, the extent of awareness amongst the stakeholders is quite low, especially among the farmers, who have the right to seek share in benefits through the framework provided under the Protection of Plant Varieties and Farmers' Rights Act 2001. Bodies like the *Krishi Vigyan Kendras* (KVKs) can help in holding some awareness programmes in the remotest of villages of India, which can further ensure the formation of chain of information to go throughout the country and thereby warrant awareness regarding the law. Use of digital media can also provide effective solutions for dissemination of information regarding Benefit-Sharing, for instance through mediums like radio, television, conducting projective workshops and drills in areas of tough reach.

Better funding framework should be put in place to make the Authorities capable enough to carry out the functions for which they have been established.

The term 'fair' is quite subjective. So, an effort to re-define this word in order to make it less ambiguous would serve a great deal in ensuring the better implementation of the law in the country.

Only a strong legal framework can ensure a better implementation of the law sought to be laid down by it. The stakeholders shall be actively involved in the decision-making process for the smooth functioning of the legal system and to ensuring that the law does not end up being rendered redundant.

***

ACCESS AND BENEFIT-SHARING: ROLE OF INTELLECTUAL PROPERTY IN ACHIEVING THE OBJECTIVES OF BIODIVERSITY LAW IN INDIA

Anandkumar R. Shindhe[♣]

Abstract

India's biodiversity is embedded in the traditional, religious and cultural life of the Indian people. Most of the villagers depend on the forest products for their survival. Sustainable use and conservation of biological resources have a direct association with the creation of access and benefit-sharing (ABS) mechanism. Sustainability particularly indigenous sustainability depends on the ability of the Intellectual Property (IP) system in extending its protection over the traditional knowledge of the indigenous peoples. The intellectual property system can ensure proper access and benefit-sharing of knowledge and products arising out of the use of biological resources with the indigenous peoples as well as with the global population. India in compliance with CBD 1992, Bonn Guideline 2001, and Nagoya Protocol 2010 (the Protocol 2010) has made some reforms in the form of Protection of Plant Varieties Rights Act 2001; Biodiversity Conservation Act 2002, Rules 2004 and Benefit-sharing Guidelines 2014. This paper deals with the role of the intellectual property system in achieving the objectives of ABS. This paper deals with the review of literature, trend analysis, and formulation of questions. A systematic review of literature method (SLRM) and bibliometrics are used for review of literature and an effort is made to answer the questions relating to the intellectual property rights.

Keywords: Access and Benefit-sharing, Bibliometrics, Biodiversity, Intellectual Property.

Introduction

India is one of the megadiverse countries which accounts for 8% of total global biodiversity. Approximately 70% of the people in India depend directly or indirectly on biodiversity for their socio-economic growth.[1] The National Biodiversity Authority (NBA) was established under the Biological Diversity Act 2002 (the Act 2002) by the Central Government in 2003. Further, under the management of NBA it supported the creation of 28 State Biodiversity Boards (SBBs) and also so 2,66,499 Biodiversity Management Committees (BMCs) at the

♣ Assistant Professor of Law, Institute of Law, Nirma University, Ahmedabad, e-mail: anandkumar.shindhe@nirmauni.ac.in .

1 "*Annual Report 2017-18*", NATIONAL BIODIVERSITY AUTHORITY, 2018, http://nbaindia.org/uploaded/Annual_report_2017-18_english.pdf, (visited on November 5, 2021).

local level.[2] The NBA is under the obligation to lay down guidelines and provide approval for access to bioresources. Along with other obligations NBA is to take any measure, on behalf of the Central Government[3], necessary to oppose the grant of IPR in any country outside India on any bioresources or associated Traditional Knowledge (TK) occurring in or obtained from India.[4]

Till 2017 the NBA has received 1853 applications in four categories (Form I-368, Form II-56, Form III-1353, and Form IV-76), Form III deals with the applications seeking approval for obtaining IP rights over the biodiversity-based research.[5]

From October 1, 2015, India has issued approximately 2155 internationally recognized certificates of compliance (IRCC) and is in a leading position addressing the ABS arrangements it has made providing both national and international researcher access to India's biodiversity.[6] Traditional medicine is an integral part of India's culture.[7]

The Table 1 shows the State-wise fund allocation for conservation of biodiversity in respective States. There is a need to have consistency in fund allocation by each State.

TABLE 1. STATE-WISE FUND ALLOCATION[8]

(Rs. in Lakh)			
States	**2017-2018**	**2018-2019**	**2019-2020***
Andhra Pradesh	0.00	24.19	0.00
Arunachal Pradesh	64.49	0.00	0.00
Assam	71.34	0.00	80.95
Chhattisgarh	98.29	50.56	0.00
Gujarat	64.86	0.00	0.00
Himachal Pradesh	0.00	38.32	0.00
Kerala	236.15	134.08	0.00
Madhya Pradesh	250.00	0.00	0.00

2 *Ibid.*

3 Section 21 of the Biological Diversity Act 2002.

4 *Ibid.*

5 B Meenakumari and Rai S Rana, "*Regulation of Access to Biological Resources and Benefit Sharing in India: An Analytical Study*", http://www.nbaindia.org/, (visited on November 5, 2021).

6 "*National Report on the Implementation of the Nagoya Protocol*", ACCESS AND BENEFIT-SHARING CLEARING-HOUSE, https://absch.cbd.int/reports, (visited on November 5, 2021).

7 Z.M. Nomani, "*The Access and Benefit-sharing Regime: An Environmental Justice Perspective*", ENVIRONMENTAL POLICY AND LAW, Vol. 49, No. 4/5, 2019, pp. 259-263.

8 Selected State-Wise Funds Allocated Under Centrally Sponsored Scheme 'Biodiversity Conservation' In India 2017-2018 to 2019-2020-upto 24.11.2019 http://www.indiastat.com.elibrary.nirmauni.ac.in/table/environment-and-forest/selected-state-wise-funds-allocated-under-centrall/1289384, (visited on November 5, 2021).

Maharashtra	205.63	0.00	0.00
Meghalaya	0.00	136.32	0.00
Odisha	130.05	134.65	0.00
Sikkim	0.00	205.83	0.00
Tamil Nadu	493.99	168.83	128.32
Uttarakhand	474.51	199.90	0.00
West Bengal	129.54	96.76	0.00
India	**2218.85**	**1189.43**	**209.27**

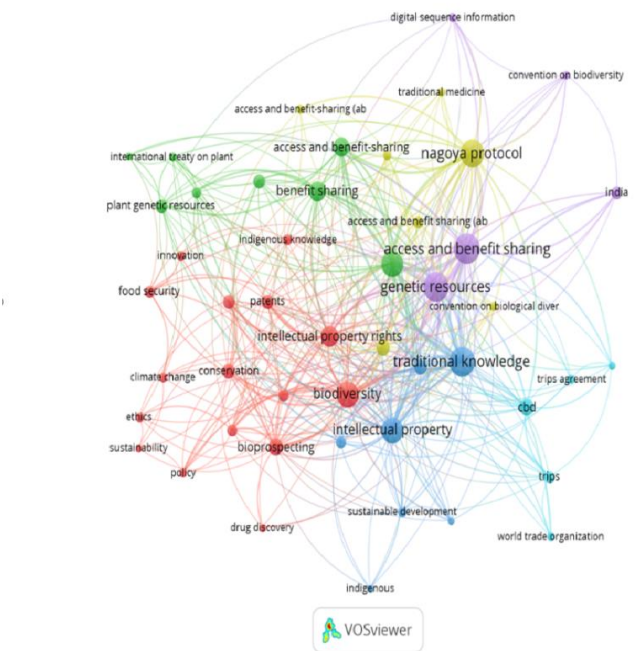
Research Method

To bring out the relationship between the concept of 'ABS' and 'Intellectual Property, a 'bibliometric analysis method' is used. "Access and Benefit-sharing" and "Intellectual Property" are the two keywords used to search the Scopus database. The Scopus database produced a result of 813 documents. Entire data is then downloaded as a .csv file and then a visual map depicting the relationship between key areas is developed by using VOSviewer software. Further, a review of literature of highly cited articles is done to trace out the trend and formulate the research questions.

Bibliometric Analysis

As part of the bibliometric analysis, the following co-occurrence map is developed which is showing the relationship between ABS and intellectual property. This map is generated based on the academic research (813 documents) published and listed in the Scopus database as of 4th November 2021.

FIGURE 1. CO-OCCURRENCE MAP



Cluster Analysis

VOSviewer produced a co-occurrence map containing 6 clusters which comprise 48 key areas related to ABS and intellectual property. The distance between two key areas represents the significance of that area with the other area. For example, the key area biodiversity and intellectual property both represented in red colour and blue colour respectively in the map are near to each other, meaning that to achieve the objectives of ABS there is very close interdependence on each other. There are a total of 6 clusters in the map representing 6 different concerns.

Cluster 1 represented in red colour contains 16 key areas associated with ABS and Intellectual Property. The main areas under this cluster are conservation, biotechnology, food security, climate change, indigenous knowledge, drug discovery, sustainability, etc. Cluster 1 defines the nature and scope of the ABS concept. It indicates that there is a need to regulate all these areas to achieve the objectives of ABS.

Further Cluster 2 which is represented in green colour deals with the areas of application of biotechnology where policy inputs are required. This cluster has a total of 8 key areas such as benefit-sharing, CBD, an international treaty on plant, plant genetic resources, marine genetic resources, etc.

Similarly, Cluster 3 represented in blue colour contains 7 key areas representing the areas that need to be protected. They are human rights, indigenous peoples, natural resources, traditional knowledge, etc. Thus, it can be said that ABS has direct relations with the rights of people associated with these key areas.

Clusters 4 and 5 are represented in yellow and purple colour respectively represent 13 key areas such as bio-piracy, CBD, the Protocol 2010, traditional medicine, ABS, genetic resources, etc., depicts the areas of compliance by member countries. *Lastly*, Cluster 6 represented in turquoise colour contains 5 key areas i.e. CBD, PIC, TRIPS, WTO, etc. deals with the areas of international standards and source of obligation.

