India's ABS Success Story

Advancing the Goals *of the* Convention *on* Biological Diversity

2026

India’s ABS Success Story: Advancing the Goals of the Convention on Biological Diversity

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Message



India, as a mega biodiverse country and a Party to the Convention on Biological Diversity (CBD), recognises its rich biological diversity as a valuable national asset that sustains livelihoods, strengthens ecological resilience, and supports the well-being of millions. The Biological Diversity Act 2002, as amended in 2023, and India's Access and Benefit Sharing (ABS) framework reflect our commitment to conserving this natural heritage and ensuring the fair and equitable sharing of benefits arising from the utilization of biological resources with local communities whose knowledge and traditions have contributed to their conservation over generations.

This book chronicles India's journey in implementing ABS, highlighting the achievements, innovations, and lessons emerging from collaborative efforts of government agencies, private institutions, researchers, industry, and local communities. The progress made demonstrates that conservation and sustainable development can advance hand in hand when guided by principles of equity, transparency, and shared responsibility.

Biodiversity conservation requires collective action, responsible utilisation of biological resources, and recognition of the contributions of communities that safeguard nature. Enhancing awareness, strengthening institutional capacities and promoting stakeholder participation are essential to advancing equitable benefit sharing and ensuring that biodiversity contributes to sustainable development and the well-being of current and future generations.

As India continues to champion biodiversity conservation and the sustainable use of biological resources, its ABS framework serves as a powerful instrument for empowering local communities, strengthening biodiversity stewardship, and promoting inclusive growth. I am confident that this publication will serve as a valuable reference for policymakers, practitioners, researchers, and all those committed to advancing biodiversity conservation and the fair and equitable sharing of benefits arising from the utilization of biological resources.

I congratulate all those who have contributed to this important endeavor and wish the publication wide readership and success.

Bhupender Yadav
Union Minister for Environment,
Forest and Climate Change
Government of India

Message



India’s biodiversity is a source of immense ecological, cultural, and economic value. The Access and Benefit Sharing (ABS) framework under the Biological Diversity Act, 2002, as amended in 2023, reflects our nation’s commitment to ensuring that the benefits derived from the utilisation of biological resources are shared fairly and equitably with the communities that have conserved and sustainably used these resources over generations. The institutional framework, comprising the National Biodiversity Authority at the national level, State Biodiversity Boards at the State level, and Biodiversity Management Committees at the local level, supports the implementation of the ABS and facilitates the fair and equitable sharing of benefits with local communities and other benefit claimers.

This publication documents the progress made in implementing ABS across the country. It highlights the collective efforts of the National Biodiversity Authority, State Biodiversity Boards, Biodiversity Management Committees, local communities, researchers, and industry partners in translating the principles of fair and equitable benefit-sharing into practice.

India has developed an extensive institutional and regulatory framework for operationalising ABS, demonstrating how an effective legal and institutional framework can translate the principles of fair and equitable benefit-sharing into tangible outcomes for biodiversity conservation and community welfare. India’s experience offers valuable lessons for strengthening ABS implementation and advancing biodiversity governance globally.

The experiences documented in this book demonstrate that ABS is not only a regulatory mechanism, but also an important instrument for supporting biodiversity conservation, strengthening local institutions, improving livelihoods, and promoting sustainable development. As India advances towards its biodiversity and sustainability goals, the insights and experiences presented in this publication will serve as valuable guidance for future initiatives.

I commend all those who have contributed to this important work. I am confident that this publication will encourage continued efforts to conserve India’s rich biological heritage and ensure the fair and equitable sharing of benefits arising from its utilisation.

Kirti Vardhan Singh
Minister of State for Environment,
Forest and Climate Change
Government of India

Message



The successful implementation of Access and Benefit Sharing (ABS) in India reflects our collective commitment to biodiversity conservation, the sustainable use of biological resources, and the fair and equitable sharing of benefits with local communities. These principles, enshrined in the Biological Diversity Act, 2002, as amended in 2023 are integral to India's efforts to conserve its rich biological heritage while ensuring that local communities and other benefit claimers receive a fair and equitable arising from the utilisation of biological resources.

This publication documents the progress made in implementing ABS across the country and highlights key achievements, experiences, and initiatives undertaken Ministry of Environment, Forest and climate Change (MoEFCC), the National Biodiversity Authority, State Biodiversity Boards, Biodiversity Management Committees, and other stakeholders in advancing the objectives of the Biological Diversity Act. The experiences and achievements documented herein demonstrate how ABS can serve as an effective instrument for promoting biodiversity conservation and empowering local communities.

