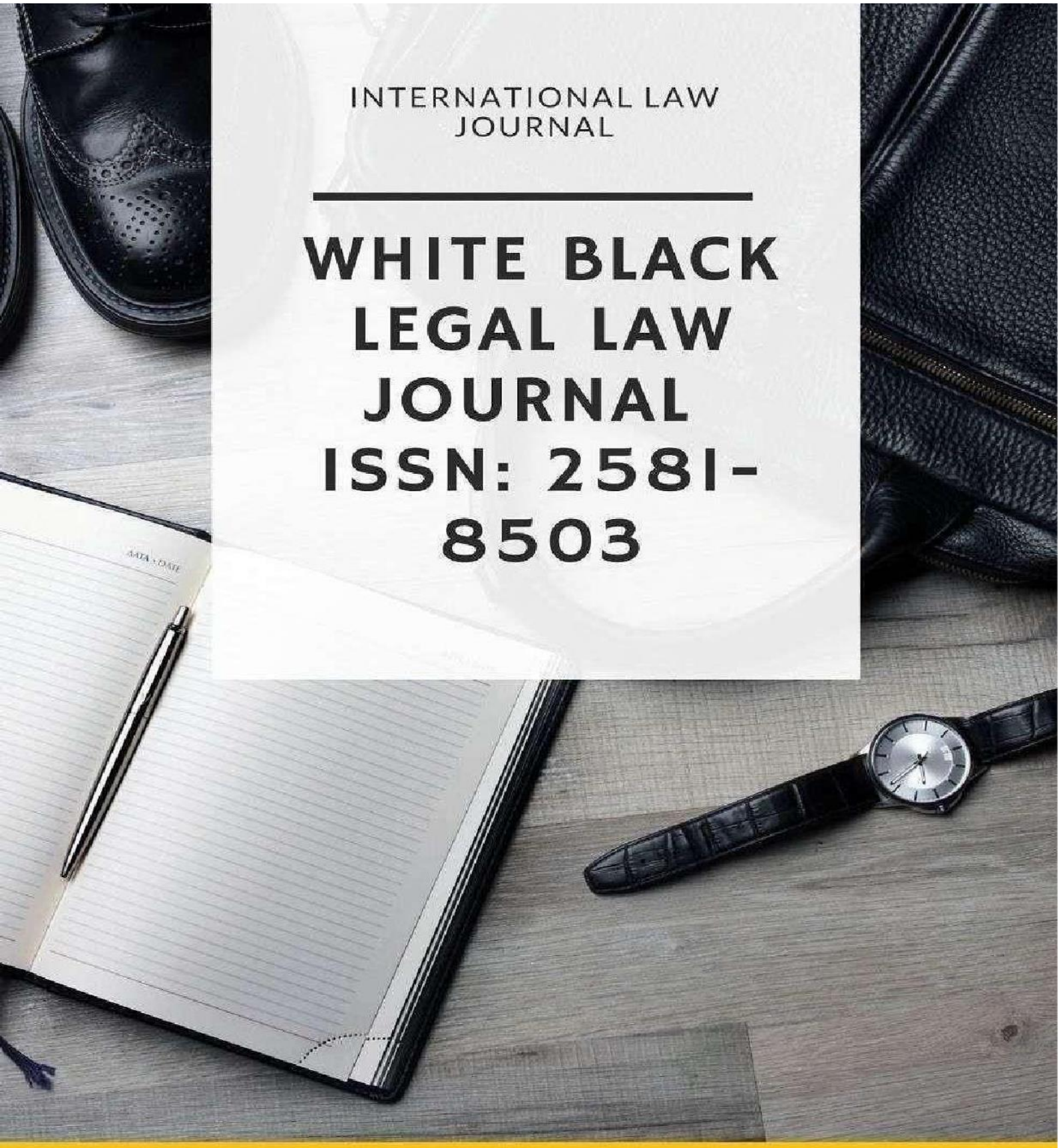


INTERNATIONAL LAW JOURNAL

WHITE BLACK LEGAL LAW JOURNAL

ISSN: 2581-8503

Peer - Reviewed & Refereed Journal

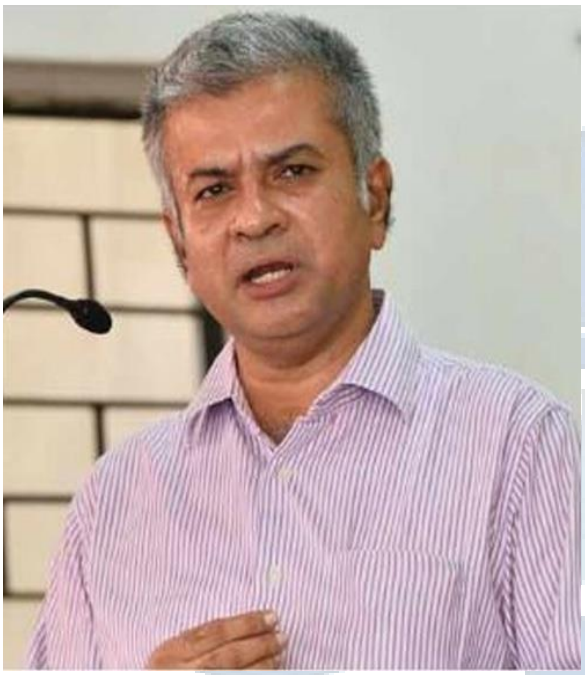
The Law Journal strives to provide a platform for discussion of International as well as National Developments in the Field of Law.

WWW.WHITEBLACKLEGAL.CO.IN

DISCLAIMER

EDITORIAL TEAM

Raju Narayana Swamy (IAS) Indian Administrative Service officer



Dr. Raju Narayana Swamy popularly known as Kerala's Anti Corruption Crusader is the All India Topper of the 1991 batch of the IAS and is currently posted as Principal Secretary to the Government of Kerala . He has earned many accolades as he hit against the political-bureaucrat corruption nexus in India. Dr Swamy holds a B.Tech in Computer Science and Engineering from the IIT Madras and a Ph. D. in Cyber Law from Gujarat National Law University . He also has an LLM (Pro) (with specialization in IPR) as well as three PG Diplomas from the National Law University, Delhi- one in Urban Environmental Management and Law, another in Environmental Law and Policy and a third one in Tourism and Environmental Law. He also holds a post-graduate diploma in IPR from the National Law School, Bengaluru and a professional diploma in Public Procurement from the World Bank.

Dr. R. K. Upadhyay

Dr. R. K. Upadhyay is Registrar, University of Kota (Raj.), Dr Upadhyay obtained LLB , LLM degrees from Banaras Hindu University & Phd from university of Kota.He has succesfully completed UGC sponsored M.R.P for the work in the ares of the various prisoners reforms in the state of the Rajasthan.

Senior Editor

Dr. Neha Mishra

Dr. Neha Mishra is Associate Professor & Associate Dean (Scholarships) in Jindal Global Law School, OP Jindal Global University. She was awarded both her PhD degree and Associate Professor & Associate Dean M.A.; LL.B. (University of Delhi); LL.M.; Ph.D. (NLSIU, Bangalore) LLM from National Law School of India University, Bengaluru; she did her LL.B. from Faculty of Law, Delhi University as well as M.A. and B.A. from Hindu College and DCAC from DU respectively. Neha has been a Visiting Fellow, School of Social Work, Michigan State University, 2016 and invited speaker Panelist at Global Conference, Whitney R. Harris World Law Institute, Washington University in St.Louis, 2015.