Further, the bibliometrics overlay visualization identifies areas such as the Protocol 2010, sustainability, ethics, ABS as the areas of contemporary research.

Review of Literature

A.C Hamilton suggests that there are ways by which we can conserve and make sustainable use of medicinal plants. These measures can be taken directly at the place where the plants are found and indirectly by regulating commercial systems.[9] He focusses the hardships in achieving the objectives of CBD, there is a need of having stringent controls on the scientific research involving medicinal plants.[10]

A team of scientists conducted a biodiversity experiment to examine the relationship between species diversity and the ecosystem. The conclusions derived from the experiment suggest that reduction in species diversity results in a

9 A.C. Hamilton, "*Medicinal Plants, Conservation and Livelihoods*", BIODIVERSITY AND CONSERVATION, Vol. 13, No. 8, 2004, pp. 1477-1517.

10 *Ibid.*

reduction of ecosystem functioning and further suggests that reduction in species diversity in the ecosystem indirectly affects the functioning of other ecosystems.[11]

The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) and its flexibilities play an important role in the implementation of objectives of CBD and sustainable development. The author, in this article, gives an example of *Organisation Africaine de la Propriété Intellectuelle* (OAPI), an African Intellectual Property Organization. African countries where the IP issues were frequently delegated to small national IP offices within government with less engagement, with other stakeholders of the governance, which creating a vacuum at the national level between the policymakers and the TRIPS implementation strategies.[12] What is expected from these OAPI countries looking at their economic and social circumstances is that the IP laws should keep the cost of buying and licensing imported technologies low. The development of the *sui generis* system for the protection of plant variety would prevent the privatization of local biodiversity.[13]

A.C Hamilton further suggests that to protect biodiversity, the issues of bio-piracy should be taken seriously as both these are interrelated problems. The laws regulating the interaction between science and the IPR should be simple. Given the IP issues example of Neem Tree, the author suggests that bio-piracy is positioned as a touchstone to examine the issues of biodiversity and has the potentiality to bring out the ultimate solutions.[14]

The IP system should give recognition to indigenous knowledge and rights to the people responsible for it. The share in the profit generated through the use of indigenous knowledge should reach the owner of the knowledge.[15]

Research Questions

Based on the bibliometrics analysis and the review of literature the following research questions are formulated.

- What is the level of protection given to bio-piracy in India?
- Are there regulations to regulate the cost of IP licensing and Assignment?
- What kind of protection is given to the indigenous knowledge and what system of benefit-sharing is existing?

---

11 Bernhard Schmid et. al. "*Consequences of Species Loss for Ecosystem Functioning: Meta-Analyses of Data from Biodiversity* Experiments", BIODIVERSITY, ECOSYSTEM FUNCTIONING, 2009, pp. 14-29.

12 C. Deere Birkbeck, THE IMPLEMENTATION GAME: THE TRIPS AGREEMENT AND THE GLOBAL POLITICS OF INTELLECTUAL PROPERTY REFORM IN DEVELOPING COUNTRIES, 1st ed. 2009.

13 *Ibid.*

14 Chris Hamilton, "*Biodiversity, Biopiracy and Benefits: What Allegations of Biopiracy Tell Us About Intellectual Property*", DEVELOPING WORLD BIOETHICS, Vol. 6, No. 3, 2007, pp. 158-173.

15 Dora Marinova and Margaret Raven, "*Indigenous Knowledge and Intellectual Property: A Sustainability Agenda*", JOURNAL OF ECONOMIC SURVEYS, Vol. 20, No. 4, 2006, pp. 587-605.

- How far has the NBA is successful in achieving its objectives?

Access and Benefit-sharing and Intellectual Property System

The importance and need for preservation of biodiversity is reflected in the vision statement of the National Intellectual Property Rights Policy *2016*. It specifically mentions that there is a need to promote advancement in the traditional knowledge and the biodiversity resources in India. The policy categorically mentions the objectives to be achieved with respect to the biodiversity. Objective no. 2.8, 3.8.3, 4.16.8, 4.20, etc. of the IP policy mention about the need for cooperation between the IP system and the NBA.[16] Apart from specific IP legislations, statutes i.e., 'The Schedule Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006' under section 3(K) as part of Forest Rights considers the *"right of access to biodiversity and community right to intellectual property and traditional knowledge related to biodiversity and cultural diversity."*

Supreme Court in the *Orissa Mining Corporation Ltd. v. Ministry of Environment and Forest*[17] observed that, "Whenever any Act protects a wide range of rights of forest dwellers and STs including customary rights to use forest land as a community forest resource and not restricted merely to property rights or to areas of habitation, then that should be taken into a consideration." In this case Ministry of Environment and Forest had constituted a four-member committee headed by Dr. Naresh Saxena to study and assess the impact of mining activities of Vedanta Aluminium Company on various rights of Forest Dwellers and submit the report. The committee submitted its detailed report highlighting the various instances of violations which are repeating in nature and also reported wilful concealment of information by the company.

Further, under the Biological Diversity Act, 2002 under section 6 make it mandatory for any person who is interested to obtain IP rights to seek the prior approval from the NBA and NBA before granting such approval would determine and impose the benefit-sharing fee or royalty or both on the benefit arising out of the commercial utilisation of such rights. The Uttarakhand High Court in *Divya Pharmacy v. Union of India*,[18] held that the State Biodiversity Board has powers to impose and demand fair and equitable benefit-sharing from the applicants.

Similarly, 'The Patent Act 1970' under section 3(p) specifically states that inventions which in effect is traditional knowledge is not patentable. Again under section 25 as part of pre-grant opposition and under section 64 as a ground for revocation of patent, if non-mention of origin and source of biological material then no patent will be granted.

The government of India has created a Traditional Knowledge Digital Library (TKDL) an initiative to protect Indian traditional medicinal knowledge and prevent its misappropriation.[19] Along with securing the traditional medicinal knowledge, TKDL is also making pre-grant oppositions at various International Patent Office for the patent applications involving subject matter which is already

16 "*National IPR Policy*", DEPARTMENT FOR PROMOTION OF INDUSTRY AND INTERNAL TRADE, https://dpiit.gov.in/policies-rules-and-acts/policies/national-ipr-policy, (visited on November 5, 2021).

registered in repository of TKDL. Till date 230 patent applications have successfully opposed based on the prior art evidences present in the TKDL database.[20]

Conclusion

After doing the bibliometrics analysis and review available literature, it can be observed that all the research question formulated resulted in affirmative. No doubt the Government of India has taken several steps, particularly the commendable achievement of NBA, but India still needs to further strength the legal regulations to protect and preserve the biodiversity and to provide access and benefit to the indigenous people. Till date India lacks specific legislation for Traditional Knowledge. It is further suggested that, the provisions of compulsory licensing should be used against such patent holder who after obtaining patent are not utilizing it for the benefit of the people.

***

17 *Orissa Mining Corporation Ltd. v. Ministry of Environment and Forest* (2013) 6 SCC 476.

18 *Divya Pharmacy v. Union of India* 2019 (2) UC 1226.

19 "*About TKDL*", TKDL, http://www.tkdl.res.in/tkdl/langdefault/common/Abouttkdl.asp?GL=Eng, (visited on November 6, 2021).

20 *Ibid.*

ABS LITIGATION IN INDIA: ANALYSING THE ROLE OF JUDICIARY IN ASSURING DISTRIBUTIVE BIOJUSTICE AND SUSTAINABLE DEVELOPMENT

Shilpa Jain[♣] *and Abhinav Kumar*[♠]

Abstract

The institution of judiciary is one of the important emblems of the rule of law. One of its major tasks is to ensure a fair, transparent and amicable resolution of conflicts of interests associated with the resources that we inherit from the nature. In relation to the conservation of biodiversity, the mechanism for Access and Benefit-sharing is notably one of the growing areas of emerging biodiversity jurisprudence. In Indian context, the Biological Diversity Act 2002 (the Act 2002) envisions the Access and Benefit-sharing mechanism (ABS mechanism) through a set of regulatory compliances and parameters to regulate activities such as commercial utilisation and its research, bio-survey and bio-utilisation of biological resources which either occur or is obtained from India. Therefore, the present study analyses the role of judiciary in distributive justice in the light of the Act 2002. This article analyses the judicial space created to make, interpret, and enforce laws that promote the collective goal of conservation and the sustainable use of biodiversity. The proactive and creative judiciary, acting as amicus environment, has produced a major shift in the environmental landscape of India.

Keywords: Access and Benefit-sharing, Biodiversity, Distributive Justice, Judiciary, Litigation.

Introduction

The rich efforts of the International community with an assortment of various governments and representatives for the sustainable biological diversity can be seen in the United Nations (UN) Conference on Human Environment, popularly referred to and known as the Stockholm Conference of 1972.[1] It was the first conference under the aegis United Nations focussing on environmental issues. The aim, objective and intention of the Stockholm Conference stated that the earth's resources are not infinite and the world community needs to intervene as there is an urgent need to protect and safeguard these resources for the survival and sustenance of the present and future generations.

♣ Associate Professor of Law, Maharashtra National Law University, Nagpur, e-mail: shilpajain@nlunagpur.ac.in .

♠ Assistant Professor of Law, Nirma University, Ahmedabad, e-mail: abhinav.kumar@nirmauni.ac.in .

1 "*United Nations Conference on Human Environment (Stockholm Conference)*", SUSTAINABLE DEVELOPMENT GOALS, https://sustainabledevelopment.un.org/milestones/humanenvironment, (visited on December 18, 2021).

It was twenty years after the Stockholm Conference, the UN Conference on Environment Development (UNCED) known as the Earth Summit was held in Rio de Janeiro, Brazil from June 3-14, 1992, carrying the worldwide mandate and a necessary weighing balance to engage in the economic development with the protection of the environment. It laid down 27 principles which synthesised and talked about sustainable development and protection of environment. As India is a member of the Convention on Biological Diversity (CBD), it led to the enactment the Act 2002, whose objective is essentially the conservation of India's biological diversity, ensuring sustainable use of its biological resources and also ensuring the equitable sharing of benefits arising out of use of its biological resources.[2] These objectives follow a well closed pattern and are reflective with the objectives of the CBD.[3] Although the Act came into existence in 2002, the subsequent Rules notified in 2004 gave it a stronghold and a tooth for legislative impact.