India's experience in operationalising ABS offers valuable lessons for the global community on translating the principles of fair and equitable benefit sharing into effective national implementation. The country's legal and institutional framework demonstrates the importance of coordinated action, stakeholder participation and community engagement in integrating biodiversity conservation with sustainable development. These experiences can inform efforts by other countries to strengthen ABS implementation in accordance with their national circumstances and priorities.

I congratulate all those who have to this valuable publication and trust that it will serve as a useful reference for policymakers, practitioners, researchers, and all those engaged in biodiversity governance.



Narendra Bhooshan, IAS
Secretary
Ministry of Environment, Forest and Climate Change
Government of India

Message



The implementation of Access and Benefit Sharing in India has evolved progressively through a well-defined legal, policy and institutional framework. Guided by the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization under the Convention on Biological Diversity, India has continued to strengthen its approach to implementing the principles of fair and equitable benefit-sharing arising from the utilisation of biological resources and associated traditional knowledge.

As a megadiverse country, India recognises the importance of translating these principles into effective action at the national and local levels. The experience gained through the implementation of the Biological Diversity Act, 2002, as amended in 2023 and its evolving regulatory framework has helped strengthen administrative processes, improving coordination among implementing authorities, and enhancing stakeholder engagement.

India's experience also underscores the importance of adaptive governance, continuous learning and context-specific approaches in addressing the practical challenges of ABS implementation. Sustained efforts to raise awareness, streamline procedures and build implementation capacities remain essential to ensuring consistent and effective implementation across diverse sectors and regions.

This book presents a visual account of India's ABS journey through case studies and experiences drawn from Biodiversity Management Committees (BMCs) across the country. These accounts illustrate how ABS is being translated into action on the ground and document the diverse approaches adopted to advance biodiversity conservation and benefit sharing at the local level.

I would like to express my sincere appreciation to the officials of the Ministry of Environment, Forest and Climate Change (MoEFCC) and the National Biodiversity Authority (NBA) for their dedicated efforts in preparing this illustrated publication.

I am confident that it will help disseminate India's experiences and valuable lessons and deepen understanding of ABS among a wider range of stakeholders.

Ashutosh Agnihotri, IAS
Additional Secretary
Ministry of Environment, Forest
and Climate Change
Government of India

Message



The Biological Diversity Act, 2002, established a robust framework for Access and Benefit Sharing, reflecting the principles of the Convention on Biological Diversity and the Nagoya Protocol. ABS recognises the contributions of local communities in conserving biological resources and associated traditional knowledge while promoting equitable sharing of benefits arising from their utilisation.

India has made significant progress in ABS implementation, with approximately INR 278 crore (USD 29.23 million) collected and INR 202.01 crore (USD 21.11 million) released to the beneficiaries. The Sub-National Governments (SBBs/ UTBCs) collected the ABS amount of INR 51.93 crore(USD 5.46 million) from the domestic users. These achievements reflect the collective efforts of the National Biodiversity Authority, State Biodiversity Boards, Biodiversity Management Committees and other stakeholders in translating the principles of equity and conservation into tangible benefits for local communities and other benefit claimers.

This publication highlights India's progress in ABS and its contribution to biodiversity conservation, sustainable livelihoods, institutional strengthening and inclusive development. As India advances its commitments under the Convention on Biological Diversity and the target 13 of the Kunming–Montreal Global Biodiversity Framework, effective ABS implementation will remain vital to ensuring that biodiversity conservation and community welfare advance together.

As we stand at a critical juncture in global efforts to halt biodiversity loss and advance sustainable development, the importance of ensuring fair and equitable sharing of benefits has never been greater.

I hope that this publication will serve as a useful resource for policymakers, administrators, researchers, industry stakeholders, students, and biodiversity practitioners. More importantly, I hope it will inspire continued commitment towards building an inclusive and effective ABS framework that benefits both people and nature.

I thank Dr Jayshree Vencatesan and Anjana Vencatesan of Care Earth Trust for their efforts in curating this publication. I also thank K Satheesh and P Anandhakumar of the NBA for their contribution to the preparation of this important publication. Let us continue to work together to ensure that India's biological wealth remains conserved, sustainably utilized, and equitably shared for the benefit of present and future generations.

