
FROM CONSERVATION TO COMPLIANCE: A DEEP STUDY EVALUATING THE IMPACT AND CHALLENGES OF THE BIOLOGICAL DIVERSITY ACT, 2002

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ABSTRACT

The Biological Diversity Act, 2002 represents a landmark effort by India to align its environmental legal framework with international biodiversity commitments under the Convention on Biological Diversity (CBD). This paper critically examines the key provisions, implementation challenges, legal gaps, and landmark judicial decisions related to the Act. The law stresses protecting nature, using resources, and sharing benefits. Yet red tape legal snags, and management issues hold back its rollout at national, state, and local levels. The research digs into court cases to shed light on how people read the law and how it's enforced. It also looks at how the Act's Access and Benefit Sharing (ABS) rules work in real life. What's more, this paper puts the Act in context with basic laws and world legal standards giving us a glimpse of what's next for biodiversity management in India. The results show we need clearer laws more input from local folks' better teamwork between agencies, and stronger backup from institutions to help the Act reach its full world-changing potential.

Research Questions:

1. What are the key challenges in the implementation of the biological diversity act at the national and state level?
2. What are the legal gaps in the act & how can they be addressed to strengthen biological diversity governance?
3. What are the key cases where the biological diversity act has been enforcement, and what lessons can be learned for them?

Introduction

Biological diversity is often understood in terms of the wide variety of plants, animals and microorganisms, but it also includes genetic differences within each species — for example, between varieties of crops and breeds of livestock — and the variety of ecosystems (lakes, forest, deserts, agricultural landscapes) that host multiple kind of interactions among their members (humans, plants, animals).

Biological diversity resources are the pillars upon which we build civilizations.¹To prevent the exploitation of these resources, we need stringent and strong laws.

Prior to 2002, India did not have a comprehensive legal regime for governing access to its vast biological resources and the underlying traditional knowledge. But in the year 1994 India ratified the Convention on Biological Diversity (CBD) in 1994. India came to understand that it had to harmonize its legal regime with the treaty's aims, which centred on conservation, sustainable use, and fair and equitable benefit-sharing. To this effect, the Biological Diversity Act of 2002 was passed as landmark legislation.

The overall aim of the Act is to preserve biological diversity, manage access to genetic resources, and provide equitable and just distribution of benefits arising from their use. The Act provides for the establishment of the National Biodiversity Authority (NBA) at the national, State Biodiversity Boards (SBBs) at the state, and Biodiversity Management Committees (BMCs) at the local level. These bodies are mandated to manage the use of

¹ UN, 'International Day for Biological Diversity' (United Nations, 2024) <https://www.un.org/en/observances/biological-diversity-day> accessed 17 April 2025.

biological resources and traditional knowledge and encourage sustainable use. In addition, the Act restricts the access to India's biodiversity by foreign entities and offers legal protection against biopiracy. Through this mechanism, the Act aims to meet the requirements of conservation as well as economic development.

Overview of The Biological Diversity Act 2002

In the year 1992 India became a signatory to The Convention on Biological Diversity (CBD). The Convention on Biological Diversity is a convention Signed by 150 government leaders at the 1992 Rio Earth Summit, the Convention on Biological Diversity is dedicated to promoting sustainable development. Conceived as a practical tool for translating the principles of Agenda 21 into reality, the Convention recognizes that biological diversity is about more than plants, animals and microorganisms and their ecosystems – it is about people and our need for food security, medicines, fresh air and water, shelter, and a clean and healthy environment in which to live.²

In the year 2000 the Indian Government drafted a bill known as the Biodiversity Bill based on which The Biological Diversity Act was passed by Lok Sabha in the year 2002.

The Biological Diversity Act 2002 functions as a national legislation which protects biological diversity while establishing sustainable component use procedures and providing methods for fair benefit distribution from biological resource utilization. The government created this law to comply with the United Nation Convention on Biological Diversity (CBD) international agreement which targets biodiversity protection.

The section 8 of the Act creates National Biodiversity Authority (NBA). The NBA functions as the vital authority which evaluates all requests for biological resource and traditional knowledge access especially when this access involves commercial usage. Safeguarding indigenous knowledge and stopping bio-piracy requires immediate action through proper implementation of this provision.

Through its requirements the section 22 of the Act creates State Biodiversity Boards at the state level to advance biodiversity conservation whereas these boards serve as local entities for

² *Secretariat of the Convention on Biological Diversity, The Convention on Biological Diversity (CBD)* <https://www.cbd.int/convention> accessed 17 April 2025.

decision-making participation. The legislation introduces Biodiversity Management Committees (BMCs) for biodiversity conservation along with documentation efforts at the community level.

The legislation provides governance systems which regulate biological resources like plant life and animal and microbial organisms while distributing associated benefits between indigenous populations and local inhabitants who possess traditional knowledge of these resources. Access and Benefit Sharing (ABS) represents the practice covered by this term.

The Biological Diversity Act of 2002 serves as India's crucial law for biodiversity protection which manages biological richness through fair distribution and defence of native knowledge traditions.

Objectives of the Act

The Biological Diversity Act of 2002 established its primary purpose to safeguard India's abundance of biological diversity and achieve both ecological sustainability and ethical distribution of profit benefits from its utilization. The main targets of the Act encompass the following points:

- **Conservation of Biological Diversity**

According to the Act the government must protect various species together with ecosystems and genetic resources found across the country. The Act requires Central and State Governments to identify and notify both biodiversity-rich areas together with endangered species through Sections 36–38.