The Act works as setting up of three-tier system for biodiversity management in furtherance to its objectives: *first*, the National Biodiversity Authority (NBA) which is essentially the apex body, *secondly*, the State Biodiversity Boards (SBB) in each of the 29 Indian states, and *lastly*, the local-level biodiversity management committees (BMC) attached with their respective local self-governments i.e. municipalities and panchayats. As per the current scenario, all 29 states have established SBB and all of them have notified their State Rules.[4]

The laws on ABS came into existence only after realising the need of building a framework for dealing with the issue of increasing conflicts between various nations of world over the sharing of their natural resources. By the mid of 20th Century the Principle of Permanent Sovereignty with respect to the Liability Principle was acknowledged worldwide.[5] The basic jurisprudence behind this principle was to ensure rights to every independent nation to utilise the natural resources within their territory. As such equal respect to each other's existence was encouraged. In the field of Biological Diversity, this principle comes into play basically because, every nation shall enjoy their rights over their Biological Resources and thereby is also entitled to an equitable share of benefits from the utilization of such resources from their country by any foreign country. Thus, this Principle became one factor behind the emergence of ABS laws in the global level.

Further, in addition to this, the world community has felt the need of conserving these natural resources, since these resources are now at an alarming stage of

---

2 Biological Diversity Act 2002.

3 Article 1 of the Convention on Biological Diversity 1992, states that: *the conservation of biodiversity, the sustainable use of the components it provides, the fair and equitable utilization sharing out of the benefits arising out of their utilization on resources inclusive of appropriate access of these resources and transfer of these technologies with the help of taking into account all such rights over it and by an appropriate way of funding*.

4 "*NBA Annual Report 2016-17*", NATIONAL BIODIVERSITY AUTHORITY, http://nbaindia.org/uploaded/pdf/Annual_Report_2016-17_Eng.pdf, (visited on December 18, 2021).

5 Marc Bungenberg and Stephen Hobe, PERMANENT SOVEREIGNTY OVER NATURAL RESOURCES, 1st ed. 2015, pp. 1-13.

extinction, due to their over exploitation in the name of development by the human community since time immemorial.[6] At the same time, commercialisation of these resources are also needed, as they form the very essentials for human existence. All these resources possess an economic value but for the sake of utilising such values, compromising with their conservation cannot be appreciated.

It was, therefore, needed to introduce a mechanism whereby inconsistency between both commercialization and conservation of these resources could be achieved, for which a regulatory framework was needed to govern such aspects. And this need gave birth to the ABS mechanism. The ABS provide the commercial pursuits for balancing the interests of both users and providers of the Genetic Resources (GR) which ultimately contributes to the conservation of these resources.

In addition to the above two factors, the ABS laws are also applicable for making efficient use of these resources. In other words, for sustainable use of these resources, in order to protect them from over exploitation.[7] Sustainable use of these resources will ensure the rights over these resources for both the present as well as the future generations.

Besides protecting the rights of the countries over their biological resources, this ABS system was also introduced with an attempt for protecting the rights of the indigenous/local communities. Although the definition of the term indigenous is hard to find in any particular international instruments[8], yet it means the rights of the natives or the local communities, who are in actual possession of the biological resources as far as their conservation and the knowledge relating to the use of such biological resources is concerned. This system ensures a fair and equitable share of benefits arising out of the utilization of those resources which are actually in possession of these local communities. Therefore, this system provides for a legal recognition of the rights of the local communities over their biological resources.

International instruments cast upon the Member States the responsibility to implement the provisions of such instruments by giving them recognition in their domestic laws. India, being a signatory to the CBD has also taken up the responsibility of giving recognition to its provision through its national legislations and policies, and for this reason India enacted the said Act. However, it came into existence ten years after CBD; still it at least marked the beginning of India's concern towards protection of her Biodiversity Resources. Later, Rules and Guidelines were made to further enhance the Regulation of the Biodiversity Conservation and Access Mechanism.

---

6 "*What are the Consequences of the Overexploitation of Natural Resources?*", IBERDROLA, https://www.iberdrola.com/sustainability/overexploitation-of-natural-resources, (visited on December 13, 2021).

7 "*Access and Benefit-sharing: An Innovative Tool for The Conservation and Sustainable Use of Biodiversity*", HEALTH FOOD CHAIN SAFETY AND ENVIRONMENT, https://www.health.belgium.be/en/animals-and-plants/biodiversity/genetic-research-resources/access-and-benefitsharing-innovative-tool, (visited on December 24, 2021).

8 Rashwet Shrinkhal, "*Problem in Defining 'Indigenous Peoples' Under International Law*", CLJ, Vol. 7 No. 7, 2014, pp. 187-195.

Distributive BioJustice *vis-à-vis* the Biodiversity Lens

It becomes necessarily sacrosanct to throw light and equate the two concepts of distribute environmental justice and biodiversity in the context of Access and Benefit-sharing mechanism. Before the paper discusses the range of litigations in the court of law, it is important to discuss the concept and jurisprudence of distributive justice in the light of the biodiversity framework.

Johansson-Stenman and Konow in their popular definition of distributive justice have rightly remarked, Distributive justice, which we use here interchangeably with fairness, concerns moral preferences over the distribution of social and economic benefits and burdens among a group of individuals[9]

Distributional justice (rightly known as equity theory in various other disciplines of psychology, sociology and political science) have provided a criterion for normative judgments. Walker describes the situation in the United Kingdom where attention is rarely given to the social distribution of environmental outcomes in impact assessment processes. Thus, Walker calls for analyses of 'who is to be benefitted?' and 'who is to be burdened?' as a result of projects, plan and programme decisions regarding the environment.

The following are some noteworthy principles that in given situations may be of good use and can be considered to guide such judicial decisions:

- *First*, the much-required principle of equal distribution of goods and/or burdens amongst relevant set of parties and persons.
- *Secondly*, the contribution-based distribution is a principle to distribute goods and/or burdens according to positive and/or negative contributions to the situation. One of the examples could be the payment of salary to workers based on their productivity and delivery of services. Another notable example in the environmental jurisprudence is the principle of having polluters pay the costs of polluting the environment.
- *Lastly*, the need-based distribution is a principle based on a normative view and works on the human rights jurisprudence of having the right to fulfil all such basic needs as required. This principle may be connected to the concept of sustainable development.

The discourse on environmental justice often distinguish the two sub-themes of procedural environmental justice and substantive (or distributive) one. The former is usually understood to require the opportunity for all people regardless of race, ethnicity, income, national origin or educational level to have meaningful involvement in environmental decision-making. However, the main value of procedural environmental justice is often assumed to lie in the contribution it can make to substantive environmental justice. Substantive (or distributive) environmental justice is usually understood to require that environmental benefits

9 Hanne Svarstad et.al. "*Three Types of Environmental Justice: From Concepts to Empirical Studies of Social Impacts of Policy Instruments for Conservation of Biodiversity*", REPORT POLICYMIX, https://www.nina.no/archive/nina/PppBasePdf/Policymix%20Report/Svarstad%20Three%20POLICYMIX%20Report%201%202011.pdf, (visited on December 25, 2021).

and burdens are distributed fairly. If everyone has the opportunity to participate in environmental decision-making (procedural environmental justice), each person has the opportunity to defend her own and everyone else's substantive environmental rights. Therefore, it is likely to be more difficult to impose unfair environmental burdens (substantive environmental injustice) on people through a just procedure than it is through an unjust procedure.

There are many different versions and parameters of distributive environmental justice. These different versions reflect different answers to three key questions *viz.* Who are the essential recipients of environmental justice? What is basically distributed in the entire process? What is the principle of distribution on which it rests? More recently, and as a contemporary development, the idea of environmental justice has been extended beyond burdens to make it inclusive of the benefits. The fundamental thing to be realised is that the benefit has always been a part of the environmental justice debate. For example, in the menace of air pollution, it is only a burden because clean air is an asset and a benefit to the people at large. However, the new focus on benefits has attained a new dimension. The emphasis is not just restricted to basic goods and services (*viz.* clean air, clean water, forests, uncontaminated land) that are volatile to environmental hazards but rather rests on a more general idea of "environmental quality" and "being able to experience quality environments" (such as green spaces, countryside, etc.).[10]

The Indian judiciary must take into consideration while passing such order, decrees and judgments where distributive justice is upheld and maintained. The socio-legal fabric of our constitution demands an equitable distribution of resources and access to the same. It is the duty and authority of the court to push the envelope in the right direction and to promote and implement the ABS mechanism to the fullest in India.

Access and Benefit-sharing and Biodiversity: The Role of Judiciary

The rule of law in India has been all about the independence of the judiciary and how actively the role of courts can be extended for a better and healthier interpretation and implementation of the legal provisions. Through the rich block of history, whenever the legislature and the executive have suffered in ensuring a proper manufacturing and implementation of the legal framework, the judiciary has always stood out as a final deciding authority to interpret the complicated set of legal doctrines and provisions through the judicial procedure enshrined in the legal system.

The legal framework of biodiversity and ABS mechanism in India, much like the others, are not without its share of flaws. There have been many difficulties in implementing the ABS provisions of the Act. There has also been a tug-of-war between NBA and some SBB on the issue of Access and Benefit-sharing. The states with maximum number of cases on the issue of ABS are Madhya Pradesh (MP) and Uttarakhand (UK). The use of public interest litigation (PIL) in both

10 "*What is Environmental Justice*", GLOBAL JUSTICE AND THE ENVIRONMENT, https://www.staff.ncl.ac.uk/g.m.long/environmental_justice.html, (visited on December 27, 2021).

environmental and biodiversity matters is welcomed by the Supreme Court and High Courts, and by the National Green Tribunal (NGT).