Virendra R Tiwari, IFS (Retd.)
Chairperson
National Biodiversity Authority
Government of India



Group of women resting, as cattle grazes in background
Credit: Uttarakhand SBB

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List of Abbreviations

ABS	Access and Benefit Sharing
ABS CH	Access and Benefit Sharing Clearing House
ABS Regulation, 2014	Guidelines on Access to Biological Resources and Associated Knowledge and Benefit Sharing Regulations, 2014.
ABS Regulation, 2025	Biological Diversity (Access to Biological Resources and Knowledge Associated thereto and Fair and Equitable Sharing of Benefits) Regulations, 2025
ASBB	Assam State Biodiversity Board
ASEAN	Association of Southeast Asian Nations
AYUSH	Ayurveda, Yoga, Naturopathy, Unani, Siddha and Homoeopathy
BD Act	Biological Diversity Act, 2002
BD Rules, 2004	Biological Diversity Rules, 2004
BD Rules, 2024	Biological Diversity Rules, 2024
BHS	Biodiversity Heritage Sites
BIOFIN	Biodiversity Finance Initiative
BMC	Biodiversity Management Committee
CAMPA	Compensatory Afforestation Fund Management and Planning Authority
CBD	Convention on Biological Diversity
COP	Conference of the Parties
COP-10	10th Meeting of the Conference of the Parties to CBD
COP-15	15th Meeting of the Conference of the Parties to CBD
COP-16	16th Meeting of the Conference of the Parties to CBD
CSIR	Council of Scientific and Industrial Research
CSIR-IIIM	CSIR – Indian Institute of Integrative Medicine
CSR	Corporate Social Responsibility
DGFT	Directorate General of Foreign Trade
DSI	Digital Sequence Information
FICCI	Federation of Indian Chambers of Commerce and Industry
FMCG	Fast-Moving Consumer Goods

FSII	Federation of Seed Industry of India
GEF	Global Environment Facility
GIA	Grant-in-Aid
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IOCL	Indian Oil Corporation Limited
IPR	Intellectual Property Rights
JFMCs	Joint Forest Management Committees
KMGBF	Kunming-Montreal Global Biodiversity Framework
LMO	Living Modified Organisms
MAT	Mutually Agreed Terms
MoEFCC	Ministry of Environment, Forest and Climate Change
NBA	National Biodiversity Authority
NBF	National Biodiversity Fund
NBSAP	National Biodiversity Strategy and Action Plan
NMC	Non-Monetary Compensation
NR1	First National Report
NSAI	National Seeds Association of India
NTFPs	Non-Timber Forest Products
PBR	People's Biodiversity Register
PIC	Prior Informed Consent
SBBs	State Biodiversity Boards
SBF	State Biodiversity Fund
SBI	Subsidiary Body on Implementation
SCBD	Secretariat of the Convention on Biological Diversity
TBB	Tripura Biodiversity Board
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UTBCs	Union Territory Biodiversity Councils

01

The Cornerstone: Convention *on* Biological Diversity

Convention *on* Biological Diversity

The Convention on Biological Diversity (CBD) marks a historic commitment. It is a commitment by the nations of the world to conserve biological diversity, to use biological resources sustainably and to share equitably the benefits arising from the use of genetic resources. It is the first global agreement to address comprehensively all aspects of biological diversity—genetic resources, species and ecosystems (Glowka, L et al , 1994)[1]

The Convention entered into force on 29 December 1993, a bare eighteen months after it was opened for signature at the 1992 United Nations Conference on Environment and Development in Rio de Janeiro.

*1 Glowka, L, et al.,(1994), A Guide to the Convention on Biological Diversity, IUCN Gland and Cambridge. xii + 161pp. 2nd printing 1996**