- **Sustainable Use of Biological Resources**

This acting body promotes sustainable practices to enable present-day biological resource utilization without reducing future access to these resources. A balanced approach links environmental management to economic development through this specific goal.

- **Fair and Equitable Sharing of Benefits**

As per Section 21 the Act establishes regulations for distributing benefits fairly after using

biological resources and traditional knowledge. Local communities along with other stakeholders receive benefit-sharing agreements through mutually established terms.

- **Regulation of Access to Biological Resources**

The National Biodiversity Authority must give prior approval to access biological resources and associated knowledge under the Act for prevention of biopiracy and misuse. Historical patent acquisition and commercial endeavors conducted without authorized permission remain totally banned under the regulatory framework.

- **Protection of Traditional Knowledge**

The enactment protects native knowledge systems of regional communities while allowing their access. The protective measures prevent anyone from misusing Indigenous knowledge without acceptable recognition while establishing appropriate benefit-sharing rules to support respect for cultural heritage.

- **Establishment of an Institutional Framework**

Three levels of implementation institutions exist under the Act to bring it into effect: the National Biodiversity Authority (NBA) together with State Biodiversity Boards (SBBs) and Biodiversity Management Committees (BMCs) which establish presence at local levels. Biodiversity governance requires the institutions to both monitor biodiversity while making policies and engaging with communities.

Key provisions of the Act

The Biological Diversity Act puts forth definitions, principles, appointed authorities, procedures, mechanisms for conservation, access benefits, etc, all related to biodiversity. It also mentions an institutional structure to be established for the same purpose.³

The key provisions of the act are as follows:

- Section 8 of the Biological Diversity Act, 2002 establishes the National Biodiversity

³ iPleaders, 'Overview of the Biological Diversity Act, 2002' (iPleaders, 10 January 2022) <https://blog.ipleaders.in/overview-biological-diversity-act-2002/> accessed 17 April 2025.

Authority (NBA) at national level for biodiversity conservation and management in India.

Section 8 (1) of the act says - *With effect from such date as the Central Government may, by notification in the Official Gazette, appoint, there shall be established by the Central Government for the purposes of this Act, a body to be called the National Biodiversity Authority.*

The Central Government officially notifies its creation, and the NBA functions as a legal entity with perpetual succession, allowing it to own property, enter contracts, and sue or be sued.⁴

- Section 22 of the act establishes the State Biodiversity Authority (SBA) at state level for biodiversity conservation and management in different states of India.
 1. Section 22 (1) of the act says - *With effect from such date as the State Government may, by notification in the Official Gazette, appoint in this behalf, there shall be established by that Government for the purposes of this Act, a Board for the State to be known as the _____ (name of the State) Biodiversity Board.*
 2. Section 22 (2) of the act says - *Notwithstanding anything contained in this section, no State Biodiversity Board shall be constituted for a Union territory and in relation to a Union territory, the National Biodiversity Authority shall exercise the powers and perform the functions of a State Biodiversity Board for that Union territory: Provided that in relation to any Union territory, the National Biodiversity Authority may delegate all or any of its powers or functions under this sub-section to such person or group of persons 2[or body] as the Central Government may specify.*

The State Government forms the board through official gazette publication. The National Biodiversity Authority (NBA) executes functions for Union Territories (UTs) without State Biodiversity Boards. The NBA can legally transfer powers to designated personnel for specified actions per the Central Government guidance.⁵

⁴ The Biological Diversity Act 2002, s 8

⁵ The Biological Diversity Act 2002, s 22

- Section 41 of the act requires local communities to establish Biodiversity Management Committees which perform biodiversity conservation along with documentation and sustainable utilization at the ground level. At the Gram Panchayat rural areas and Municipal urban areas BMCs function as committees that consist of a member range of 7 to 11 individuals while their formation follows directives set by the State Government.

Through their essential role BMCs help operate People's Biodiversity Registers (PBRs) by recording both local biological resources together with traditional knowledge. Any decision regarding biological resource use requires NBA and SBBs to consult BMCs. BMCs maintain a right to charge fees when permitting commercial access to biological resources which enables community-based benefit programs and local conservation initiatives.⁶

- Section 36 – 40 of the Act provides duties and functions of Central Government and State Government:

The Central Government creates national plans together with State Governments and Union Territories regarding biodiversity conservation and sustainable usage while promoting biodiversity resources. The authorities work to identify biodiversity-rich locations for surveillance while pursuing both in-situ and ex-situ preservation methods alongside research and educational backing and public ecological awareness initiatives. Through its power the government can order State Governments to execute swift responses following biodiversity threats or to incorporate biodiversity conservation elements into all sectoral policies.

The National Biodiversity Authority (NBA) alongside other designated organizations should enforce monitoring procedures for foreign biological resources inside India to fulfil international duties. The State Governments must establish biodiversity conservation plans that follow national strategies and should incorporate these plans in relevant sectoral policies whenever feasible.

The State Biodiversity Boards (SBBs) work together with community members to identify valuable biodiversity regions for becoming Biodiversity Heritage Sites (BHS)

⁶ The Biological Diversity Act 2002, s 41

through their recommendation process.

Section 37. Biodiversity heritage sites. — [(1) Without prejudice to any other law for the time being in force, based on the recommendations of the State Biodiversity Board, the State Government may, from time to time, notify in the Official Gazette, areas of biodiversity importance as biodiversity heritage sites under this Act.⁷

The Central Government possesses authority to establish lists containing threatened species and this notification allows for both collection limitations and preservation measures for these species. The government has authority to specify institutions that must serve as repositories to store new taxon discoveries throughout the country.

