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A CRITICAL STUDY ON BIODIVERSITY AND INTELLECTUAL PROPERTY RIGHT IN THE INDIAN CONTEX.

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ABSTRACT:

The protection of biodiversity under the IPR is the emerging debate that how intellectual property rights can contribute towards the protection of biodiversity as it is a backbone of sustainable development. The research paper will include the historical background of IPRs related to biodiversity and how IPRs and biodiversity can co-exist together. The research paper will also analyze the contradiction between TRIPS and the Convention on Biological Diversity that how India is adopting both the convention for proper implementation of the intellectual property right and the above-mentioned legal instrument which is benefitting India most practically and helping to preserve its biodiversity. The paper will also highlight the recent IPR's changing trend in regard to biodiversity in India and the present case law *Divya Pharmacy v. Union of India, 2018*, and its importance in Intellectual property rights.

LITERATURE REVIEW:

- Dr. Ratnakar Adhikari in the Article “Emerging Issues Relating To Conflicts between TRIPS and Biodiversity” the article talks about the exclusive definition of IPR and also the controversies between the CBD and TRIPS the article also discusses the regional efforts made by the states to incorporate the IPR laws and the steps which are taken by the south Asian states to conserve the biodiversity and number of treaties which the states signed in respect to biodiversity protection.
- Ashish Kothari in the Article “ Biodiversity and Intellectual Property Rights: Can the two Co-exists” the article talks about the history and origin of the IPR laws in the world and in India it also explains the long going battle of IPR law and Biodiversity and also the controversies between CBD and TRIPS agreement that how the objective of both conventions are different from each other the articles also stipulates the other alternative regimes of IPR laws and how they are useful for the protection of biodiversity.
- Pankhuri Agarwal in the Article “Problems with the Indian Plant Varieties Regimes: A Myth or Reality? This article talks about the rights of farmers and the existing farmer's varieties and the problems being faced by the farmers by the new plant varieties act and what are the problems which are being faced by the Farmers regarding its registration process and the certification of the registration by the authority which is mentioned in the act.
- Sabuj Kumar Chaudhuri in the Article “The impact of IPR on biodiversity” clearly stated that biological diversity is the hallmark of life on earth, and it can only be protected through the IPR laws, and it is through this law that the commercialization of seed development and

new plant varieties can be protected the article also describes the Indian legislations which deal up with the protection biodiversity through IPR national laws.

- K Venkataraman in the Article “ Intellectual Property Rights, Traditional knowledge and Biodiversity in India” states about the protection of biodiversity in terms of traditional knowledge and this article also tells the suggestion about how the government should do the budget allocations for the encouragement of the traditional knowledge for the protection of biodiversity resources the article also put some views on the issues and concern of protection of biodiversity and traditional knowledge.
- Ashish Kothari in the Article “Biodiversity, intellectual property rights: how to address the conflicts? This article examines the IPR rights in general in the areas of CBD and it also deals with the objective and relationship of the CBD and TRIPS agreement and how the two conventions separately deal with the IPR laws in their own manner.
- Catherine Monagle in the Article “Reviewing Intellectual Property Rights in Light of the Objectives of the Convention on Biological Diversity”¹ This article deals with the IPR and CBD and also about the TRIPS agreement and implementation of the agreement and also the key issues of TRIPS agreement about how the agreement affects the equitable sharing of resources and conservation and sustainable use of biological diversity.

INTRODUCTION :

Biodiversity includes all the plants and animal species even microorganisms like bacteria that makes our natural world each of these species and organism works together to maintain balance and support life. After the Stockholm conference, south Asian countries came to realize the importance of protecting the environment the Asian countries also came to an agreement that was the South Asia Cooperative Environment Programme to achieve sustainable development. According to WWF’s 2018 Living Planet Report states that there is a 60% decline in the population of mammals, fish, birds, and reptiles since the year 2017. The 2019 landmark Global Assessment Report also states the similar problems by the intergovernmental platform that animal and plant species are now threatened with extinction². According to the latest news on 8th, June 2021 India has lost 90% of the area under its biodiversity hotspots and twenty-five species have gone extinct. That’s how Intellectual Property Rights come into play which encourages the commercialization of seed development, monoculture, and protection of new plant varieties, microorganisms, and genetically modified organisms³.