Prickly Water Lily (Euryale ferox), harvested for Makhana

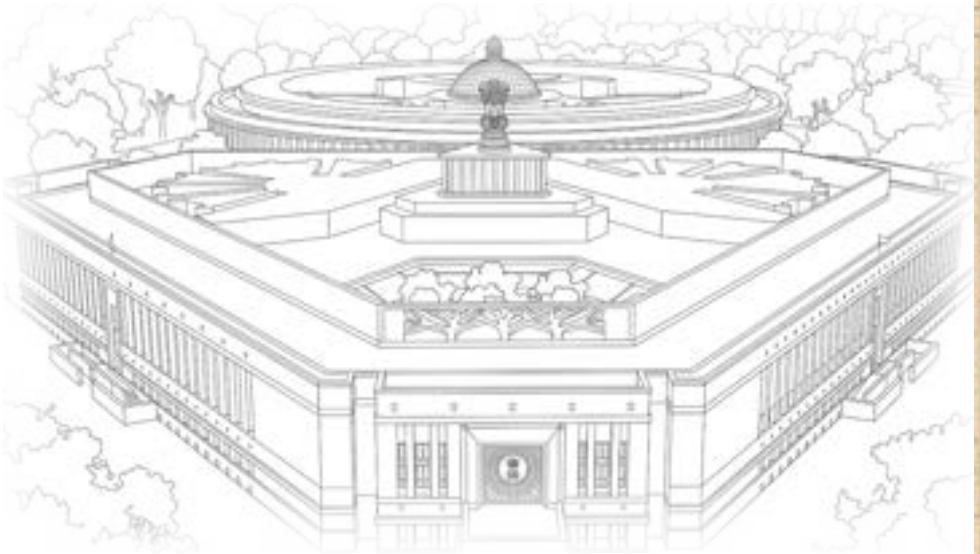
India *and* the CBD

As one of the early signatories of the Convention, India reiterated its ethical cornerstone which is reflected by the verse *'Vasudhaiva Kutumbakam'* (Maha Upanishad - ancient Sanskrit treatise) meaning — "the world is one family," and this underscores the interdependence of all living beings and affirms that the well-being of humanity is inseparably linked to the health of the natural world.

Within the ethos of Vasudhaiva Kutumbakam, conservation is elevated beyond a scientific imperative to a moral and cultural responsibility.

It emphasizes that safeguarding ecosystems is not merely an act of preservation but a recognition of kinship across species and generations. Biodiversity must be approached as a shared heritage, where ecological stewardship ensures the continuity of life and sustains the integrity of the global family.

The Convention on Biological Diversity is a framework agreement in two senses. In the first sense, it leaves it up to individual Parties to determine how most of its provisions are to be implemented. This is because its provisions are mostly expressed as overall goals and policies, rather than as hard and precise obligations. The emphasis in the Convention on Biological Diversity is to place the main decision-making at the national level: unlike other treaties related to the conservation of biological diversity, there are no lists, no annexes of accepted sites or of species to be protected. The explicit recognition of the sovereign rights of countries aligns well with the guiding principles of the Indian Constitution.



Guiding Principles *of* the Indian Constitution

The Indian Constitution, adopted in 1950, embodies the fundamental principles that guide the governance of the country.

- Sovereignty
- Socialism
- Secularism
- Democracy
- Justice
- Liberty
- Equality
- Fraternity

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.

Biological diversity - or biodiversity - is the term given to the variety and variability of life on Earth and the natural patterns it forms. The biodiversity we see today is the fruit of billions of years of evolution, shaped by natural processes and, increasingly, by the influence of humans. It forms the web of life of which we are an integral part and upon which we so fully depend.

This diversity is often understood in terms of the wide variety of plants, animals and microorganisms. So far, about 1.75 million species have been identified, mostly small creatures such as insects. Scientists reckon that there are actually about 13 million species, though estimates range from three to 100 million.

Biodiversity also includes genetic differences within each species - for example, between varieties of crops and breeds of livestock. Chromosomes, genes, and DNA-the building blocks of life-determine the uniqueness of each individual and each species.



Maguri Motapung Beel, Credit: Assam SBB



Yet another aspect of biodiversity is the variety of ecosystems such as those that occur in deserts, forests, wetlands, mountains, lakes, rivers, and agricultural landscapes. In each ecosystem, living creatures, including humans, form a community, interacting with one another and with the air, water, and soil around them.

It is the combination of life forms and their interactions with each other and with the rest of the environment that has made Earth a uniquely habitable place for humans. Biodiversity provides a large number of goods and services that sustain our lives.

As a megadiverse country harbouring nearly 7-8% of globally recorded species while supporting 18% of the global human population on mere 2.4% of world's land area, India's quest for inclusive economic development and need to maintain integrity of its natural capital demands a visionary approach grounded in the country's conservation traditions and pathbreaking research and innovation.