Section 39. Power of Central Government to designate repositories.—

(1) The Central Government may, in consultation with the National Biodiversity Authority, designate institutions as repositories under this Act for different categories of biological resources.

(2) The repositories shall keep in safe custody the biological material including voucher specimens deposited with them.

(3) Any new tax on discovered by any person shall be notified to the repositories or any institution designated for this purpose, and he shall deposit the voucher specimens with such repository or institution.⁸

Section 40 of the act states some provisions of the Act apply only to certain biological resources which include agricultural waste and cultivated medicinal plants yet follow government-issued regulations.⁹

Offences and Penalties

The Biological Diversity Act 2002 provides penalties for violation of the act. It also provides punishments and penalties for repeated offences.

⁷ The Biological Diversity Act 2002, s 37 (1)

⁸ The Biological Diversity Act 2002, s 39

⁹ The Biological Diversity Act 2002, s 40

- Section 55 of the act states biodiversity law violations will trigger monetary penalties between ₹1 lakh and ₹50 lakh but the fine can increase proportionately based on the severity of the damage. The additional monetary fine capped at ₹1 crore stems from continuous violations and must be determined by an authority through Section 55A when appointed as an adjudicating officer.¹⁰
- *55A. Adjudication of penalties. — (1) For the purposes of determining the penalties under section 55, the Central Government may appoint an officer not below the rank of Joint Secretary to the Government of India or a Secretary to the State Government to be the adjudicating officer, to hold inquiry in the prescribed manner and to impose the penalty so determined:*

Provided that the Central Government may appoint as many adjudicating officers as may be required.

The adjudicating officer performs inquiries alongside penalty decisions at minimum Joint Secretary level. People who disagree with an official decision may file an appeal at the National Green Tribunal (NGT) within sixty days according to Section 55A.¹¹

- Section 55B grants authority figures extensive law enforcement capabilities that let them perform entry examinations along with material confiscations while acquiring search orders and launching investigations which possess civil court-level authority.¹²
- Following orders issued by the Government of India, National Biodiversity Authority or State Biodiversity Boards becomes punishable by fines starting at ₹1 lakh and reaching ₹2 lakh per day for persistent noncompliance this is stated under Section 56 of the Act.¹³
- Section 57 of the Act says any violation of the Act by any company makes the company directors, managers and other officers personally accountable to bear penalties unless they demonstrate they took appropriate measures to stop the infringement.¹⁴

¹⁰ The Biological Diversity Act 2002, s 55

¹¹ The Biological Diversity Act 2002, s 55 A

¹² The Biological Diversity Act 2002, s 55 B

¹³ The Biological Diversity Act 2002, s 56

¹⁴ The Biological Diversity Act 2002, s 57

- The Act functions through parallel enforcement with other environmental-related legislations under Section 59. The regulations do not extend to people who obtained approval through plant protection laws as outlined in Section 59A.¹⁵
- Under Section 60 of the Act the Central Government reserves the power to issue enforcement commands to States.¹⁶
- For a court to handle an offence they need written complaints from governmental bodies or affected parties (Section 61).¹⁷

Implementation of the biological diversity Act at the National and State level

The Biological Diversity Act, 2002 was made to provide for the conservation of biological diversity, to facilitate its sustainable use, and for fair and equitable sharing of benefits arising from its use.¹⁸ Although it is a significant milestone in the field of environmental governance, its implementation at the national and state levels suffers from several key constraints.

1. Institutional and Administrative Challenges: At the national level, the NBA is often caught in the vicious web of being understaffed, short of funds, and lacking expertise needed for an effective discharge of its responsibilities. Coordination among the various ministries and departments is also not effective enough and delays matter further. Many states are rather slow in the formation and functioning of State Biodiversity Boards (SBB). Some SBBs do not have the required resources or autonomy so evidence of proper enactment of the law does not exist.

2. Weak Local-Level Implementation: The Act provides for the constitution of Biodiversity Management Committees (BMCs) in local bodies such as Panchayats and Municipalities. However, a large number of BMCs are inactive, are not being appropriately trained, and do not receive sufficient funding. The People's Biodiversity Registers (PBRs), which are to record all the local biodiversity, also appear incomplete, old, and not well maintained.

3. Low Awareness and Participation: Most local communities, industries, and even government officials are ill-informed about the Act and its provisions. This inevitably results in low public

¹⁵ The Biological Diversity Act 2002, s 59

¹⁶ The Biological Diversity Act 2002, s 60

¹⁷ The Biological Diversity Act 2002, s 61

¹⁸ 'Implementation of the Biological Diversity Act at the National and State Level' (Lawctopus Academike, 14 February 2015) <https://www.lawctopus.com/academike/biodiversity-act-2002-analysis> accessed 17 April 2025.

participation and, thus, weak compliance with the law.

4. Issues concerning Access and Benefit Sharing: The BDA is aimed at Access and Benefit Sharing (ABS), whereby the benefits derived of using biological resources are shared with the local community. However, most rules and procedures of ABS remain unclear. Industries sometimes make it hard to pay the benefit-sharing fees while there is scanty monitoring on how resources are accessed and used.

5. Poor Documentation and Data Gaps: Proper documentation on biodiversity becomes a basis for biodiversity conservation and benefit-sharing. While many places are still in need of such proper data, the existing PBRs have a varied standard, and there is little convergence between scientific research and local knowledge systems.