DEFINITIONS :

¹ Center for International Environmental Law ;<https://www.ciel.org/reports/biodiversity-intellectual-property-rights-reviewing-intellectual-property-rights-in-light-of-the-objectives-of-the-convention-on-biological-diversity-world-wildlife-fundciel-gonzales-monagle-2/> (Last visited 2022-12-17)

² Science daily, https://www.sciencedaily.com/news/earth_climate/environmental_issues/ (last visited Oct 7, 2021).

³ Kothar A, Biodiversity and Intellectual Property Rights: can the two co-exist, Journal from Kalpavriksh, Environment Action Group 2, 1999, 3.

- 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 eco-systems⁴
- 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 do not include human genetic material.⁵

HISTORY AND EVOLUTION OF IPR:

The intellectual property simply includes inventions, innovative things, products of human creativity, and unique products that have a geographical attribute. Oxford University defines it as an intangible property that is the outcome of creativity. WIPO defines Intellectual Property as the creations of the mind, such as inventions, literary and artistic works designs and symbols, names, and images. The first step towards protecting biodiversity through IPR emerges from the United Kingdom they wanted to use high-quality seeds for agricultural production which slowly made companies sell the registered seeds, in turn, this led to the development of Breeders⁶ and different forms of protection given to new plant varieties. In 1930, the US Plant Act was also passed with respect to IPR to protect plant varieties⁷. There was also the convention called as International Convention for the Protection of New Varieties of Plants in 1978 and was amended in the year 1991 this convention focused on the protection to plant varieties and breeders and strengthened the monopolistic hold of plant breeders. US Supreme Court had also recognized microbiologist Ananda Chakrabarty's patent claim for genetically engineered bacterial strain the court allowed that something which is made by humans and not found in nature was patentable.⁸ But this right is only accepted by some countries however due to TRIPS this has been changed.

IPR AND BIODIVERSITY FROM AN INDIAN PERSPECTIVE:

In India, the IPR laws are centuries old as India is very rich in terms of biodiversity and is one of the 12 mega diversity centers and it contributes towards the world's biodiversity. There are 167 crop species and 320 species of wild crops. It has a rich and varied heritage it has a total of 850 species of bacteria, 6500 species of algae (aqua plant), and 14,500 species of fungi⁹. India has signed both the conventions that are Trade Related Intellectual Property Rights

⁴ Biodiversity Act, & 2, No.18, Act of Parliament, 2003 (India).

⁵ THE BIOLOGICAL DIVERSITY ACT, 2002 AND BIOLOGICAL DIVERSITY RULES, 2004; NBAINDIA; http://www.nbaindia.org/uploaded/act/BDACT_ENG.pdf/ (Last visited 2022-12-17)

⁶ Phyto Journal; E-ISSN: 2278-4136 P-ISSN: 2349-8234 www.phytojournal.com JPP 2021; Sp 10(2): 177-180 Received: 16-01-2021 Accepted: 18-02-2021 KM Manojkumar Advocate, Madurai Bar Association, Madurai District Court, Madurai, Tamil Nadu, India Dr. E Murugaesan Professor (SS), Government Law College, Madurai, Tamil Nadu, India. (Last Visited 02\12\2022)

⁷ Christopher May, the World Intellectual Property Organization and the Development Agenda, Vol.13, No. 2, 161-179 (2011).

⁸ CBD INT; <https://www.cbd.int/doc/articles/2002-/A-00308.pdf> . (Last Visited 02\12\2022)

⁹ National Policy and Macro level action strategy on biodiversity (Ministry of Environment and forest, government of India, New Delhi) 1994, 74.