Ms. Sumiti Ahuja

Ms. Sumiti Ahuja, Assistant Professor, Faculty of Law, University of Delhi,

Ms. Sumiti Ahuja completed her LL.M. from the Indian Law Institute with specialization in Criminal Law and Corporate Law, and has over nine years of teaching experience. She has done her LL.B. from the Faculty of Law, University of Delhi. She is currently pursuing Ph.D. in the area of Forensics and Law. Prior to joining the teaching profession, she has worked as Research Assistant for projects funded by different agencies of Govt. of India. She has developed various audio-video teaching modules under UGC e-PG Pathshala programme in the area of Criminology, under the aegis of an MHRD Project. Her areas of interest are Criminal Law, Law of Evidence, Interpretation of Statutes, and Clinical Legal Education.

Dr. Navtika Singh Nautiyal

Dr. Navtika Singh Nautiyal presently working as an Assistant Professor in School of law, Forensic Justice and Policy studies at National Forensic Sciences University, Gandhinagar, Gujarat. She has 9 years of Teaching and Research Experience. She has completed her Philosophy of Doctorate in 'Intercountry adoption laws from Uttranchal University, Dehradun' and LLM from Indian Law Institute, New Delhi.

Dr. Rinu Saraswat

Associate Professor at School of Law, Apex University, Jaipur, M.A, LL.M, Ph.D,

Dr. Rinu have 5 yrs of teaching experience in renowned institutions like Jagannath University and Apex University. Participated in more than 20 national and international seminars and conferences and 5 workshops and training programmes.

Dr. Nitesh Saraswat

E.MBA, LL.M, Ph.D, PGDSAPM
Currently working as Assistant Professor at Law Centre II, Faculty of Law, University of Delhi. Dr. Nitesh have 14 years of Teaching, Administrative and research experience in Renowned Institutions like Amity University, Tata Institute of Social Sciences, Jai Narain Vyas University Jodhpur, Jagannath University and Nirma University.
More than 25 Publications in renowned National and International Journals and has authored a Text book on Cr.P.C and Juvenile Delinquency law.

Subhrajit Chanda

BBA. LL.B. (Hons.) (Amity University, Rajasthan); LL. M. (UPES, Dehradun) (Nottingham Trent University, UK); Ph.D. Candidate (G.D. Goenka University)

Subhrajit did his LL.M. in Sports Law, from Nottingham Trent University of United Kingdoms, with international scholarship provided by university; he has also completed another LL.M. in Energy Law from University of Petroleum and Energy Studies, India. He did his B.B.A.LL.B. (Hons.) focussing on International Trade Law.

ABOUT US

WHITE BLACK LEGAL is an open access, peer-reviewed and refereed journal providededicated to express views on topical legal issues, thereby generating a cross current of ideas on emerging matters. This platform shall also ignite the initiative and desire of young law students to contribute in the field of law. The erudite response of legal luminaries shall be solicited to enable readers to explore challenges that lie before law makers, lawyers and the society at large, in the event of the ever changing social, economic and technological scenario.

With this thought, we hereby present to you

BIOPIRACY AND INDIGENOUS RIGHTS: THE STRUGGLE FOR FAIR RECOGNITION AND BENEFIT-SHARING

AUTHORED BY - KHUSHI GUPTA & ROHAN TYAGI

ABSTRACT

India is a home to broad and diverse range of cultures as well as customs. Resulting, sticking out as a nation with abundance of traditional knowledge. Which has been used since decades to provide treatments human afflictions that have tried and true. Lack of patent offices awareness and legal protection of traditional knowledge it is challenging to prevent biopiracy. The paper focuses on the seriousness of the issue at the international as well as national levels and the efforts that have been made, along with the challenges biopiracy. The author has also emphasized on the legal angle on the entire issue, the Indian legislations its gaps along with international agreements and conventions, which have been passed or partake in by the world community to make biopiracy impossible to attempt. The author has also discussed real life cases where such attempts have been thwarted by government or it failed to prevent misuse .of traditional knowledge. The article concludes with few valid proposals and recommendations which can help protect Traditional Knowledge against the menace of Bio-piracy.