This article, in reviewing the decisions of the constitutional courts and NGT, identifies and explores the application of international environmental law principles, engagement with the regulatory institutions responsible for biodiversity governance, and interpreting rights and obligations under the Act 2002 and other analogous legislation. The judicial approach in developing *sui generis* biodiversity discourse, entertaining petitions, providing appropriate remedies, issuing guidelines and directions particularly where there is gap or ambiguity in the legislation has been witnessed. India ratified the Nagoya Protocol[11] (the Protocol 2010) in 2012 and committed to its implementation. The NBA regulates Access and Benefit-sharing with the help of SBBs and local BMCs.[12]

In 2013, Madhya Pradesh State Biodiversity Board (MPSBB) issued an order requiring companies using State bio-resources for commercial use to share benefits arising out of such commercial use. The money should be deposited in the Biodiversity fund and to be used for biodiversity conservation in the State. Some companies were served notice of their noncompliance. Several companies challenged these notices before the NGT.[13] Domestic industries argued they were not subject to the control of ABS. Section 7 of the Act 2002 states that the Indian industry is required to give prior intimation to the concerned SBB about obtaining the biological resources for commercial utilisation. Many other States, including Karnataka and Andhra Pradesh, followed the MPSBB position and started levying a charge for accessing bio-resources. The NGT bench asked the NBA and the Government of India to examine whether the SBB can issue notices where there are no guidelines.[14]

These developments and litigation were instrumental in the NBA preparing national level Guidelines on Access to Biological Resources and Associated Knowledge and Benefits Sharing Regulations (ABS Guidelines).[15] The NGT directed both the Ministry of Environment, Forest and Climate Change and NBA to come up with a standardised guidelines for ABS and put them for enactment. It followed a various sets of internal discourses, agreements and disagreements between the Environment Ministry, NBA and the SBBs, resulting in the *Guidelines on Access to Biological Resources and Associated Knowledge and Benefit-sharing Regulations, 2014* (the ABS Guidelines) were issued on November 21, 2014. The

11 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation to the Convention on Biological Diversity 2010.

12 *Supra* n. 2, Sections 22-26, 41.

13 *Agro Solvent Products Pvt. Ltd. v. MP State Biodiversity Board* Appeal No. 06/2013; *Ruchi Soya Industries v. MP State Bio Diversity* Appeal No. 07/2013; *Dabur India Ltd. v. M.P. State Bio-Diversity Board* Appeal No. 01/2014.

14 *Ibid*, NGT issued the order on August 1, 2014.

15 "*Guidelines on Access to Biological Resources and Associated Knowledge and Benefit Sharing Regulation 2014*", NATIONAL BIODIVERSITY AUTHORITY, http://extwprlegs1.fao.org/docs/pdf/ind188691.pdf, (visited on January 10, 2021).

Member Secretary (the then) MPSBB was on the committee to set up guidelines for ABS.

In December 2014, the NGT directed the MPSBB to issue fresh notices to around 500 companies following NBA's notification of the ABS Guidelines, 2014. Following the acceptance of these guidelines, all cases were reportedly disposed of in February 2015. In July 2015, following the NGT directive to the MPSBB to comply with the ABS notification as per the Act 2002, the MPSBB formed a committee to look into the matter and expedite the process of recovery of ABS from the AYUSH manufacturers.[16]

Divya Pharmacy Case

The petitioner sought relief against the order passed by the Uttarakhand Biodiversity Board (UBB) under the 'Fair and Equitable Benefit-sharing' (FEBS) provisions as provided in the Act 2002.[17] FEBS is one of the three important elements of biodiversity conservation. It gives benefits to the indigenous and local communities, who either grow biological resources, or have traditional knowledge of these resources. The question before the Uttarakhand High Court was whether there is a difference in the statutory obligation between foreign entities and Indian persons under FEBS.[18]

Divya Pharmacy argued that it was not a foreign but an Indian entity and therefore did not attract FEBS provisions. The High Court rejected the argument by stating that under FEBS there is no distinction between a 'foreign entity' and a 'domestic entity'. It held FEBS involves purposive reading based on the broad parameters of the Act 2002, the historical rights and the benefits of the local and indigenous communities, and India's international treaty commitments.[19] According to the High Court, the rights of 'indigenous and local communities' were important and emphatically declared in the Protocol 2010, which are to be protected. The focus of the Protocol 2010 is on FEBS, and protection of indigenous and local communities, and the effort is that the indigenous and local communities must receive their fair and equitable share for parting with their traditional knowledge and resources.

16 Shalini Bhutani and Kanchi Kohli, "Litigating India's Biological Diversity Act: A Study of Legal Cases", 2016, https://counterview1.files.wordpress.com/2016/12/bd-litigating-report-final-5-12-2016.pdf, (visited on December 30, 2021).

17 *Divya Pharmacy v. Union of India* 2018 SCC OnLine Utt 1035.

18 *Ibid.*

19 The High Court analysed the Stockholm Declaration 1972, CBD 1992, and the Nagoya Protocol 2010. According to the court, the Stockholm manifesto recognised that earth's resources are finite and there is a strict need to safeguard these available resources. The convention recognises traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources, and the desire and ambition of sharing equitably benefits arising from the use of such traditional knowledge, innovations and practices which are relevant to the conservation of biological diversity and how the sustainable use of its components can be done in an amicable manner.

India, being a signatory, to the Rio and the Protocol 2010, is bound to fulfil its international commitments and make implementation of FEBS effective and strong.[20]

The Hon'ble High Court of Uttarakhand stated the ambiguities in the national legislations which necessarily needs to be read in light of the international treaties like CBD and the Protocol 2010 so that a step may be taken in the right direction to analyse and determine the true essence and standing of FEBS. The court held that since the inception of the Protocol 2010, it does not make any demarcation between foreign entity and an Indian entity in respect of their obligation towards local and indigenous communities and hence conclusively, the national legislation also cannot make such point of distinction.

The High Court concluded that the SBB has got all the necessary powers to demand a Fair and Equitable Benefit-sharing (FEBS) from the petitioner in question here, in view of its statutory requirement and function enlisted under Section 7 which needs to be read with Section 23 of the Act. The court also pointed out that NBA has got powers to draft and frame the necessary regulations (in the present case: the ABS Guidelines of 2014).

The judgment is hailed as a welcome step in the biodiversity adjudication. Many Indian companies extract biological resources as raw material for commercial purposes. Now they are required to seek prior approval and share their revenue with those local communities responsible for conserving and protecting the resources. The judgment recognises community property rights as 'biological resources are definitely the property of a nation where they are geographically located, but these are also the property, in a manner of speaking, of the indigenous and local communities who have conserved it through centuries.'

However, sceptics argue that the inter-related design and implementation issues should be resolved before the benefits can be realised by the local community. This again raises the issue of legal fragmentation: the incongruence of the Act 2002, the ABS Guidelines, and the powers of regulatory authorities including NBA and SBBs.

India needs a clearer ABS policy and detailed ABS Guidelines for improved operational mechanism and effective implementation. The new draft ABS Guidelines (2019)[21] offers possible solution to this problem.

On a positive note, considering India's rich biodiversity and biological resources, the courts have ensured that the regulatory authorities evolve guidelines and create opportunities to benefit local and indigenous communities under ABS provisions.

---

20 *Ibid.*

21 "*Guidelines on Access to Biological Resources and Associated Knowledge and Equitable Sharing of Benefits Regulations*", MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, November 21, 2014, http://asbb.gov.in/access/draft-guidline-abs.pdf, (visited on November 22, 2021).

Central India AYUSH Drugs Manufacturers Association Case

In 2015, the Central India AYUSH Drug Manufacturers Association (CIDMA) filed a petition seeking explanation on notices issued for the recovery of ABS under the Act 2002.[22] The petition challenged the *vires* of the state rules and ABS Guidelines, which provides benefit-sharing upon access by Indian entities.

The court sent four notices to the authorities namely NBA, Maharashtra SBB, MoEFCC and the state forest ministry and directed them not to take coercive action against the manufacturers.[23] The court held that the High Court and not the NGT had jurisdiction over the matter. The Division Bench while hearing the present matter, considered the provisions of the various national legislations *viz*., the National Green Tribunal Act, 2010, the Act 2002 and the provisions of the enactments enlisted under Schedule-I of the NGT Act, 2010 by forming the interpretation that under Section 14 of the NGT Act, the NGT has been conferred with only a set of limited jurisdictions only to deal with a specific and concrete dispute of civil nature.

To sum it up, the court laid held that the NGT does not have the power to adjudicate upon any of the dispute stemming out of a question/challenge as to reviewing the vires of any provision of any subordinate legislation which is mentioned under Schedule I of the NGT Act or any associated regulations made within its scope. It was observed that the scheme of NGT Act does not allows the tribunal to test and decide upon the vires of any enactment that lays upon them the appellate or other jurisdiction upon it, and as a result it went ahead and dismissed the preliminary objection filed in the case.

Castor Oil Case

The NGT Western Zone (WZ) Bench passed an order for ABS payments by companies engaged in commercial utilisation of castor plant and other bio-resources for drugs and cosmetics.[24] Castor oil is extracted from castor plant, which is an agricultural produce. Justice VR Kingaonkar, judicial member and Ajay Deshpande, expert member of the NGT WZ Bench at Pune delivered a brief order making it clear that if a bio-resource like castor oil is commercially utilised, the Maharashtra SBB has the mandate to collect ABS payment under the provisions of Act 2002. The petitioners claimed that castor oil is a value added product, so not a bio-resource and it is a final product as it comes into market in that form and not in raw form.

The cases do not seem to have settled the matter on ABS and if and how it is applicable to Indian entities; this results in a situation where some bio-based businesses are even consider moving their R&D out of India. It is to be seen how this decision comes to bear on the outcome of the CIDMA petition. Not all those doing commercial utilisation of bioresources resort to litigation. Some companies may also approach the NBA directly seeking resolution on the issue of ABS. For

22 AIR 2016 Bom. 261.

23 *Ibid.*

24 *Asim Sarode v. State of Maharashtra* Application No. 25/2015(WZ).

example, at its 38th meeting the NBA had to consider the plea of M/s Hindustan Unilever Limited for reduction of benefit-sharing.

The National Green Tribunal ordered that the companies involving and using the castor plants for any commercial purposes will have to bear in mind and share the monetary benefits with local communities under the regulations of the Act 2002.