Agreement and the Convention on Biological Diversity. India also passed the Biodiversity Act, of 2002 it was implemented under the National Biodiversity Authority (NBA) the act was introduced to conserve the rich biodiversity in the country. Sec 6 (1) of the biodiversity act says that no person can apply for Intellectual property by name or outside India which is based on research or information on a biological resource without obtaining approval. Section 55 of the act also imposes the penalties that contravene the provisions of the act with imprisonment for a term of 5 years it can also extend with a fine of ten lakh rupees and the fine can also increase according to the damage done¹⁰. India had also passed the Plant Protection Bill in compliance with the Budapest Treaty. It's the initiation of the protection of plant species and the protection of the right of farmers and plant breeders and also it encouraged the development and cultivation of new varieties.

PRACTICALITY OF THE INDIAN LEGISLATIONS:

In the Biodiversity act, there is a lack of clarity in the interpretation of certain definitions such as biological resources and commercial utilization there is also a lack of awareness on enforcement of the BD Act and companies do not follow the BD Act clauses properly, but NBA (National biodiversity authority) and SBA (State biodiversity boards) are currently sending the legal notice to the companies who are not complying with the statutes. According to Section 7 of the BD Act, it says no Indian person is permitted to obtain any Indian biological resource for commercial utilization without permission from SBBs (State biodiversity board) but there was a problem regarding this as SBs are legally permitted to set terms for Indian companies and the same was challenged by the Indian companies¹¹.

The recent case **Divya Pharmacy v. Union of India**, High Court of Uttarakhand, 2018¹². Swami Ramdev and Acharya Balkrishna owned the Divya Pharmacy have to pay around 0.1-0.5% of the annual sale of their products to Uttarakhand State Biodiversity Board and Uttarakhand High Court holds the view that despite being an Indian entity the pharmacy has to share its benefit. Uttarakhand SSB chairman Rakesh Shah also said that the company will soon sign the Access and Beneficiary Sharing agreement and give the money since 2014 which they were demanding. The Divya Pharmacy had contended that the act says the NBA is compulsory for persons who have foreign elements attached to them but for Indian entities section 7 only speaks of only prior intimation to be given to SBB and not to NBA simply the argument was that there was not any contribution which has to be given by Indian entity and its only for foreigners¹³. In the Judgement, the High Court of Uttarakhand said that the plain and textual interpretation defeats the purpose of the law and India is a signatory to various international treaties like Rio de Janeiro, Johannesburg declaration (2002), and Nagoya Protocol (2010) which makes no difference between a foreign entity and Indian entity as they have duties

¹⁰ Nishith Desai, Intellectual property Right in India, 12-67 (Nishith Desai associates 2015).

¹¹ Krishna Sauratri, Beware of the Indian Biological Diversity Act, 2002 Krishna S. BLOG (Oct. 24, 2022, 9:29 PM), <https://www.lexology.com/library/detail.aspx?g=1294c10e-82ad-471a-a010-371762810bd7>.

¹² Pharmacy v. Union of India, High Court of Uttarakhand, 2018

¹³ Divya Pharmacy v. Union of India, AIR 2018 SCC 1035.

towards local and indigenous communities. The court also stated that SBB has got the power to demand FEBS from the petitioner and it also made it clear that Divya Pharmacy has to pay its share. The judgment has touched on the seminal dimensions of biocultural rights and establishing community property rights for traditional knowledge of biological resources. It has the potential to develop a communitarian and diversity-related intellectual property system juxtaposed to trade-related aspects of intellectual property rights underpinned in the TRIPS Agreement, 1995. The novelty of this jurisprudence fortifies the powers, functions, and role of the NBA and the SSBs in establishing standard-setting parameters in ABS negotiations and bargaining to the benefit of the local communities under the Indian biodiversity laws.