6. Problems with Development Projects: Conservation of biodiversity is often neglected in large-scale development activities such as mining, setting up infrastructure projects, and agriculture. Most environmental assessments pay less attention to biodiversity impacts, which further undermines the BDA.

However, before the Biological Diversity Act, 2002 can effectively safeguard India's vast natural heritage, a number of hurdles in its implementation must be overcome. - This will involve such steps as strengthening institutions, awareness generation, improved coordination, logistics, and funding. Aligning biodiversity goals to development policies will also be crucial for long term success.

Legal gaps in the Act

The formulation of the BD Act, 2002 nearly took a decade after the ratification of the Convention on Biological Diversity. Thus, it clearly demonstrates that the government officials, NGO's and academicians formulated the provisions after thorough research and consideration.¹⁹ Eventually with the enactment of the Biodiversity Rules under BD Act in 2004, there was an establishment of Biodiversity Management Committee which gave powers to the

¹⁹ INFLIBNET, *Conservation of Biodiversity: Biological Diversity Act, 2002 (e-PG Pathshala, Ministry of Education)* <https://ebooks.inflibnet.ac.in/geop08/chapter/conservation-of-biodiversity-biological-diversity-act-2002/> accessed 17 April 2025.

local and indigenous communities to voice out their opinion conservation, use and equitable sharing.

However, certain lacunas are still apparent in the Act. A major flaw is that this act does not give sufficient consideration to conservation; rather it lays more emphasis on preventing profit-sharing from the commercial use of the biological resources. It is true that the foundation of this act was laid to prevent bio-piracy by the developed nations. However, one cannot forget another major aim of this act i.e. to protect the biodiversity.

The Constitutional Viewpoint

Article 14 – Whether or not the classification meets the objectives of the Act

The Indian Constitution guarantees a set of Fundamental Rights to its citizens under Part III of the Constitution. Some of these fundamental rights are guaranteed to citizens and non-citizens as well. Article 21 and Article 14 are two of the fundamental rights guaranteed even to non-citizens. It is necessary to examine how Article 14 is violated by the Biodiversity Act, 2002. The act distinguishes citizens of India and other persons on the basis of citizenship and residential status. For any legislation to be intra vires Article 14 it has to pass two tests

1. The intelligible differentia test
2. The rational nexus with the objective of the act test

The intelligible differentia states that a classification in itself does not make the Act/action ultra-vires. An act becomes ultra-vires when the classification is not based on intelligible differentia. In the given act, the classification is based on both citizenship and residential status. Now after the classification test is passed the legislation should pass the test- that the classification must have a rational nexus with the objective of the act. The objective of this act are-conservation of biological diversity, sustainable use of resources and fair and equitable sharing of benefits arising out of utilization of genetic resources. The objectives that the act seeks to achieve and the classification of persons and other persons do not have a rational nexus with the objectives of this act i.e. to conserve of biological diversity.

Secondly, these provisions deter foreign joint ventures as well as collaboration with foreign scientists because of strict prohibition on even minor equity holdings in a company. It would

be impractical for a company holding thousands of shares to follow this procedure when only a minor portion of shares are held by other persons or corporations not based in India.²⁰ There should be restrictions when, the non-Indian shareholders are in a position to influence the decisions and management of the company in question, not otherwise.

Finally, the act assumes that resident citizens of India and corporations of India are never a threat to biodiversity. The main objective of the act is conservation of biodiversity and the legislators should bear in mind that even the Indian citizen residents and Indian corporations can be exploitative.²¹

Thus, the act has to grant approvals for access or IPRs keeping in mind the following considerations:

- Whether the said access comprehensively gives greater rights leading to the development of the holders of the traditional knowledge.
- Whether the said access is detrimental to biodiversity.

Key Cases

Divya Pharmacy v. Union of India & Others (2018)

Court: High Court of Uttarakhand

Case No.: Writ Petition (M/S) No. 3437 of 2016

Presiding Judge: Hon'ble Justice Sudhanshu Dhulia

• Factual Background

Divya Pharmacy which functioned under Divya Yog Mandir Trust together with Patanjali Ayurved's manufactured traditional and Ayurvedic medicines through biological resource procurement across Indian territories. UBB (Uttarakhand Biodiversity Board) through its

²⁰ Shamsuddin, 'The Biological Diversity Act 2002: Nature, Scope and Effectiveness' (2016) 1(10) *International Journal of Engineering Applied Sciences and Technology* 43-47 <https://www.ijeast.com/papers/43-47,Tesma110,IJEAST.pdf> accessed 17 April 2025.

²¹ Lawctopus, 'Biodiversity Act, 2002: Analysis' (Academike, 15 May 2015) <https://www.lawctopus.com/academike/biodiversity-act-2002-analysis/> accessed 17 April 2025.

notice demanded that Divya Pharmacy pay benefit-sharing payments as mandated by Section 7 of the Biological Diversity Act, 2002 combined with Rule 17 of the Biological Diversity Rules, 2004.

Through a writ petition Divya Pharmacy opposed the issued notice because Foreign people and organizations fell under the requirements of benefit-sharing according to the law, but Indian organizations received full exemption.

Using native biological resources for traditional purposes means the company met no requirement under the Act to qualify as an entity that would need to "access" biodiversity.

The UBB did not possess legal power to force domestic Indian companies to follow Access and Benefit Sharing (ABS) obligations.

- **Legal Issues Raised**

1. The Biological Diversity Act requires clarification regarding its application to Indian organizations that must follow ABS requirements.
2. The interpretation of "access" and "commercial utilization" under the Act.
3. The BDA established State Biodiversity Boards (SBBs) yet did not determine their exact authority to enforce its provisions.