Keywords: Biopiracy, Traditional Knowledge, Intellectual Property Rights, Benefit Sharing, Biodiversity Conservation

1. INTRODUCTION

The deceitful use of traditional knowledge by corporations and individuals for profit is a significant issue in India. Due to the development of biotechnology coupled with social and economic development the rich biodiversity of India and its traditional knowledge of native people and local communities is under a threat. Perfect word coined for this threat is "Biopiracy". Biopiracy refers to the unauthorized use of biological resources and associated traditional knowledge for commercial gain, often without recognition or compensation to the communities that have developed and preserved this knowledge for generations. India, with

its vast biodiversity and deep-rooted traditional practices, has become a significant target of biopiracy, as corporations and individuals seek to misuse its rich natural resources without consent.[1]

For ages, native communities in India have utilized plant and animal resources for medicinal and other purposes, such as the use of neem, turmeric, and pudina in traditional medicine. One of the most eminent cases of biopiracy includes the patenting of turmeric's medicinal properties by foreign corporations, despite its well-documented use in Ayurveda for thousands of years. Likewise, neem tree oil known for its antibacterial and pesticidal properties, has been the subject of patents filed by multinational companies, raising serious concerns about the exploitation of traditional knowledge. Biopiracy can take multiple forms, primarily through obtaining intellectual property rights (mostly patents or Plant Breeders' Rights) over biological resources and traditional knowledge without proper acknowledgment or benefit-sharing with the original holders. It also includes the direct profiteering exploitation of such resources without permission, thereby robbing native communities of their rightful economic and cultural interests.[2]

This issue not only threatens the rights of native populations but also endangers the renewable use of natural resources. As scientific innovation continue to intersect with traditional practices, the need to address biopiracy has become more urgent than ever. India's biodiversity and cultural heritage must be looked after to ensure that traditional knowledge remains protected and that local communities receive fair recognition for their contributions.

2. IMPLICATIONS OF BIOPIRACY

Bioprospecting has been an integral part of social and economic development. Bioprospecting is scrutinization of biological resources for profitable uses and it ushers to biopiracy. Implications if biopiracy are both economic and ethical.

2.1 DENIAL OF PROFIT RIGHTS TO TRADITIONAL COMMUNITIES

Due low level of knowledge and understanding by traditional communities, they do not get any

[1] Shahnaz Kaushar, "bio-piracy in india: a practice of patenting traditional knowledge for profit", Volume 1 Issue 1 IPR Journal of Maharashtra National Law University, Nagpur page 54 (June 2023)
[2] Subham S. Chatterjee, "biopiracy and its growing threat to biodiversity in india: a bird's eye view", Volume 1 NLIU LAW REVIEW page 24 (2021)

acknowledgement for preserving and developing the resources/knowledge in the first place. By attaining IPRs or other related rights the corporations abuse biological resources and traditional knowledge, and the primary holders of these resources / knowledge do not get any share in the profits made from capitalizing the products by corporations using their resources/knowledge.

2.2 RESTRICTION ON TRADITIONAL COMMUNITIES' ACCESS TO THEIR OWN RESOURCE/ KNOWLEDGE

Once an IPR is acquired over a particular resource or a knowledge, the IPR holder may dictate the terms of use of the IPR-protected resource/knowledge. Therefore/ thus when a corporation exploit biological resources by attaining IPRs that prevents traditional communities the primary holders of resource/ knowledge from having authority over or access to their resource/ knowledge.[3]

3. CHALLENGES OF BIOPIRACY

3.1 Exploitation of Trditional Knowledge Without Consent

Many traditional practices vocally passed down and not corroborated, making claiming ownership easy for corporations. One of the most significant challenges of biopiracy is unapproved use of traditional knowledge and unique genetic resources. Native communities have used these resources for ages, but corporations and researchers many times patent them without compensating or taking the approval of primary holders and take advantage of the fact that often traditional knowledge holders are unaware of patent laws plus lack resources to face legal battles.