THE RELATION BETWEEN IPR AND BIODIVERSITY: -

As in the current time, biodiversity is in danger, and without it, no human can survive which makes it paramount that it should be conserved and developed properly government took the initiative to protect biodiversity as it is an essence of life as commercial agriculture has increased which lead to the increase of genetic uniformity and hence, as a result, there is an increase in genetic erosion and there is where the protection of Intellectual property rights come to protect the rights. PVP (Plant Variety Protection) provides protection to the breeder in the form of (Plant breeder's Rights) PBRs¹⁴. A certificate of registration is issued under the act and the new variety plant must have novelty, distinctiveness, uniformity, and stability. The Plant varieties will not be registrable if the varieties have involved technology that is injurious to the life or health of humans and animals and also the variety is not listed in the notification mentioned by the central government. The duration of protection is 18 years for the trees and vines, 15 years for extant varieties, and other crops are 15 years from the date of registration¹⁵.

ISSUES:

The problem that the farmers are suffering from the Plant Variety plant is that according to Plant Variety act sec 14 (a) read with section 15(1) farmer needs to pay the registration fee of Rs. 7000 and a DUS test (Distinctiveness, Uniformity, Stability) fee of Rs. 2 Lakh which is mandatory to pay, and the registration is only 7 years and after expiration of that period he has to again pay the 7,000 thousand rupees for renewal hence in total the total payable amount is Rs. 2 or 3 Lakh rupees and no farmer can afford this. According to the reports between 2007-2018, there were only six applications for registration of a new variety plant and there was no information regarding the issuance of the registration certificate from the authority mentioned under the Act.

RED SANDERS CASE:

Red Sanders case is an important case that brought a change in the National Biodiversity authority, state board, and local communities for the benefit sharing of the resource. In this

¹⁴ Ashish Kothari, Biodiversity and Intellectual Property Rights: Can the Two Co-Exist?, JOURNAL OF INT'L WILDLIFE L & POL'Y (1999).

¹⁵ Agriculture and Genetic Resources-Integrating Intellectual Property Rights and Development policy (Report of the Commission on Intellectual property Rights, London) September 2002, 61.

case, the Andhra Pradesh government had conducted E- an auction for the sale of red sanders by the foreign bidders and Indian bidders the purchaser had to pay 5% to the state National biodiversity authority or state board and 95% of the benefit to be transferred to the Biodiversity Management Committee at the local level. This case raised the importance things about access and benefit sharing not only to the state but also to people by providing them a source of income and encouraging the people in the decision making and making them a part of the sustainable utilization of genetic resources. This case approach has changed the companies' way of utilizing genetic resources.

DIFFERENCES BETWEEN TRIPS AND CBD :

CONVENTION ON BIOLOGICAL DIVERSITY	TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY
<p>CBD is legally binding upon all the signatory countries to save biological diversity it came into force in the year 1993 and it is signed by 170 nations.</p>	<p>The TRIPs Agreement came into force on 1 January 1995, and it was implemented by all members of the WTO member states.</p>
<p>The obligations of the CBD include the:- - It recognizes the rights of biological resources of the sovereign states (Art. 3 and 15). The biological resources can only be used with the consent of the states. It also requires the equitable sharing of benefits.</p>	<p>TRIPs were designed to give rights to all technologies including pharmaceutical products and biological materials.</p>
<p>The objectives of the CBD are that biodiversity is not a gift of nature but a result of community activities. That the rights of local communities should be protected, and the programs and policies must be implemented to promote conservation and sustainable use. The most important area that the convention covers is that the indigenous and local community's rights should be protected and also the CBD recognizes the intrinsic value of communities it gives more</p>	<p>Trips must be implemented in developing countries by the year 2000. It also has similar dispute-solving procedures and if other member state doesn't comply with the terms it will result in trade retaliation.</p>

importance to the knowledge system rather than commercialization by corporations.	
The aim of the CBD is to conserve and sustain the use of biodiversity it provides the practical means for the local communities against the problem of privatization of biodiversity.	TRIP's is based on novelty whereas CBD is based on the pre-existing rights to biodiversity and associated knowledge. The preamble of the TRIP Agreement defines IPR as private rights and will give global jurisdiction to private individuals whereas the CBD gives the rights to indigenous and local communities ¹⁶
CBD provides legal protection to share benefits.	TRIPs don't provide this legal protection.
CBD protects the public interest and common good over private property.	TRIP'S is the exact opposite, and it works for the interest of the private property which is reflected in the TRIP'S agreement.