Diversity

105,953
Faunal species of India

28,948
Endemics

56,530
Floral species of India

12,095
Endemics

11,098.81 km
India's coastline

121
Languages

730+
Notified tribal groups

at a glance

02

The Edifice: ABS *and the* Nagoya Protocol

The Nagoya Protocol *on* Access and Benefit Sharing

While the CBD established the principle of fair and equitable benefit sharing, the implementation required a detailed, legally binding framework particularly to address concerns from biodiversity-rich countries about the unauthorized appropriation and commercialization of genetic resources and associated traditional knowledge without consent or benefit sharing with such countries.



View from Kedarnath Trek
Credit: Upma Manral, WII



Access and Benefit Sharing (ABS) is founded on the principle of equity, ensuring that biodiversity-rich countries and indigenous peoples and local communities receive fair and equitable monetary and non-monetary benefits arising from the utilization of biological resources and associated traditional knowledge in research, development, and commercial applications.

ABS also contributes to improving the socio-economic well-being of communities that have conserved and sustainably managed biological resources and traditional knowledge over generations. By facilitating fair and equitable benefit sharing, ABS promotes poverty alleviation, incentivizes biodiversity conservation, strengthens sustainable resource management, and supports inclusive and sustainable economic development.

In response, the CBD drafted the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilisation in 2001 and adopted the same at the sixth conference held in The Hague, the Netherlands,2002.

Many countries, including India, have adopted these guidelines, which were on a voluntary guidance mode. India in fact had relied on these guidelines in letter and spirit.

Subsequently, provider countries sought stronger, enforceable rules. Negotiations for a supplementary protocol began in 2004 through the Ad Hoc Open-ended Working Group on Access and Benefit-sharing.

After six years of intense discussions involving complex issues like Prior Informed Consent and Mutually Agreed Terms, compliance mechanisms, traditional knowledge protection and the relationship with other international agreements, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation was adopted on 29 October 2010, at COP-10 in Nagoya, Japan. It builds directly on Article 15 of the CBD and provides a transparent, predictable international framework for ABS.



Collection of fodder grass



The Nagoya Protocol operationalises the third objective of the CBD i.e., the fair and equitable sharing of benefits arising from the sustainable use of resources, by providing a strong basis for greater legal certainty and transparency for both providers and users of genetic resources while reinforcing the first two objectives.

Innovations *of the* Nagoya Protocol

The establishment of specific obligations to facilitate compliance with the domestic legislation or regulatory requirements of the Party

Measures that promote more predictable access conditions for genetic resources

Compliance for access to traditional knowledge associated with genetic resources held by local communities

Enhances legal certainty and transparency for users including researchers, biotechnology and pharmaceutical companies, while safeguarding the sovereign rights of provider countries over their genetic resources

The clear procedures and Mutually Agreed Terms mean reduced transaction costs, increased trust, and responsible global flows of genetic resources

Mainstreaming ABS *in* Global Biodiversity Targets

The Aichi Biodiversity Targets “Strategic Plan for Biodiversity 2011 to 2020”, adopted under the CBD, provides a global framework to halt biodiversity loss and promote the sustainable use of biological resources. In recognition of this, Aichi Biodiversity Target 16 called for the Nagoya Protocol on ABS to be in force and operational by 2015.

The integration of the Nagoya Protocol into the Aichi Biodiversity Targets marked an important milestone in ABS and its role in biodiversity conservation.

Building on the lessons from the Aichi Biodiversity Targets, Parties adopted the Kunming Montreal Global Biodiversity Framework (KMGBF) at COP 15 in Montreal in December 2022.

Target 13 of the KMGBF aims to operationalize and scale up ABS by calling for effective legal, policy, administrative and capacity building measures. It is also closely linked to other elements of the KMGBF, including biodiversity finance, capacity building, and the effective participation of local communities. As a result, Parties increasingly recognise ABS as a central pillar of the KMGBF, essential for promoting equity, strengthening international cooperation, and creating incentives for the conservation and sustainable use of biodiversity.



The Global Biodiversity Framework Mosaic
Credit: UNEP

India's participation *in* global ABS negotiations

India has played an active and influential role in global ABS negotiations. Across decades, India continues to align its national ABS framework with global commitments while positioning itself as a leading example of operationalising ABS at a scale and advocating for equitable global biodiversity governance.

Following the signing of the CBD in 1993 and ratification in 1994, India engaged proactively in discussions under the Working Group on ABS, advocating for robust compliance mechanisms, safeguards for traditional knowledge, and fair and equitable benefit sharing arrangements.