Paper Industry Cases

In 2016, a series of cases emerged in Uttarakhand on the ABS issue.[25] All the cases came from the paper and pulp industry in the state, particularly from those units that were manufacturing different types of paper. They were filed in reaction to being asked by the SBB to pay benefit-sharing for the use of bioresources. The SBB had from 2015 onwards issued notices to them under Section 7 read with Section 24(1) of the Act 2002, which require Indians to give prior intimation to SBBs for obtaining bio-resources for certain purposes including commercial utilisation. The score of cases clubbed together raise certain interesting common points of contention that arise when operationalising ABS in the country under the provisions of the Act 2002.

One of the bones of contention before the court of law was that of preliminary objections raised by a learned Senior Counsel for the Uttarakhand SBB raised to the maintainability of the writ petitions. He put forward the argument that given Section 52A of the Act, the NGT and not the High Court had power to decide this matter. Countering this view, the petitioners' lawyers emphasised the point that the matter is not cognisable by the NGT, in as much as the order has not been passed by the SBB under Section 24(2) of the Act 2002. The Court agreed with the petitioners on this and clarified that the writ petitions are the only remedy available to the petitioners against the impugned notices of the UK SBB. The other matters which has knocked the doors of our judiciary have been respect to jurisdiction of the SBB concerned and the commercial utilization[26] and its definition.

Kani Case Study of Arogyapaccha from Kerala

This case study became a landmark case as regards to the rights of tribal communities over their Biological Resources are concerned. Kani is a tribe living in the forests of Agastya Koodam in Kerala.[27] This case came to light much before the introduction of the ABS mechanism in the India. It was in 1987, when a Research team from All India Coordinated Research Project on Ethnobiology

25 *Sagar Pulp and Paper Mills Limited v. State of Uttarakhand* WPMS 1604/2016.

26 *Supra* n. 2, Section 2(f) states that: *Commercial utilisation' means to cover that the end user of biological resources for commercial utilization such as drugs, industrial enzymes, fragrance, food flavours, cosmetics, emulsifiers, oleoresins, colours, extracts and genes used for improving crops and livestock through genetic intervention, but is not inclusive of conventional sort of breeding or traditional practices in their use or in any agriculture, horticulture, poultry, dairy farming, animal husbandry or bee keeping*.

27 "*Using Traditional Knowledge to Revive the Body and a Community*", WIPO, https://www.wipo.int/ipadvantage/en/details.jsp?id=2599, (visited on November 25, 2021).

(AICIRE), who after taking permission of that Tribe went for a Research in the territory inhabited by them. The team was also helped by these Tribal people in their Research by guiding them into the territory. The team in that Research discovered a unique tree known as Arogyapacha, (Trichopus zeylanicus) the samples of its fruits were taken to the laboratories for investigation, which subsequently revealed that this Fruit contains some immunity-building as well as anti-fatigue elements which were regarded as much valuable for human health.

After that several other chemical compounds and plant components were mixed with the fruits, leaves, etc. of that particular tree which ultimately led to the invention of a new medicine termed as Jeevani which meant for 'giver of life' at the end of seven years after the first Research. Unlike the first research team, this particular medicine was built from the leaves of the tree, not from its fruits. The first Patent on this Plant was granted from the purpose of isolating glycolipid from the plant to the Regional Research Laboratory, Jammu team in 1994. However, the research was later shifted to the Tropical Botanic Garden and Research Institute (TBGRI) who claimed for four patents for the research which were even granted but unfortunately, they could not commercialize the plant products because it was merely a research institute, thereby incapable of doing so. For this purpose, the technologies discovered by the TGBRI was transferred to Arya Vada Pharmacy Ltd at a licensing fee of US $ 50,000 and a 2% Royalties of ex-factory sale. The TBGRI agreed to share 50% of the fees amount with the Kani Community, for which The Kerala Kani Community (Samudaya) Welfare (Kshema) Trust was created in 1997, to regulate the money received by the Kanis as Benefits.[28]

Hershey's Case

The dispute arose when the Madhya Pradesh SBB filed a petition against Hershey Company after serving several notices about violation of the Act 2002 to the said Company.[29] The Company Spokesperson revealed that no strict legal complaint is issued yet, and they are in a doubt about the applicability of the said Act on the common food products used by them, as such he further ensured that the Company never violated any law of India and will also not violate in future. However, this became the first case in India where a Foreign entity has been alleged for violating the Act 2002.[30]

---

28 M Suchitra, "*The Kani Learning*", DOWNTOEARTH, October 15, 2012, https://www.downtoearth.org.in/coverage/the-kani-learning-39208, (visited on December 28, 2021).

29 "*Hershey India's US Bosses Summoned by Raisen Court*", THE TIMES OF INDIA, February 13, 2014, https://timesofindia.indiatimes.com/city/bhopal/hershey-indias-us-bosses-summoned-by-raisen-court/articleshow/30336529.cms, (visited on November 26, 2021).

30 TM Stuhldreher, "*Hershey Spar Over Biodiversity Law*", LNPLANCASTERONLINE, https://lancasteronline.com/business/local...business/hershey-india-spar-over-biodiversity-law/article...c5749518-a961-11e3-8343-0017a43b2370.html, (visited on December 26, 2021).

Pink Tablet: The First Instance of Application of the Act 2002

This case became the first case after the Act 2002 was implemented. It took place in Pune, India where Dr. Geeta Pandurang Pawar, an Ayurvedic Doctor applied to the NBA by Form (iii) for seeking permission for the purpose of preparing an anti-snake venom which will provide an initial relief to the victims of snake bites before that victim reaches the Hospital. This particular tablet needs four medicinal plants as components for its preparation. The NBA provided for 2% of the Gross Sales of this product as a share from the benefits arising out of the utilisation of the Biological Resources accessed in making this tablet.

Conclusion

An analysis with respect to freedom-to-operate of Indian biodiversity reveals that estimate has focused mainly on the goods and services obtained from forest ecosystems, agricultural lands and wetland habitats. Unfortunately, however, the environmental impact assessment requirements[31] imposed on mega development projects do not include any stipulations for assessing the net present value of these ecosystems or for application of the ABS model.[32]

After 20 years of functioning, the Act 2002, still has a visible lacuna in the form of clarity on conservation clauses, giving minimal support to the communities' need to put the control on their resources, inclusive of giving or withholding endorsement of our fourth generation of rights i.e. intellectual property rights. It has been seen repeatedly that NBA is not specifically called to consider such conservation goals, although such kind of consideration is assigned under Articles 48-A and 51- A(g) of the Indian Constitution.

The communities have the primary authority for documentation, sustainable use, and conservation of biodiversity and maintenance of ecological balance. As operated, the present ABS regime functions in a way that negates the decision-making focus on the value of resources. As such it is tantamount to stifling environmental justice for the holders of traditional knowledge.

It has been observed through historical analysis that the Indian biodiversity related legal questions and claims are rapidly increasing because of a rising public recognition of biodiversity, its importance and concerns about its steep decline at an unprecedented rate. Much like the other nation states that are signatories to the CBD, India has accepted and honoured its international legal commitment through enactments and judicial decisions. The traced judicial journey is constitutionally backed and based from the model of PIL to specialised adjudication in the NGT provides a steadfast foundation to promote decision making based upon a rights-based approach. The proactive, amicus friendly, Indian judiciary through expansive interpretation and the integrated approach of the constitutional mandates (Articles

---

31 Md. Zafar Nomani, "*Legal Framework for Environment Impact Assessment in India: A Contemporary Appraisal in Corporate Perspective*", CHARTERED ACCOUNTANT JOURNAL, Vol. 59 No. 12, 2011, pp. 1872–1879.

32 Md. Zafar Nomani, "*Future and Direction of Environmental Justice in the Context of Narmada Valley Projects Judgments*", INDRAPRASTHA TECHNOLOGY LAW JOURNAL, Vol. 2, 2007, pp. 219–241.

21, 48A and 51A(g)) have produced a powerful symbiotic link between human rights and biodiversity conservation discourse. The terminological boundaries between environment, nature, ecology and biodiversity have overlapped and blended to advance 'collective biodiversity concerns.' These include 'conservation and protection of nature and inanimate objects are inextricable parts of life', 'eco-centric approach that is life-centred, nature-centred where nature includes both humans and non-humans'; and personhood to biological identities.

However, this biodiversity litigation journey still faces challenges that mirror legal fragmentation discourse. The sectoral legislation (forests and wildlife), and the Act 2002 are part of the same corpus and share the same goals of protecting and conserving biodiversity, but the multiple governance mechanisms are conflictual. Conflicting norms and disparate institutional responses produce different and disjointed responses within biodiversity laws. The gaps in the ABS raise operational issues regarding the 'what', 'who' and 'how' thereby creating ambiguities in the governance of the protection of biodiversity and the benefits for local and indigenous communities.

Nevertheless, closer cooperation and institutional integration would provide synergetic legal structures supporting the legitimacy of biodiversity regime. For example, the establishment of the NGT, a judicial body staffed by scientific experts, engages, produces, and enforces scientifically supported policies and laws thereby taking its remit beyond the courtroom door and into the wider community. The NGT has impacted upon the country's biodiversity jurisprudence by formulating biodiversity principles where they were undervalued or undeveloped, evolving its own procedures, and exposing serious administrative and compliance weaknesses. Similarly, the formulation of draft ABS Guidelines (2019) aims to clarify and improve rules and regulations regarding the ABS governance. In the creation of synergetic legal space, all dimensions of biodiversity need to be balanced with the objectives of conservation and sustainable use as guiding principles.

The future of biodiversity litigation holds hope and promise. The Indian judiciary enjoys widespread public credibility, and the results of its positive decisions continue to resonate across the country.