A multinational company PepsiCo had signed the benefit sharing agreement with the NBA (National Biodiversity Authority) for the export of Seaweed and paid Rs. 37 lakhs in 2007. The company paid the amount for accessing the genetic resources and the company had also come to an agreement with NBA to export the seaweed for commercial purposes in the food and cosmetics industry.

TRICEPS VS. CBD:

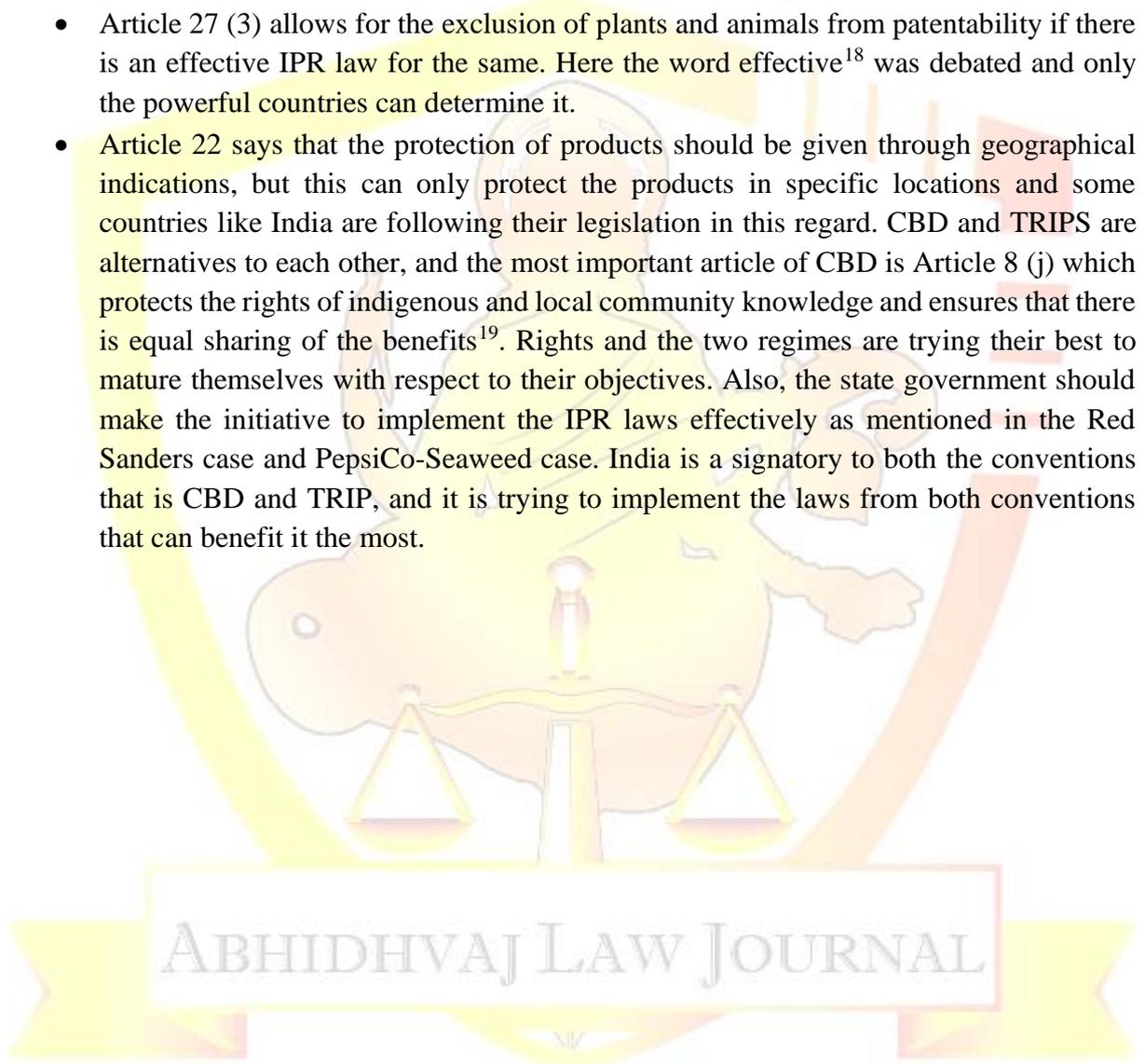
The full form of TRICEPS is Trade-Related Aspects of Intellectual Property Rights s it imposes Private intellectual property rights whereas the CBD (Convention on Biological Diversity) recognizes the collective rights of the local communities¹⁷.