India signed the Nagoya Protocol on 11 May 2011 and ratified it on 9 October 2012, becoming one of the early Parties that enabled the Protocol's entry into force on 12 October 2014.



UN Biodiversity Conference 2022
Credit: UNEP



Cultivation of native amaranth
Credit: Upma Manral, WII

India further demonstrated its leadership by hosting the eleventh meeting of the Conference of the Parties to the CBD in Hyderabad in 2012, which advanced global deliberations on the implementation of ABS. In its capacity as President of the Conference of the Parties at its eleventh meeting, India presided over the first Meeting of the Parties to the Nagoya Protocol, reiterating its leadership in shaping the global Access and Benefit Sharing framework.

India has since continued to advocate for strengthened international measures on key issues, including digital sequence information (DSI), equitable benefit sharing for provider countries, and the meaningful participation of local communities.

National Report *to the* Nagoya Protocol

India submitted its First National Report (NR1) on the implementation of the Nagoya Protocol on ABS to the Secretariat of the Convention on Biological Diversity on 27 February 2026. The report covers progress from 1 November 2017 to 31 December 2025, as required under Article 29 of the Protocol.

The report builds upon India's Interim National Report on implementation of the Nagoya Protocol on ABS submitted in 2017, which presented an initial overview of implementation measures, and provided an updated and comprehensive account of progress made during the reporting period.

The report was drafted in an inclusive manner, involving the constitution of a Multi-Stakeholder Working Group and following a whole-of-government and whole-of-society approach, integrating inputs from SBBs/ UTBCs, BMCs, research and academic institutions, industries, civil society organisations, and local communities. It aligns with India's Seventh National Report under the CBD to maintain coherence and consistency in reporting.



Release of the First National Report on the Nagoya Protocol on Access and Benefit Sharing 2026

03

The Pillars: Legal *and* Policy Framework

Legal *and* Policy Framework

The Constitution of India provides an important legal foundation for biodiversity conservation and the sustainable management of biological resources. Article 48A directs the State to protect and improve the environment and safeguard forests and wildlife, while Article 51A(g) establishes the fundamental duty of citizens to protect and improve the natural environment.

It places responsibility on both the State and citizens to protect the natural environment and ensure that natural resources are used for the common good. This approach reflects the principle of public trust, under which the State acts as a trustee of natural resources for the benefit of present and future generations.

India being a party to the CBD, enacted the Biological Diversity Act in 2002 and notified the Biological Diversity Rules in 2004 to give effect to the provisions of the CBD, including those relating to ABS.



Rhododendron arboreum
Credit: Upma Manral, WII

Biological Diversity Act, *2002*

India's commitment to the Nagoya Protocol builds on its early efforts to implement the CBD, with the BD Act, 2002 serving as a pioneering legislative framework to regulate access to biological resource and associated knowledge and ensure equitable benefit sharing, even before the Protocol's entry into force in 2014.

Scope of the Act

Biological Resources and its Parts
Plants, animals, microorganisms and parts thereof

Genetic Resources
Genetic Material, Digital Sequence Information

Derivatives
Naturally occurring biochemical compounds or metabolism of biological resources

Associated Knowledge
Traditional and contemporary knowledge

The BD Act also respects customary use and exchange of biological resources among local communities. Section 7 of the BD Act exempts cultivators, vaids, hakims, and registered practitioners of traditional systems of medicine under AYUSH from ABS requirements when accessing biological resources for their livelihood and practice, in line with Article 12.4 of the Nagoya Protocol. Mechanisms are also in place to inform potential users of traditional knowledge about their legal obligations under the BD Act, the BD Rules, and ABS Regulations, 2025.

After nearly two decades of implementation of the BD Act, it was time to review and revisit - leading to the Government of India enacting The Biological Diversity (Amendment) Act, 2023.

Key Features *of the* Biological Diversity (Amendment) Act, *2023*

Reducing Pressure on Wild Medicinal Plants: Encouraging cultivation of medicinal plants to reduce harvesting pressure on wild populations

Promotion of Indian Systems of Medicine: Supporting the growth of traditional systems such as AYUSH

Facilitating Research and Innovation: Enabling fast-tracking of research, patent applications and transfer of research results

Decriminalisation of Certain Provisions: Introducing monetary penalties in place of criminal penalties

Promoting Foreign Investment: Encouraging responsible foreign investment in research, patents, and commercial utilisation of biological resources, without compromising the objectives of the Act.