***

OBSERVATIONS AND RECOMMENDATIONS OF THE INTERNATIONAL SEMINAR ON ACCESS AND BENEFIT-SHARING: SUSTAINING INDIAN BIODIVERSITY

Observations

1. **Conservation of Biological Resources**: The increasing exploitation of the ecosystems and biological resources across the world and its ill effects on the environment brought about the urgent need to safeguard the environment, and this concept gained momentum in the mid-20th century when numerous international conventions were adopted for the conservation of the environment. Increasing exploitation of biological resources and a consequent sharp decline in biodiversity led to the adoption of the Convention on Biological Diversity (CBD) with three main objectives, i.e., conservation of biological diversity, sustainable use of its components, and the fair and equitable sharing of benefits arising out of the utilisation of genetic resources.
2. **International Conventions**: The United Nations has also adopted the Nagoya Protocol on Access and Benefit-sharing 2010 (the Protocol 2010) to the CBD, and the Bonn Guidelines 2002 for the sustainable use of biological resources and ensuring access to and sharing of benefits arising from their use. In compliance with the UN mandate, India has also enacted the Biological Diversity Act of 2002, the Biological Diversity Rules of 2004, and the Access and Benefit-sharing Guidelines of 2014.
3. **Implementation of Convention on Biological Diversity in India**: India has been at the forefront of the implementation of several initiatives at the international level for the conservation of the environment, including the CBD and the Protocol 2010. With 220 Internationally Recognised Certificates of Compliance (IRCC) approved by the National Biodiversity Authority (out of a total of 322 issued worldwide), India is leading the path in the implementation of the Convention.
4. **Issues on Use of Bioresources and ABS**: Sustainable development is possible only when the users and providers of biological resources interact with each other in a mutually advantageous manner. At present, there are tensions and unresolved issues among state instrumentalities, i.e., the State Biodiversity Board, the Forest Department, wildlife wardens, etc., on the one hand, and industry, on the other hand. There are many reasons for the same. For example, lack of clarity in the existing legislation, intellectual property rights-related issues, and non-utilisation of the Access and Benefit-sharing (ABS) amount in the regeneration of forest and biodiversity areas by government bodies. This conflict has resulted in a lack of trust among state agencies and businesses that use biological resources. In this discourse, the most ignored groups are the indigenous peoples and local communities.
5. **Exploitation of Biological Resources**: Overexploitation of the resources by industry can lead to extinction of the resources, which would be harmful to all the stakeholders and would dent the biodiversity.

6. **Biological Resources and Stakeholders**: The biological resources are considered to be of high importance for all the stakeholders concerned with their conservation and use. The stakeholders include states and their instrumentalities, industries, research institutions, universities, indigenous peoples and local people.
7. **Protection to Tribal Communities**: Tribal communities are dependent on the forests and biological resources found in such areas. They collect minor forest produce to sustain their livelihood, e.g., plants or herbs, from the forests, and they are the gatekeepers of forests. Sharing the benefits arising from their commercial exploitation and research with indigenous peoples will help them in various ways. For example, if the community knows that a particular biological resource is generating monetary or non-monetary benefits for them, they will surely try to protect such a resource. Further, the monetary benefits will help in the capacity building of the community because then they will not harm the biological resource. So, both directly and indirectly, the ABS will help in the conservation of biodiversity.
8. **Awareness**: There is a general lack of awareness about CBD, the Protocol 2010, Bonn Guidelines 2002, the Biological Diversity Act 2002, Biological Diversity Rules 2004, and Access and Benefit-sharing Guidelines of 2014 among various stakeholders.
9. **Gram Sabha**: The Gram Sabha is the most important unit because bio-resources are managed and collected at this level, so the awareness and knowledge regarding the Act must be maximum at the grass-root level, but there is a lack of awareness about biodiversity conservation at the grass-root level.
10. **Companies Not Complying with Benefit-sharing Agreement**: The State Biodiversity Boards across the nation have become fully functional and are issuing notices to the companies for not entering into benefit-sharing agreements. The Act has given the legal weapon to the board under Section 56 of the Act where they can impose a fine when companies are not complying with the Act. So far, hardly any cases have been observed where SBBs have imposed fines, most likely due to the pandemic; however, the law has given the boards all the powers under the Act to impose fines wherever there is a purposeful default. Section 56 says that if there is a continuous default, the board or the authority can impose a fine of two lakh rupees per day.
11. **Corporate Social Responsibility**: Currently, the contribution of Corporate Social Responsibility (CSR) towards biodiversity conservation is roughly 2–3% of total CSR expenditure. There is immense potential to enhance this contribution. The CSR funds could be used for the conservation of biodiversity, its sustainable use, and the welfare of the conservers of biodiversity.

Recommendations

Statutory Measures

1. **Definitions**: There are many terms like by-products, normally traded commodities, and traditional knowledge that are not defined in the Biodiversity Act 2002. Benefit claimers, biological resources, value-added products, and commercial utilisation are vaguely defined in the Act. These definitions are required to be amended. The amendments proposed by Biological Diversity (Amendment) Bill 2021 have not solved the issue. Therefore, there is an urgent need to recast these definitions.
2. **Access to Biological Resources for Bio-Utilisation**: The entire discourse is on the sharing of benefits arising out of access to biological resources, but the term "access" has not been defined in the Act. The Biological Diversity (Amendment) Bill 2021 has proposed to introduce the definition, which is a good move. However, the definition proposed by the Amendment Bill is not broad enough to include access to biological resources for bio-utilisation. Therefore, the proposed definition needs to be reconsidered.
3. **Benefit-sharing Agreements**: There is confusion about the signing of benefit-sharing agreements under the Act. Section 3 requires a person who is not a citizen of India, or a non-resident Indian, and entities to sign benefit-sharing agreements with the National Biodiversity Authority to obtain any biological resource occurring in India or knowledge associated therewith for research or commercial utilisation or bio survey and bio utilisation. Section 7 deals with Indian citizens, research institutions, and companies, registered in India. These entities are required to give prior intimation to the State Biodiversity Boards for obtaining any biological resource for commercial utilisation, or bio survey and bio utilisation for commercial utilisation. There is no express provision requiring Indian entities to enter into benefit-sharing agreements with the State Biodiversity Board. Though the Uttarakhand High Court in Divya Pharmacy has held that even Indian companies are required to share the benefits, there is no express provision in this regard. Hence, Section 7 should be amended appropriately to bring clarity with respect to Indian entities.
4. **Determination of Price**: There are options for the ABS payment under Regulation 3 and Regulation 4 of the Guidelines 2014. Regulation 3 is based on the purchase value of the raw material, and Regulation 4 is based on the final price of the product, so any trader can follow either Regulation 3 or Regulation 4. This creates confusion because the raw material price and the final product price are necessarily going to be different. This ambiguity should be removed either by amending Regulation 3 or 4, or the minimum amount should be fixed as a benefit-sharing amount.
5. **Modalities of Benefit-sharing**: Section 21 of the Act empowers the National Biodiversity Authority to determine the modalities of equitable benefit-sharing with the providers of biological resources. Benefit-sharing can take the form of monetary grants, IPR grants, technology transfers, the location of production research and development units, the establishment of

a venture capital fund to help benefit-claimants with their costs, and so on. The NBA has the authority to determine the amount of monetary compensation and other non-monetary benefits paid to benefit claimants, and the State Biodiversity Board has little influence. It is submitted that the SBB and Biodiversity Management Committees should be adequately consulted on the matter.

6. **Penalty Provisions**: Section 58 declares that the offences under the Act shall be cognisable and non-bailable. However, there are hardly any cases regarding the implementation of this provision. It is claimed that this provision is unnecessarily harsh given the nature of the Act. It must, however, be noted that this gives teeth to the Act. Keeping in view the demand from various quarters, the Biodiversity Amendment Bill 2021 has proposed to remove this clause, but the omission of this provision might lead to over-exploitation of biodiversity. Therefore, section 58 needs to be amended to provide not only for imprisonment but also for the imposition of heavy fines so that the amount can be used for the restoration and sustenance of biodiversity.
7. **Limitation Period for Filing Complaint**: Further, Section 61 dealing with cognizance of offences is also required to be amended. Under this section, a court shall take cognizance of any offence only when a complaint is made by the central government or any authority or officer authorised on this behalf by that government; or by any benefit claimant who has given notice of not less than 30 days in the prescribed manner, of such offence and of his intention to make a complaint to the central government or the authority or officer authorised as aforesaid. Given the lackadaisical attitude of the government with respect to the implementation of the Act, the 30-day requirement for benefit-claimers should be removed and the filing of complaints directly before the appropriate authorities should be allowed.
8. **Time period for Utilisation of Fund**: The Act requires the ABS amount to be deposited with the NBA in its fund, state biodiversity fund, or local biodiversity fund. But it is silent on the time period within which the money should be used for designated purposes. The Act should introduce a provision requiring the utilisation of the funds in a time-bound manner. Benefit claimers should be allowed to initiate litigation if the amount is not utilised in a time-bound manner.

Executive Measures

1. **Procedural Requirements for Biological Resources**: While assessing the biological resources, there should be separate procedural requirements for biological resources assessed from *in situ* conservation areas and *ex situ* areas, respectively. In the case of *in situ* conservation, permission can be obtained as per the Biodiversity Act 2002, that is, from the National Biodiversity Authority or the State Biodiversity Board. In the case of *ex situ* conservation, permission can be obtained from the manager of that area, for example, botanical gardens, zoos, aquariums, etc.