3.2 Patenting of Genetic Resources by Foreign Corporations

Patenting gives corporations preferential rights which prevents native communities from using their own resources. Many times, pharmaceutical and biotechnology companies patent genetic materials from plants, animals etc. which are found in biodiversity rich countries without recognizing or remunerating the original user. Hence creating monopolies and restrict access to natural resources.

[3] Subham S. Chatterjee, "biopiracy and its growing threat to biodiversity in india: a bird's eye view", Volume 1 NLIU LAW REVIEW page 30 (2021)

3.3 Difficulty in Proving Biopiracy

Often traditional knowledge traditional knowledge is handed down orally, lacking official authentication. Proving prior usage of biological resources and traditional knowledge is challenging making legal battles in biopiracy long and complex. Plenty native communities don't have documented records, which makes it easier for corporations to slightly modify substances make discoveries and claim them as new inventions.

3.4 Inadequate Benefit-Sharing Mechanisms

Most corporations determine loopholes to avoid benefit sharing agreements as native communities lack legal support to demand compensation. Even if when companies recognize the source of the genetic material, they hardly share profits with communities. Compliance of Access and Benefit Sharing (ABS) of Nagoya Protocol is weak.

4. PROHIBITING THE COMMERCIAL USE OF BIOLOGICAL RESOURCES BY TRADITIONAL COMMUNITIES

Businesses use bioprospecting to do extensive research and produce new goods. They want complete control over the commercial usage, manufacturing, marketing, and sale of their discoveries and the goods that come from them in order to recover these expenses and stop others from making money off of their work. For this purpose, the business corporations find it necessary to assert IPRs over biological resources and traditional knowledge. Once an IPR is acquired by a 'biopirate' (the business organization which has acquired the IPR over the resources) on any of the biological resources, the original holders of a biological resource or related traditional knowledge are barred from making any commercial use of the IPR-protected knowledge or resource despite the fact that they have preserved and used such resources for generations and have nurtured and developed the natural resources and related knowledge over generations to its present form. There also lies a threat that in future the traditional communities may have to buy the products of these companies (holding the patents) at a high price. The original owners of a biological resource or related traditional knowledge are prohibited from using the IPR-protected knowledge or resource for any commercial purpose once an IPR is acquired by a "biopirate" (the business organization that has acquired the IPR over the resources) on any of the biological resources. This is true even if they have used and preserved the resources for generations and have developed and nurtured the natural resources and related knowledge to their current state. Additionally, there is a risk that these corporations' (the patent

holders') products will eventually be too expensive for the traditional communities to purchase.[4]

5. BIOPIRACY AND LEGAL SAFEGUARDS: INTERNATIONAL CONVENTION AND WEAKNESS IN INDIAN LEGISLATION

5.1. International Conventions on Biopiracy

Several international agreements address the issue by regulating major areas that are impacted due to biopiracy some of the major international convention on biopiracy are as under-

5.1.1. The Convention on Biological Diversity (CBD), 1993

On December 29, 1993, the Convention on Biological Diversity (CBD) became effective. It has 3 main objectives:

a) The conservation of biological diversity.
b) The sustainable utilisation of the elements of biological diversity.
c) The just and equitable sharing of the benefits arising out of the utilisation of genetic resources.[5]

It addresses biodiversity at all scales which includes ecosystems, species, and genetic resources.

5.1.2. Cartagena Protocol, 2003

The Convention on Biological Diversity was supplemented by the Cartagena Protocol, which was created on January 29, 2000, and went into effect on September 11, 2003. On 29 January 2000, the Conference of the Parties to the Convention on Biological Diversity entered a supplementary agreement to the Convention known as the Cartagena Protocol on Biosafety. The Protocol intent is to protect biological diversity from the possible risks posed by biotic modified organisms resulting from modern biotechnology. It establishes an advance informed agreement (AIA) procedure to make sure that countries are provided with the information essential to make informed decisions before agreeing to the import of such organisms. The Protocol contains reference to a approach and reaffirms the precaution language in Principle 15 of the Rio Declaration on Environment and

[4] Subham S. Chatterjee, "Biopiracy and its Growing Threat to Biodiversity in India: A Bird's Eye View" 2 NLIU Law Review 31 (2021).
[5] Convention on Biological Diversity (CBD), India, available at: https://www.cbd.int/intro (last visited on February 12, 2025).