- **Key Legal Findings**

The judicial authority of Uttarakhand dismissed this petition when it declared its support for the UBB. The Court's key findings included:

The BDA under Section 7 extends access requirements to any person including Indian companies and individual citizens. The Act maintains complete non-exclusion for Indian entities required to follow its rules.

Biological resource users must share fair benefits under the Act regardless of being domestic or international parties.

Any Indian company or domestic firm that utilizes biological resources for therapeutic product production must follow ABS requirements.

The Biodiversity Act enables State Biodiversity Boards to implement benefit-sharing rules and charge commercial users through their authorized enforcement powers.

- **Implications and Significance**

The court made its first interpretation of Sections 7 and 21 from the Biological Diversity Act during this case.

The court made it clear that Indian enterprises must follow ABS requirements without any exceptions.

The judgment provided both clarification and reinforcement regarding the authorization powers given to State Biodiversity Boards throughout all of India.

The laws established specific guidelines to enable proper application of BDA access and benefit-sharing provisions.

- **Lessons Learned**

Data shows that all Indian companies advancing biological resources need to follow BDA rules by sharing benefits from resource-based commercial operations.

According to this legal decision both Indian organizations and foreign entities must obtain biological resources access for their purposes.

Through this judgment SBBs received legitimization together with enhanced ABS requirements for proper enforcement.

Indian industries focusing on AYUSH and herbal medicine production should establish preventive compliance programs that follow biodiversity regulations.²²

²² Writ Petition (M/S) No. 3437 of 2016

Ruchi Soya Industries Ltd. v. Madhya Pradesh State Biodiversity Board & Others

Forum: National Green Tribunal (NGT), Central Zonal Bench, Bhopal

Case No.: Appeal No. 07/2013

- **Factual Background**

Ruchi Soya Industries Ltd. serves as India's largest edible oil manufacturer and soy-based food producer by processing soybeans that farmers delivered from Madhya Pradesh for commercial use. The Madhya Pradesh State Biodiversity Board through its MPSBB alerted Ruchi Soya Industries Ltd. for commercial use of biological resources without complying with Section 7 of the BDA and without prior benefit-sharing or notification.

The company disputed the notice through four main points which included the following:

Soybean belongs to the category of agricultural commodities that escapes ABS legal requirements.

The MPSBB did not have proper legal power to obtain benefit-sharing payments because the National Biodiversity Authority failed to create ABS guidelines.

The company obtained soybeans from farmers, so it failed to access biological resources in the way described in the Act.

- **Legal Issues Raised**

1. Soybeans cultivated through agriculture together with other crop species fall within the scope of biological resources protected by the BDA.

2. The commercial processing of agricultural commodities needs examination under Section 3(1)(y) of the BDA to determine if it counts as "commercial utilization".

3. The ability of State Biodiversity Boards to enforce ABS restrictions when national ABS guidelines stay pending completion.

- **Case Proceedings and Resolution**

The case entered the National Green Tribunal who then issued an interim order through which Ruchi Soya obtained protection against the MPSBB's request. The legal proceedings resulted in multiple key recognition points despite the court abstaining from delivering a merits-based ruling.

The State Biodiversity Boards maintain authorization to start ABS implementation procedures prior to issuing the national guidelines.

State Biodiversity Authorities now possess the power to control the use of domesticated biological resources together with native flora and fauna.

The NBA released ABS guidelines which led Ruchi Soya to fulfill its regulatory duties.

Implications and Significance

Biodiversity law application to agricultural commodities and cultivated plants remains vague according to this case.

The interpretation of commercial utilization expanded to include various manufacturing processes which handle biological materials regardless of their source from farmers.

The National Green Tribunal established SBBs as authorized bodies with enforcement powers according to the BDA during the legal proceedings.

- **Lessons Learned**

The BDA requires clarification about legal methods concerning agricultural products.

Standard ABS guidelines at the national level must be comprehensive because they create uniformity which minimizes interpretation discrepancies.

The NBA together with SBBs and agriculture departments needs to establish improved coordination systems.

Organizations must establish standard processes for keeping proper records which separate cultivated resources from those obtained in the wild since this recordkeeping enables compliance.²³

M/s Vishwanath Paper & Boards Ltd and Another v. State of Uttarakhand and Others

Court: High Court of Uttarakhand

Date of Judgment: June 2, 2016

Presiding Judge: Not specifically mentioned

Case Type: Writ Petition

- **Factual Background**

The paper manufacturing company M/s Vishwanath Paper & Boards Ltd and another petitioner utilized raw materials including bagasse together with rice husk and wheat straw and main raw material of wastepaper. The paper manufacturing sector mainly used materials from Uttar Pradesh and Bihar whereas the usage of products from Uttarakhand remained minimal.

Authorities from the Uttarakhand State Biodiversity Board (USBB) requested the petitioners under Sections 7 and 24 of the Biological Diversity Act, 2002 to disclose their usage of wastepaper as biological resources. Various issues were presented by petitioners as grounds for their objections to the notices issued by the Uttarakhand State Biodiversity Board.

According to the Act there is no basis to classify wastepaper as a biological resource.

The lack of rules made by the State Government under Section 63 resulted in invalidation of their issued notices.

The State Biodiversity Board issued notices about resource utilization from areas beyond Uttarakhand's jurisdiction making the petitions claim invalid.

²³ Appeal No. 07/2013

- **Legal Issues Raised**

The classification of wastepaper requires evaluation under the Biological Diversity Act, 2002 Section 2(c) as a biological resource.