2. **Electronic Monitoring of ABS**: A dedicated online platform should be created for the effective implementation of ABS in India and its monitoring. This online portal will disseminate information about the state of ABS implementation. This will also help in raising awareness about ABS and will serve as a guiding material on ABS for all the stakeholders.
3. **Pilot Projects on ABS**: Various pilot projects on ABS could be started across the nation with the help of private parties and non-governmental institutions to develop best practices in *sui generis* mode in India.
4. **Incentivisation of ABS**: Successful ABS implementation should be incentivised. An incentive scheme on ABS should be launched, and all those companies which are complying with the mandate of ABS may be given certification and a label, which will attract others to comply with the norms.
5. **Expert Guidance on ABS**: At present, there is a lack of guidance on benefit-sharing. Expert organisations, international or national, should be hired to make effective ABS arrangements. These organisations can apply best practices from outside India and share their experiences.
6. **Independent Audit**: The realisation of the ABS amount is not enough; its utilisation is where we have to focus. A third-party audit should be done to ensure effective utilisation of money realised from ABS.
7. **Need of Adequate Human Resources**: There should be adequate staffing of the National Biodiversity Authority, State Biodiversity Board, Biodiversity Management Committee, and village level bodies. Regular training programmes on ABS should be organised for people working in local bodies like Biodiversity Management Committees (BMC) and gram panchayats.
8. **Exploring the Non-Monetary Benefits**: Under the Act, there are two kinds of benefits that can be shared as part of the access and benefit-sharing mechanism. These are monetary and non-monitory benefits. So far, we have focused on monetary benefits and very little attention has been paid to non-monetary benefits. Time has come to utilise the option of non-monetary benefits like establishing schools, training centres, etc. in areas populated by indigenous or local communities.
9. **Capacity Building of BMCs**: There are around 2,70,000 BMCs operational in the country. Currently, the BMC lacks adequate staff and expertise with respect to the implementation of that Act. Hence, capacity building of BMCs should be undertaken through training programmes and workshops on their powers, duties and responsibilities under the Act.
10. **Digitisation of People's Biodiversity Register**: People's Biodiversity Register should be digitised. This register can be uploaded on the website and should be accessible to the general public free of charge.
11. **Public-Private Stakeholder Network**: A stakeholder network comprised of government and private parties such as industry, research institutions, and benefit claimants could be established. This network will discuss wide-

ranging ABS issues and will find ways to resolve them. This will help in eliminating the trust deficit among stakeholders and will ensure maximum inclusivity in the whole decision-making process.

12. **Corporate Sensitisation and Awareness**: There is a need for awareness generation and sensitisation of corporates and research institutions. For this purpose, collaboration can be made with universities, expert organisations, and NGOs, and training and awareness programmes should be organised for them. The stakeholders must exchange their experiences and best practices with each other based on which standard ABS and Material Transfer Agreements (SMTA) can be prepared.
13. **Awareness through Educational Institutions**: Universities can also play a decisive role in spreading awareness about ABS. Seminars, conferences, and workshops can be organised with the maximum participation of the stakeholders, providing them with a platform to share their views and the underlying issues of ABS.
14. **Role of Corporate Social Responsibility in Biodiversity Conservation**: Companies may be encouraged to earmark some portion of their CSR funds towards biodiversity conservation. NBA and MoEFCC have identified financial solutions for biodiversity conservation in the form of CSR. There is a need to promote corporates to adopt such measures in their CSR policy.
15. **Robust Conservation and Sustainable Model**: Conservation and Sustainable management of Biological Resources, although mentioned in the preamble, do not find place in the existing legal provisions. The statute majorly focusses only on ABS mechanism with little focus on Conservation and Sustainable management of the biological resources as provided under the Preamble.
16. **Decriminalisation of Offences under Act of 2002**: Violation of the provisions of the Act of 2002 causes civil wrong, therefore, imposing civil liability can do justice in the matter. Such wrong does not fit within the ambit of the classification of cognizable and non-cognizable offence. Hence, the proposal to omit Section 58 of the Act is justifiable.
17. **Need of Adequate Administrative Infrastructure**: Adequate administrative infrastructure is essential to translate the true letter and spirit of the Act 2002 into reality. Inadequacy in this regard needs to be addressed squarely.

***

OBSERVATIONS AND RECOMMENDATIONS BY THE FACULTY MEMBERS ON THE BIOLOGICAL DIVERSITY (AMENDMENT) BILL 2021

Faculty Members[♣]

The Internal Quality Assurance Cell of MNLU examined the provisions of the Biological Diversity (Amendment) Bill 2021 to analyse their relevance, necessity, and viability. The faculty members of the university deliberated on the provisions of the proposed amendment bill for two consecutive days. The comments/observations and suggestions of the university on important amendments proposed in the Bill have been explained with reasons.

The Biological Diversity Act 2002 was enacted to achieve the three objects of the Convention on Biological Diversity. In order to achieve the third objective of the Convention i.e., sharing of the benefits arising out of the utilisation of genetic resources, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation to the Convention on Biological Diversity 2010 (the Protocol 2010) was adopted. The Protocol 2010 emphasised fair and equitable sharing of benefits. In order to achieve the objective of this Protocol 2010, India enacted the Guidelines on Access and Benefit-sharing Regulations 2014. The amendment proposes to fill the void and make it specific that since India is a party to the Protocol 2010, the need for ensuring fair and equitable benefit-sharing in the Act and Regulations framed thereunder. Earlier, the provisions in the Act required only 'equitable sharing of benefits', now, it has been replaced by 'fair and equitable sharing of benefits'. However, there is also a need to lay down concrete parameters in the Regulations for determining as to what is fair and equitable in a given set of facts and circumstances. Accordingly, Reg.14(2) of Regulations of 2014 may be suitably amended by NBA in accordance with the mandate of the amendment.

Observations by the Faculty Members

1. The definition of 'Access' proposed under the Bill 2021, to be added under Section 2(a)[1] of the Act 2002 (the Principal Act) is a welcome addition as all the rights and obligations under the Act arise only upon accessing the biological resources.
2. The expression [by-products] in the definition of 'benefit claimers' as proposed under the Bill 2021, which is to be added under Section 2(aa)[2] of the Principal Act, should be replaced by the expression [derivatives].

♣ Maharashtra National Law University, Nagpur.

1 *"access" means collecting, procuring or possessing any biological resource occurring in or obtained from India or associated traditional knowledge thereto, for the purposes of research or bio-survey or commercial utilisation*.

2 *"benefit claimers" means the conservers of biological resources, their by-products, creators or holders of associated traditional knowledge thereto (excluding codified traditional knowledge only for Indians) and information relating to the use of such biological resources, innovations and practices associated with such use and application.*

The word [and] appearing in the expression 'creators and holders' has been replaced by [or] in the definition which has enlarged the scope of the section. The proposed amendment is a welcome step to enhance the scope of the definition.

The addition of Section 2(aa) proposed in the Bill 2021, creates an exception for codified traditional knowledge only for Indians. The exclusion of codified traditional knowledge only for Indians is beneficial to AYUSH practitioners and manufacturers.

A prominent definition of codified traditional knowledge is "traditional knowledge which is in some systematic and structured form, in which the knowledge is ordered, organised, classified, and categorised in some manner". According to this definition, the process of codification is a modern scientific activity. The phrase 'codified traditional knowledge only for Indians' should be defined.

Recommendation: The usage of 'codified traditional knowledge' needs further clarification.

3. Section 2(c)[3] of the Principal Act defines the term 'biological resources'. The Act provided it to be an exhaustive definition. However, in Bill 2021, the term [means] has been substituted for [includes] thereby enlarging the scope of the term biological resources and making the definition an inclusive one.

   The exclusion made for value-added products is retained but there is no list of value-added products provided by the Bill and no clarity is issued by the drafters of the Bill on the meaning of value-added products. Further, ambiguous decisions of the adjudicatory bodies have complicated the situation. Therefore, the parameters for determining value-added products may be laid down in the Rules.

   Recommendation: Parameters for determining value-added products may be laid down in the Rules.

4. The amendment proposes to omit [bio-utilization] from the definition of [bio-survey and bio-utilization] under Section 2(d)[4] of the Principal Act. Bio-utilization is one of the potential uses of bio-resources and excluding bio-utilization would leave out various activities falling under characterization, incentivisation and bioassay. Therefore, the term bio-utilization should be retained in the definition.

   Recommendation: The definition of 'bio-utilization' should be retained.

5. The definition of 'landrace' was already there in Chapter X, Section 41 of the Principal Act, the same has been shifted to the definition clause in the Bill 2021.

---

3 *"biological resources" means plants, animals and micro-organisms 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.*

4 *"bio-survey and bio-utilisation" means survey or collection of species, subspecies, genes, components and extracts of biological resource for any purpose and includes characterisation, inventorisation and bioassay.*

The coinage 'primitive' is problematic since it was used under the colonial regime with a racial connotation and it is specifically used to refer to the tribal by portraying them as uncivilised and barbaric.

Recommendation: The term [primitive] may be replaced by the term [ancient].

6. Section 3 is an important provision of the Principal Act. It regulates access to biological resources by non-citizens, foreign companies, and companies registered or incorporated in India but having foreign participation in share capital or management.

Section 3(2)(c)(ii) of the Principal Act prohibits body corporate incorporated or registered in India under any law for the time being in force which has any non-Indian participation in its share capital or management without the prior approval of the National Biodiversity Authority (NBA). The Amendment Bill has introduced the term 'foreign controlled company' in Section 3(2)(c)(ii)[5] of the Principal Act which is defined in the explanation part of the section, which will lead to confusion.

Perusal of the definition of the foreign-controlled company shows that it refers to a foreign company as defined in section 2(42) of the Companies Act[6]. A perusal of Section 2(42) of the Companies Act shows that a Foreign company is a company incorporated or registered outside India. If the phrase as defined in the Companies Act is substituted for the [foreign-controlled company] in the proposed definition, it would run as: "incorporated or registered in India under any law for the time being in force which is incorporated or registered outside India". It is likely to cause ambiguity.

Recommendation: Original provision enunciated in Section 3(2)(c)(ii) should be retained.

Under Section 6 of the Bill 2021 the new term [entity] after the words [no person] has been used. However, the Bill does not contain the definition of the word 'entity' and hence leaving scope for confusion.

Previously the approval of NBA was required for transfer of results of any research relating to any biological resources occurring in or obtained from India. A new term [share] has been added before [transfer] by the Amendment Bill. Therefore, prior written approval of NBA is required not only for transferring the results of research on any biological resource occurring in or obtained or assessed from India and associated traditional knowledge thereto but also for sharing of this result by any means with

---

5 *"foreign controlled company" means a foreign company within the meaning of clause (42) of section 2 of the Companies Act, 2013 which is under the control of a foreigner.*

6 *"foreign company" means any company or body corporate incorporated outside India which--(a) has a place of business in India whether by itself or through an agent, physically or through electronic mode; and (b) conducts any business activity in India in any other manner; incorporated or registered in India under any law for the time being in force which has any non-Indian participation in its share capital or management.*

foreign persons, companies, and research institutions. This has relatively enlarged the scope of Section 4 of the Principal Act.