Development. The Protocol also focuses on Biosafety Clearing- House to facilitate the interchange of information on biotic modified organisms and to help countries in the implementation of the protocol.[6]

5.1.3. Nagoya Protocol, 2014

The Nagoya Protocol on ABS was enacted on 29 October 2010 in Nagoya, Japan and entered into effect on 12 October 2014, 90 days after the deposit of the fiftieth instrument of ratification. Its purpose is the just and equitable sharing of benefits coming from the utilization of genetic resources, thereby aiding to the conservation and sustainable use of biodiversity.

The Nagoya Protocol will have a greater impact in creating greater legal certainty and transparency for both providers and users of genetic resources by:

a) Establishing more foreseeable conditions for access to genetic resources.
b) Helping to ensure benefit-sharing when genetic resources leave the country providing the genetic resources[7]

5.2. Deficiencies in Indian legal framework

In India the major laws that deal with protection of biodiversity and traditional knowledge are:

a) Biological Diversity Act (BDA), 2002
b) Protection of Plant Varieties and Farmers' Rights Act,2001
c) Geographical Indication of Goods (Registrations and Protection) Act, 1999 (hereinafter referred to as the GI Act,1999)
d) Patents Act, 1970 (as amended in 1999, 2002, 2005)

India though have its own legal framework yet there are certain deficiencies in the legal framework which are discussed as under-

5.2.1. Biological Diversity Act, 2002

Confined participation of traditional communities, major decision making bodies like NBA, SBB, and BMCs) do not contain members from the traditional communities.

[6] Cartagena Protocol, India, available at: https://bch.cbd.int/protocol/background (last visited on February 12, 2025).
[7] Nagoya Protocol, India, available at: https://www.cbd.int/abs/about (last visited on February 12, 2025).

This exclusion undermines the principle of prior informed consent, as mandated by the 1992 Convention on Biological Diversity, especially in processes involving the approval for accessing biological resources, transferring research results, or applying for intellectual property rights.

5.2.2. The Protection of Plant Varieties and Farmer's Rights Act, 2001

The main issue with the PPVER Act, 2001 is that this act, the gravity is on the farmers to register the plant or seed variety intended for protection. In India due to deprived awareness among the farmers it is observed that an average farmer would be able to get their variety registered.[8]

6. SIGNIFICANT LANDMARK CASES CONCERNING BIOPIRACY

6.1 Turmeric Case (Curcuma longa Linn)

Turmeric, widely used in India and as traditional medicine, is also known for its medicinal properties. In 1995, a US patent was granted to two Indian-based researchers at the University of Mississippi Medical Center for use of turmeric in wound healing. The Indian government challenged the patent, citing Sanskrit texts and a 1953 research article as evidence of prior art. The US Patent Office cancelled this patent in 1997 after concluding that there was no originality and that the information about the patent had been well-known in India for a long time.[9]

6.2. Neem Case (Azadirachta indica A. Juss)

The Neem case was a legal battle between India and United States in the 1990s over the patents on Neem tree and its medicinal properties. Several US companies sought patents, and in 1994, the European Patent Office (EPO) granted W.R. Grace a patent for a method using Neem oil to control fungus on plants.