The validity of notices issued by State Biodiversity Boards remained uncertain due to nonavailability of prescribed rules and forms as per Section 63 of the Act.

State Biodiversity Boards lack authority to obtain biological resource information acquired outside their established geographical boundaries.

Indian commercial users of biological resources need to comply with ABS requirements despite any procedural issues which may exist.

- **Key Legal Findings**

The Court established that writ petitions kept their validity since the National Green Tribunal did not have authority to handle the procedural complaints within this case.

The judicial decision neither confirmed nor denied the application scope of ABS Guidelines of 2014 to foreign entities as it exclusively focused on procedural inadequacies.

Wastepaper experienced judicial examination under Section 2(p) for its potential "value-added product" status as it could disqualify it from being classified as a biological resource. The court concluded without determining the precise outcome regarding this subject.

The SBB of Uttarakhand possesses jurisdiction to seek information about biological resources obtained from within the state boundaries.

The Court allowed the petitioners to present information requested under Section 63 based on their selected format provided the submission meets all substantial provisions of the Act despite State Government rules and forms remaining not notified.

- **Implications and Significance**

This case reinforced the idea that procedural requirements must be followed under the Biological Diversity Act during state-level enforcement responsibilities.

State Biodiversity Boards acquired limited authority under this decision by being unable to investigate biological resources that originated from states beyond their own.

State governments must notify appropriate rules and formats according to Section 63 to achieve proper implementation of the Act.

Regulated entities now have a practical approach to submit data they prepare on their own because official templates remain absent for certain obligations under the Act.

- **Lessons Learned**

State Biodiversity Boards need valid rules and forms established by the Act to conduct enforcement actions. Companies need detailed records which separate between state-bordering resources in order to validate compliance with specific state regulations. The Biological Diversity Act provides unclear definitions about what qualifies as “value-added products” within the wastepaper category.

Access and Benefit Sharing

Access and Benefit Sharing (ABS) is a crucial vision in biodiversity preservation, aiming to ensure the fair allocation of benefits by the utilization of genetic resources. The word ‘Access’ here means accessibility of resources by states and ‘Benefit Sharing’ means fair sharing of these resources which benefits everyone.

Access and Benefit Sharing (ABS) was established in the 1992 Convention on Biological Diversity (CBD) and then reinforced by 2010 Nagoya Protocol, ABS frameworks seeking to equalize the rights of resource-rich developing nations with the interests of technologically advanced countries.

The process of Access and Benefit Sharing involves –

- Prior informed consent (PIC): is the permission given by the competent national authority of a provider country to a user prior to accessing genetic resources, in line

with an appropriate national legal and institutional framework.²⁴

- Mutually agreed terms (MAT): is an agreement reached between the providers of genetic resources and users on the conditions of access and use of the resources, and the benefits to be shared between both parties.²⁵

The above-mentioned conditions are mentioned under Article 15 of the 1992 Convention on Biological Diversity (CBD), which was adopted in 1992 and provides a global set of principles for access to genetic resources, as well as the fair and equitable distribution of the benefits that result from their use.²⁶

In India Access and Benefit Sharing (ABS) came into picture when it made efforts to achieve the objectives of the Convention on Biological Diversity (CBD), the Government of India enacted the Biological Diversity Act in 2002. The National Biodiversity Authority (NBA), the State Biodiversity Boards (SBBs) and the Biodiversity Management Committees (BMCs) were established under this act and they oversee the implementation of the Act and Rules at national, state and local levels respectively. India's engagement with Access and Benefit Sharing (ABS) issues has been progressive and noteworthy. One of the best practice examples, cited globally, on implementation of ABS provisions and principles emanated from India through the Kani tribe and their traditional knowledge relating to the use of a plant called Arogyapacha (*Trichopus zeylanicus*), a highly potent medicinal plant endemic to the Agasthya hills here the local communities were recognized and rewarded for providing the genetic resource and associated traditional knowledge that resulted in commercialization of a drug with anti-fatigue properties called 'Jeevani'.²⁷ This experience of ABS pre-dates the entry into force of the CBD. The implementation of the Act and Rules in India with a focus on ABS issues receives much attention now. During the past few years, the NBA has put a robust and responsive ABS system in place which is being refined and made user-friendly on a regular basis.

²⁴ Secretariat of the Convention on Biological Diversity, *What is Access and Benefit-sharing?* (Convention on Biological Diversity 2012) <https://www.cbd.int/abs/infokit/brochure-en.pdf> accessed 17 April 2025.

²⁵ Anne-Julie Rochette and others, *Frequently Asked Questions about Access and Benefit-Sharing, the Nagoya Protocol, and Implications for Researchers: Background Document for the Information Session on Implications of the Nagoya Protocol for Taxonomic Collections*

²⁶ Royal Museum for Central Africa (RMCA), 08 June 2015 (CEBioS 2015) <http://iprstudio.com/access-to-genetic-resources-and-benefit-sharing/> accessed 17 April 2025.

²⁷ National Biodiversity Authority, *Draft Access Guidelines issued under section 18(1) of the Biological Diversity Act 2002* (NBA, Chennai) <www.nbaindia.org> accessed 17 April 2025.

In recent years India has entered into approximately one hundred ABS agreements to date

ABS agreements under the Biological Diversity Act are divided into four categories.