Exception is made from the above requirement for codified traditional knowledge which is only for Indians. The section does not apply to the publication of research papers or dissemination of knowledge in any seminar or workshop in India or outside even if it involves any financial benefit provided it follows the guidelines issued by the Central government. The phrase 'involving financial benefit' is a new addition.

The second proviso[7] is a new addition that requires sharing or transfer of results of research for further research. In this case, registration with NBA is necessary.

The requirement of signing benefit-sharing agreements is not expressly mentioned in the Bill which might create confusion in the future.

The third proviso[8] of the Section provides using results of research for commercial utilisation for attaining any IPR within or outside India. In this case, prior approval of NBA is required to be taken in accordance with the Act which means that Section 3 of the Act empowers NBA to sign benefit-sharing agreements as part of approving the Section 3(2) entities. The provision akin to the third proviso was present in ABS Regulations 2014.

Recommendation: The term 'entity' should be defined. The second proviso should be clarified to differentiate between 'approval' and 'registration'.

7. Section 6 of the Principal Act deals with the application for any Intellectual Property Rights (IPR) in or outside India for an invention based on any research or information on a biological resource assessed from India to be made after obtaining NBA's approval. The word [obtained] in 'biological resource obtained from India' has been replaced with [accessed] thereby enlarging the scope of Section 6 of the Principal Act. Earlier, the Act was restricted to biological resources only but now it also covers repositories outside India and associated traditional knowledge which is again a good step to enforce sovereign rights over biological resources.

   The Bill 2021 under Section 8[9] makes it mandatory for the foreign applicants to obtain prior approval of NBA whereas applicants under

---

7 *Provided further that where the results of research are used for further research, then, the registration with National Biodiversity Authority shall be necessary:*

8 *Provided also that if the results of research are used for commercial utilisation or for obtaining any intellectual property rights, within or outside India, prior approval of National Biodiversity Authority shall be required to be taken in accordance with the provisions of this Act.*.

9 *(1) Any person or entity applying for an intellectual property right, covered under sub-section (2) of section 3, by whatever name called, in or outside India, for any invention based on any research or information on a biological resource which is accessed from India, including those deposited in repositories outside India, or associated traditional knowledge thereto, shall obtain prior approval of the National Biodiversity Authority before grant of such intellectual property rights. (1A) Any person applying for any intellectual property right, covered under section 7, by whatever name called, in or outside India, for any invention based on any research or information on a biological*

Section 7 require registration with NBA before granting of IPR. The amendment is a welcome addition.

8. Section 7 is an important provision of the Principal Act which regulates access to Biological resources by Indian citizens, body corporates, and other associations registered in India. The only requirement is a prior intimation to the State Biodiversity Board before accessing biological resources. However, keeping in view the litigations around the meaning of the concept of prior intimation, it is required that the phrase [prior intimation] be replaced by [prior permission]. Therefore, at the time of permission, the State Biodiversity Board shall be in a better position to impose and regulate ABS arrangements.
9. In Section 9 of the Amendment Bill 2021, the phrase [for commercial utilisation, or bio-survey and bio-utilisation for commercial utilisation] has been replaced by the phrase [for commercial utilisation] under Section 7 of the Principal Act. It has restricted the application of the provision. Therefore, access to biological resources for bio-survey would not be covered under this provision anymore. If the results are later on used for commercial benefits, it would be difficult to ensure the applicability of ABS arrangements. Therefore, the phrase in the Principal Act should be retained.

   Further, the scope of proviso has been expanded to include AYUSH practitioners and cultivated medicinal plants. Whereas exclusion of cultivated medicinal plants can reduce the stress on biological resources naturally occurring, the blank exclusion of AYUSH practitioners will put further strain on biological resources.

   Recommendations:

   (i) Original phrase used in Section 7 of the Principal Act i.e. [for commercial utilisation, or bio-survey and bio-utilisation for commercial utilisation] should be retained.

   (ii) Exemption granted to all AYUSH practitioners is required to be regulated. Therefore, conditions should be prescribed for this purpose in the Rules.

   (iii) The expression [prior intimation] should be replaced with the phrase [prior permission].
10. Section 18(4) of the Principal Act by the Amendment Bill 2021 under Section 16 replaced the words [obtained from India] with the words [which is found in or brought from India], including those 'deposited in repositories outside India'. The amendment has enlarged the scope of the

---

resource which is accessed from India, including those deposited in repositories outside India, or associated traditional knowledge thereto, shall register with the National Biodiversity Authority before grant of such intellectual property rights. (1B) Any person covered under section 7 who has obtained intellectual property right, by whatever name called, in or outside India, for any invention based on any research or information on a biological resource which is accessed from India, including those deposited in repositories outside India, or associated traditional knowledge thereto, shall obtain prior approval of the National Biodiversity Authority at the time of commercialisation.

powers of the NBA in opposing grants of patents outside which is a welcome step to enforce the mandate of CBD and the Act 2002.

11. Section 19 of the Principal Act by the Amendment Bill 2021 under Section 17 has proposed to omit the words [bio-survey] and [bio-utilization] which will restrict the scope of the Act. The Bill has proposed to omit the words [or transfer the results of any research relating to biological resources occurring in, or obtained from, India], from Section 19(1) of the Principal Act. This would restrict the scope of the section.

    Recommendations:

    (i) Words [bio-survey] and [bio-utilization] should be retained.

    (ii) Words [or transfer the results of any research relating to biological resources or associated traditional knowledge accessed from India] should be inserted in the proposed Section 19(1) after the words 'commercial exploitation'.

12. Section 21 of the Principal Act by the Amendment Bill 2021 under Section 19 has replaced [equitable benefit-sharing] with the term [fair and equitable benefit-sharing] at various places in the Act which is a welcome move. The Amendment Bill removes representation of Biodiversity Management Committees (BMCs) and benefits-claimers at the time of determination of fair and equitable benefit-sharing by the NBA. This reduces stakeholder participation in decision making. The BMCs shall be consulted by the NBA independently as they have information on the ground realities of the area. The benefit-claimers must also be involved in decision-making through participation/hearing.

    Recommendations:

    (i) In the proposed Section 21(1), the words [and the Biodiversity Management Committee represented by the National Biodiversity Authority] shall be replaced by the words [National Biodiversity Authority in consultation with Biodiversity Management Committee and Benefit Claimers].

    (ii) Word [by-products] should be replaced by the word [derivatives] in line with the definition of the term biological resources.

13. Section 40 of the Principal Act by the Amendment Bill 2021 under Section 29 adds agricultural waste and cultivated medicinal plants in the category of normally traded commodities thereby further limiting the scope of application of the Act and expanding the scope of exemptions under the Act. This would be against the mandate of conservation and sustainable use of biodiversity. Exemption to cultivated medicinal plants seeks to reduce the burden on biological resources naturally occurring. However, the mechanism for determining whether biological resources are obtained from cultivated medicinal plants or from naturally occurring biological resources are difficult to provide. Hence, the provision might lead to excessive commercial exploitation of biological resources. However, no exemption is made for any of the above-mentioned commodities with respect to Section 6(1) and (2) of the Principal Act which deals with the application for IPR not to be made without the prior approval of the NBA.3

Recommendations:

(i) Words [agricultural waste] should be removed from the proposed Amendment Bill 2021.

(ii) Mechanism to regulate whether the biological resource is obtained from cultivated medicinal plant or otherwise should be strengthened.

14. Section 55 of the Principal Act by the Amendment Bill 2021 under Section 38 decriminalises the act by removing penal provisions from Section 55. It would reduce the deterrent effect of the Act. Hence, penal provision should be retained. However, the amount of fine has been substantially increased which is a welcome addition to create deterrence and to prevent the exploitation of biological resources.

    Section 55B is a welcome addition, empowering the adjudication mechanism with the powers of inspection, search and survey.

    Recommendation: The penal provisions from Sections 55-58 should be retained as in the Act 2002 while at the same time prescribing fines to the extent proposed by the Amendment Bill.

15. Under Section 58 of the Principal Act, the offenses were both cognizable and non-bailable. The Proviso is removed by the Bill, making the enforcement mechanism less effective.
    Recommendation: Original provision should be retained.

***

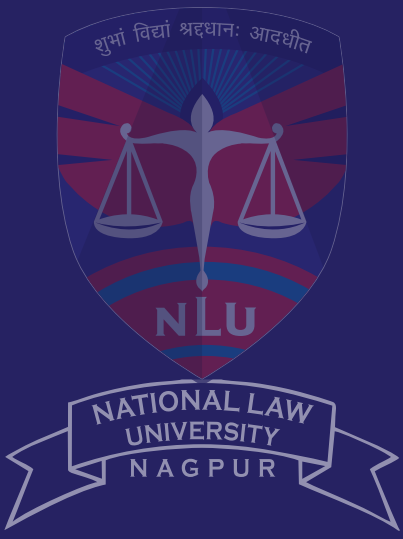
FORM-IV

Statement of Ownership and other particulars about the
MNLU, Nagpur CONTEMPORARY LAW REVIEW

Place of Publication	:	Nagpur
Periodicity of Publication	:	Biannually
Printer's Name	:	Maharashtra National Law University, Nagpur, Waranga, PO: Dongargaon (Butibori), Nagpur-441108, Maharashtra
Nationality	:	Indian
Address	:	Maharashtra National Law University, Nagpur, Waranga, PO: Dongargaon (Butibori), Nagpur-441108, Maharashtra
Publisher's Name	:	Dr. Ashish J. Dixit Registrar Maharashtra National Law University, Nagpur, Maharashtra
Editor's Name	:	Prof. (Dr.) Himanshu Pandey Professor of Law
Nationality	:	Indian
Address	:	Maharashtra National Law University, Nagpur, Waranga, PO: Dongargaon (Butibori), Nagpur-441108, Maharashtra
Owner's Name	:	Maharashtra National Law University, Nagpur

I, Ashish J. Dixit, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Sd/-
Ashish J. Dixit
Registrar



www.nlunagpur.ac.in