India then challenged the patent in the European Patent Office (EPO), claiming that the patent unjustly usurped traditional Indian knowledge because the antifungal properties of neem were well known in India. The EPO refused the patent granted to W.R. Grace in 2000, following

[8] Shubham S. Chatterjee, "Biopiracy and its Growing Threat to Biodiversity in India" 2 NLIU Law Review 44 (2021).
[9] Shahnaz Kaushar, "Bio-Piracy in India: A Practice of Patenting Traditional Knowledge for Profit" 1 IPR Journal of Maharashtra National Law University, Nagpur 57 (2023).

a cumbersome legal dispute between India and the US. The EPO recognised that the fungicidal properties of Neem were already well-known in India and that the patent granted to W.R. Grace was not based on any legitimate novelty.[10]

6.3. Basmati Rice Case (Oryza sativa Linn.)

The Basmati rice case involved a legal dispute between India and the US concerning the ownership and recognition of Basmati rice as geographical indication. In 1997, US company, applied for a patent on Basmati rice and its cultivation methods in the US. 2 India opposed this, arguing that Basmati rice originated in India and that RiceTec's patent application was biopiracy, an attempt to steal traditional knowledge. India petitioned the US Patent and Trademark Office to block RiceTec's patent, asserting that Basmati rice had been grown in India for centuries and was known for its unique aroma, taste, and cooking qualities. India also argued that RiceTec's patent would monopolise Basmati rice production and export, harming Indian farmers.

The patent issued to RiceTec in 2001 was successfully contested and revoked by the Indian government. The USPTO observed that Basmati rice was a product endemic to India and that the use of the term "Basmati" on RiceTec's products was deceitful to consumers. The USPTO's decision was seen as a victory for India's traditional knowledge and the protection of Geographical Indications.[11]

7. BIOPIRACY PREVENTION AND RECOMMENDATIONS

At international level conventions like Convention on Biological Diversity (CBD), Nagoya and WIPO must work together to take more strict rules regarding the biopiracy with more stricter punishments and along with it awareness must be created both at the national and international level. Promotion of ethical research practices must be done which would further inculcate (awareness raising, guidelines and code of conduct and transparency.

A crucial step in this regard would be to amend the 'TRIPS Agreement'. The TRIPS Agreement does not provide IPR protection for traditional knowledge which is mainly available in the

[10] Shahnaz Kaushar, "Bio-Piracy in India: A Practice of Patenting Traditional Knowledge for Profit" 1 IPR Journal of Maharashtra National Law University, Nagpur 58 (2023).
[11] Shahnaz Kaushar, "Bio-Piracy in India: A Practice of Patenting Traditional Knowledge for Profit" 1 IPR Journal of Maharashtra National Law University, Nagpur 59 (2023).

developing countries. India and other developing countries have often argued that it should provisions (which are present in the CBD) whereby IPR applicants would be obliged to:

a) disclose the geographical origin of biological resources/traditional knowledge used in innovation;
b) obtain the prior informed consent of local communities who are the customary holders of traditional knowledge and share the subsequent benefits with traditional communities[12]

8. CONCLUSION

Biopiracy persist a crucial threat to India's rich biodiversity and traditional knowledge, depriving native communities of due acknowledgment and financial benefits. Regardless of international conventions like the CBD, Nagoya Protocol, and Cartagena Protocol, as well as national legislation such as the Biological Diversity Act, 2002, and the Patents Act, 1970, loopholes continue to allow the misuse of genetic resources by multinational corporations. Landmark cases like turmeric, neem, and basmati rice highlight the uttermost need for stronger legal frameworks, stronger enforcement mechanisms, and heightened consciousness among traditional knowledge holders.

To effectively fight biopiracy, India must aim for amendments to the TRIPS Agreement, making sure mandatory disclosure of the roots of biological resources and prior informed consent from native communities. Reinforcing benefit-sharing mechanisms, enhancing documentation of traditional knowledge, and promoting ethical research practices are important steps forward. International cooperation, along with national-level legal reforms and awareness campaigns, will play crucial role in making sure that traditional knowledge remains protected, fairly compensated, and protected for future generations.

[12] Subham S. Chatterjee, "Biopiracy and its Growing Threat to Biodiversity in India: A Bird's Eye View" 2 NLIU Law Review 49 (2021).