Each of these categories necessitates the completion of four forms.²⁸

They are:

1. Form 1 which deals with direct access to biological resources and/ or associated traditional knowledge;
2. Form 2 which deals with the transfer of research results relating to biological resources from India;
3. Form 3 which deals with applications for intellectual property rights; and
4. Form 4 which deals with transfer of biological resources and/or associated traditional knowledge to third parties by individuals/entities who have accessed these resources and knowledge through Form 1.

Alignment of the act with foreign conventions

The Biological Diversity Act of 2002 emerged as a national legislation stemming from the Convention on Biological Diversity to establish Indian participation in worldwide efforts toward biological resource conservation. The Act supports all three CBD objectives because it promotes biodiversity conservation together with the responsible use of biological components and equal distribution of benefits from biological resource utilization.

A. Conservation of Biological Diversity

The legislation supports natural habitat conservation efforts while simultaneously supporting research programs that use botanical gardens and gene banks for outside-habitat conservation. Through these provisions the Act helps government bodies locate and announce the protection status of areas that hold significant ecological and cultural value.

²⁸ IGNFA, *Biodiversity Cell-NTFP Related Issues* (Indian Institute of Forest Management, 2025) <https://www.ignfa.gov.in/document/biodiversity-cell-ntfp-related-issues1.pdf> accessed 17 April 2025.

The Act features decentralization of biodiversity governance as one of its central characteristics. Under the directive all communities need to form Biodiversity Management Committees that will lead conservation activities within their geographical area. Local committees serve two main functions under the Act by developing People's Biodiversity Registers that document both biological resources and traditional knowledge systems of the community. Through this method both biodiversity conservation receives backing and local communities earn full status as environmental stewards.

Traditional knowledge possessed by indigenous and local communities receives recognition from the Act. Through combined conservation planning the Act establishes ways for preserving cultural heritage and strengthens traditional environmental stewardship by community members.

B. Sustainable Use of Biological Resources

The Act creates rules which establish procedures for maintaining responsible use of biological resources through sustainable harvesting in eco-friendly ways. The Act establishes a regulatory system which monitors commercial biological resource utilization because it aims to stop destructive practices in resource management.

The act incorporates traditional and local understandings as essential components for managing natural resources. Traditional methods including cooperative forest management and sequence-based timber extraction and preservation of holy woodlands receive acknowledgment as essential sustainability tools by the Act. The resource management approach through integration enables sustainable ecological preservation in addition to preserving income sources for local population dependent on natural resources.

C. Fair and Equitable Sharing of Benefits (Access and Benefit-Sharing - ABS)

Among its innovative aspects the Act contains an Access and Benefit-Sharing (ABS) mechanism which stands out as one of its most forward-thinking features. Organizations and individuals who want to access biological resources and connected intellectual property need approval from the National Biodiversity Authority before starting their projects. The resource

user must pay a portion of the benefits they gain both monetarily and non-monetary benefits to the communities which kept these resources safeguarded.²⁹

By enabling access to benefits-sharing communities obtain recognition along with financial or non-financial returns for their contributions and stewardship. Through this mechanism biodiversity use remains ethical and transparent. The Act maintains alignment with the Nagoya Protocol which establishes India as a dutiful member-state in global biodiversity governance systems.

Indian businesses became subject to ABS regulations when a court confirmed that these mandates also applied to their operations. Benefit-sharing responsibilities now extend universally beyond foreign businesses therefore local biodiversity protectors should receive fair compensation.

Impacts and challenges:

India places itself among the 17 mega-diverse nations worldwide because it embraces numerous ecosystems together with many species and genetic resources within its borders. The Indian Government passed the Biological Diversity Act of 2002 because of its obligations under the Convention on Biological Diversity (CBD) to protect its abundant biological resources. Since its establishment as a pioneering legislation for biodiversity protection the BDA maintains various operational challenges and structural problems. The paper analyzes the Biological Diversity Act of 2002 by evaluating both its beneficial features and its weak points alongside the obstacles during implementation.

Positive Impacts of the Biological Diversity Act, 2002

1. Conservation of Biodiversity

Through the BDA organizations practice both on-site and off-site biological resource protection measures. Traditional ecological knowledge together with practices gets documented through the establishment of Biodiversity Management Committees (BMCs) and People's Biodiversity Registers (PBRs). The Biological Diversity Act supports existing ecosystem conservation

²⁹ 'The Nagoya Protocol and Access and Benefit Sharing (ABS): Responsibilities for Users of Biological Resources' (Medium, 19 November 2019) <https://medium.com/%40ResearchFeatures/the-nagoya-protocol-and-access-and-benefit-sharing-abs-responsibilities-for-users-of-biological-9e12a148dd2a> accessed 17 April 2025.

practices because it serves to safeguard endangered species and delicate natural habitats as per other ecological regulations.

2. Regulation of Access and Prevention of Biopiracy

One important outcome of the BDA consists of its governance framework which sets limitations on foreign organizations accessing Indian biological resources alongside traditional knowledge bases. Prior approval alongside benefit-sharing agreements exist within this legislation to stop unauthorized resource exploitation while guaranteeing profits from resource usage disperses to community members together with national interests.

3. Fair and Equitable Benefit Sharing

The legislation presents a system to distribute monetary benefits that develop from using biological resources between local communities and indigenous peoples. Under this measure traditional knowledge holders receive compensation by means of Access and Benefit Sharing arrangements which the National Biodiversity Authority (NBA) helps establish.

4. Community Participation and Local Governance

Through the BDA local governments gain power because it introduces BMCs to both Gram Panchayats and Municipalities. The decentralized authority structure leads to enhanced people's participation in biodiversity preservation and enables them to monitor resources.