¹⁶ See, BISWAJIT DHAR & SACHIN CHATURVEDI, Implications of the Regime of Intellectual Property Protection for Biodiversity: A Developing Country Perspective, paper presented at Workshop on Biodiversity Conservation and Intellectual Property Regime, RIS/Kalpavriksh/IUCN, New Delhi, (29-31 January, 1999); R.V.Anuradha, Between the CBD and the TRIPs: IPRs and What It Means for Local and Indigenous Communities, Paper presented at Workshop on Biodiversity Conservation and Intellectual Property Regimes, RIS/Kalpavriksh/IUCN, New Delhi, (29-31 January, 1999).

¹⁷ Ashish Kothari & R.V.Anuradha, Biodiversity, Intellectual Property Rights, and the GATT Agreement: How to Address the Conflicts? 43 ECON. & POL. WEEKLY 2814, (October 1997). Also in BIOPOLICY, Paper 4, PY97004, 1997, Online Journal, URL: <http://www.bdt.org.br/bioline/py>.

OPPORTUNITIES WITH TRIPS AND CBD:

- There are some provisions in the TRIP's agreement that can be used wrongly by countries to protect their interest against industrial commercial forces.
- Article 8 says the protection of public health and the public interest and environmental protection is not clearly defined in the section it can construe as a crucial aspect of public interest and its interpretation remains a debatable question.
- Article 27 (3) allows for the exclusion of plants and animals from patentability if there is an effective IPR law for the same. Here the word effective¹⁸ was debated and only the powerful countries can determine it.
- Article 22 says that the protection of products should be given through geographical indications, but this can only protect the products in specific locations and some countries like India are following their legislation in this regard. CBD and TRIPS are alternatives to each other, and the most important article of CBD is Article 8 (j) which protects the rights of indigenous and local community knowledge and ensures that there is equal sharing of the benefits¹⁹. Rights and the two regimes are trying their best to mature themselves with respect to their objectives. Also, the state government should make the initiative to implement the IPR laws effectively as mentioned in the Red Sanders case and PepsiCo-Seaweed case. India is a signatory to both the conventions that is CBD and TRIP, and it is trying to implement the laws from both conventions that can benefit it the most.



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¹⁸ DARELL POSEY, TRADITIONAL RESOURCE RIGHTS: INTERNATIONAL INSTRUMENTS FOR PROTECTION AND COMPENSATION FOR INDIGENOUS PEOPLES AND LOCAL COMMUNITIES (1996).

¹⁹ G.S. Nijar, In Defense of Indigenous Knowledge and Biodiversity: A Conceptual Framework and Essential Elements of a Rights Regime (1996).; GRAIN, towards a Biodiversity Community Rights Regime, Seedling 12(3), 2, (October 1997); V. Shiva, A.H. Jafri, G. Bedi, and R. Holla -Bhar, The Enclosure and Recovery of the Commons (1997).

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