5. Strengthening the Legal Framework

The Act acts as a legal mechanism to protect natural resources from illegal uses by helping to create environmental jurisprudence throughout India. This legislation supports the existing environmental and forest laws to enhance the country's conservation regulatory framework.

Challenges and Lacunae in the Biological Diversity Act, 2002

1. Traditional Knowledge systems together with community rights face no protection under this legislation.

The Act fails to enforce protection of communal intellectual property rights even though it acknowledges traditional knowledge. Most traditional safeguarding approaches and

indigenous techniques for resource stewardship have weak protections because they are owned by communities. Biodiversity lacks adequate legal representation of collective ownership rights and cultural values related to biodiversity.

2. Limited Role and Capacity of BMCs

BMCs were intended to provide power to local communities but most of them function only as administrators preparing PBRs. The valuable documentation in these registers faces a problem because no legal protection exists which leaves recorded knowledge exposed to unauthorized use. BMCs fail to reach optimal operation because of inadequate training and funding together with insufficient institutional support.

3. Centralized Resource Governance

Through this approach the Act grants multiple functional powers to both the National Biodiversity Authority and State Biodiversity Boards. The bureaucratic structure of the Act jeopardizes the local administrative framework that the 73rd and 74th Constitutional Amendments promote through their provisions on decentralization. Traditional knowledge holders along with grassroots communities' experience marginalization when decision-making occurs for biodiversity governance.

4. Vagueness in Legal Protections and Enforcement

The Act shows unclear meaning when it addresses traditional knowledge systems along with local methods. A strong system exists neither to protect community intellectual property rights nor to address biopiracy. At present the NBA has weak enforcement capabilities when it comes to patenting of Indian resources across international borders because they lack the necessary power to exercise extraterritorial jurisdiction.

5. The Act produces conflicts with essential rights of citizens while duplicate regulations from various jurisdictions exist simultaneously.

Indian citizens and domestic residents might face potential discrimination against their fundamental rights granted by Article 14 and Article 21 of the Constitution. The law functions by itself with minimal coordination between the Forest Rights Act (2006) and Forest Conservation Act (1980) as well as Intellectual Property Rights (IPR) provisions. The

conflicting laws generate problems in understanding and difficulties with enforcement practices.

6. Low Awareness and Stakeholder Engagement

Local stakeholders along with community members fail to achieve effective implementation mainly because they lack proper awareness. Many remain unaware of their rights and responsibilities under the Act. The current programs for capacity development and stakeholder outreach campaigns have limited geographical spread and limited impact on the target population.

7. Corporate Resistance and Non-Compliance

Pharmaceutical companies along with science-based businesses frequently avoid compliance due to complicated administrative processes and cost considerations that they perceive. The opposition to ABS procedures by businesses creates obstacles that threaten the ABS system and makes it difficult to provide appropriate economic benefits to affected local communities.

8. Inadequate Monitoring and Financial Support

The BDA monitoring and enforcement systems demonstrate weak capacity to implement their objectives. The National Biodiversity Authority struggles to properly enforce its laws because of insufficient power and funding for following biodiversity regulations in situations where national borders matter. The functioning of both BMCs and PBRs suffers from insufficient funding sources which impacts the grassroots efforts to document and protect biodiversity in local areas.

Comparative and Future perspective

India established the Biological Diversity Act of 2002 as a rigorous legislative framework to protect both indigenous and foreign biological resources which echoes the CBD together with the Nagoya Protocol framework. Unlike Brazil's biodiversity law which incorporates ABS principles and DSI concepts for digital sequence information and more severe penalties consistent with recent genetic technologies advances. The ABS regulation of the European Union only applies to EU-based activities while it focuses on genetic resource utilization instead of actual access permissions. Philippines maintains community-led ABS controls

through its legal system yet the United States operates without ABS legislation because it has only disjointed sectoral rules.

Biodiversity management in India will build its foundation at community scales through BMC empowerment as well as better storage and protection of indigenous intellectual property. The global discussion about digital sequence information (DSI) requires India to review its legal structure because benefit sharing issues are becoming complex. The urgent demand exists to unite climate change adaptation and mitigation strategies with biodiversity conservation using ecosystem-based solutions. Business entities will need additional clarity regarding biological resource usage for research and commercial purposes as their participation in these activities expands. Indian companies receive simpler compliance measures according to Act amendments while community rights and environmental safeguards face potential weakening because of these changes. Interest in the Wildlife Protection Act of India will depend on maintaining a balanced approach which addresses community involvement and environmental conservation alongside each other.

Conclusion:

The Biological Diversity Act of 2002 creates a detailed plan to protect India's rich and special natural world. This law sets up clear rules to help save plants and animals, control who can use them, and make sure everyone gets a fair share of the benefits. It fits with what India wants to do and what the world expects for the environment. But the Act hasn't worked as well as it should because of many problems. These include slow-moving government offices unclear legal language, not enough people knowing about it, and local communities not being involved much. Judges have explained some parts of the law, but it's still not used the same way everywhere. Also, the Act's tough rules for foreign groups, not giving enough credit to what local communities know, and not working well with other environment laws have caused issues with the constitution and other policies. To make the Act work better, we need to do several things. We should fix unclear parts, make paperwork easier, give more power to local groups, and make it easier for people to see and join in when deciding how to share benefits. In the future, we need to make sure the Act keeps up with new global ideas like digital sequence information (DSI) and ways of looking after whole ecosystems. This will help make sure that saving India's plants and animals includes everyone and can last a long time.