Date of enforcement - 1 Apr 2024

Biological Diversity Rules, *2024*

Date of enforcement - 22 Dec 2024

The Biological Diversity Rules 2024 (BD Rules, 2024) were notified to give effect to the amended Act and replace the BD Rules 2004. They aim to simplify, streamline and reduce compliance burdens in order to encourage a conducive environment for collaborative research and investments in different sectors, widen the scope of levying access and benefit sharing with local communities, and further conserve biological resources.

Key Features

Faster Approvals: Approval timelines reduced from 180 days to 90 days (except for IPR-related approvals)

Simplified Approval Procedures: Streamlined processes for research and commercial utilisation by non-Indians, transfer of research results abroad, and commercialisation of IPRs

Patent and Registration Procedures: Defined procedures for registration of further use of transferred research results for further research and patent applications by Indians

Facilitating Non-commercial Research: Simplified procedures for Indian researchers to send biological resources abroad for non-commercial research, including during emergencies such as pandemics

Certificate of Origin for cultivated Medicinal Plants: Biodiversity Management Committees empowered to issue Certificates of Origin for cultivated medicinal plants for availing exemptions under Section 7(2)

Monitoring Foreign Biological Resources: Measures introduced to monitor use in India of biological resources and traditional knowledge sourced from foreign countries

Adjudication Mechanism: Provision for Adjudicating Officers, penalty determination, and appeal before the National Green Tribunal (NGT)

Revised Application Forms and Fees: Updated application forms and fee structures for approvals from the NBA

To address concerns raised by stakeholders related to traditional medicine products, the MoEFCC amended Rule 19 and the corresponding Forms 11 and 12 of the BD Rules, 2024, by The Biological Diversity (Amendment) Rules, 2025.





Processing of Phoenix loureiroi fronds, Tamil Nadu
Credit: Care Earth Trust

ABS Regulations, *2025*

Date of enforcement - 30 Apr 2025

The Guidelines on Access to Biological Resources and Associated Knowledge and Benefit Sharing Regulations, 2014 (ABS Regulations, 2014) prescribe the scheme of processing the applications, along with a template and terms for benefit sharing.

Following amendments to the BD Act and Rules and to address stakeholder concerns, the ABS Regulations were also modified - leading to the ABS Regulations, 2025. The 2025 ABS Regulations strengthen the ABS mechanism to ensure fair benefit-sharing with local communities while promoting ease of doing business.

Key Features

Companies with annual turnover up to INR 5 crore (USD 0.5 million) are exempt from ABS Payment.

ABS is calculated based on gross ex-factory sale price (excluding taxes) and linked to annual turnover.

State Biodiversity Boards must decide applications within 15 days. If no response is received, the application is deemed approved. Disputes are resolved by NBA within 15 days.

A standard format and centralized portal enables Indian applicants to apply to multiple State Biodiversity Boards (SBBs).

Products containing both cultivated and non-cultivated medicinal plants may be exempt from Benefit-Sharing, as notified by MoEFCC.

Indian scientists may deposit novel microbial strains in foreign repositories by informing NBA through the web portal.

Modalities for sharing and utilisation of ABS funds by NBA and SBBs have been prescribed.

The National Biodiversity Strategy *and* Action Plan

Following national consultations on biodiversity conservation during the 1990s, the Government of India had adopted the National Policy and Macro Level Action Strategy on Biodiversity in 1999 and updated it in 2008.

Keeping with the changes introduced by the Aichi Targets and the KMGBF, India updated its NBSAP in 2010 and 2022. India's updated NBSAP was launched during CBD-CoP 16 in Cali, Colombia.

The updated NBSAP comprises 23 National Biodiversity Targets (NBTs) along with 142 indicators. It comprehensively addresses conservation, sustainable use and benefit sharing and envisages protecting terrestrial and marine areas, restoring degraded ecosystems and reducing biodiversity threats through pollution control and invasive species management.

NBSAP *2024-2030 • NBT 13 - ABS Action Points*

Develop a sui generis system for protection of traditional knowledge and related rights.

Raise awareness at the central, state and local levels for effective implementation of the provisions under the Biological Diversity Act.

Provide support and capacity building for preparation and updation of PBRs with technical help from the scientific institutions and convert them into e-PBRs.

Strengthen systems for documentation, application and protection of biodiversity and associated traditional knowledge, providing adequate protection to these knowledge systems while encouraging benefits to communities.

Revive and revitalize sustainable traditional practices and other folk uses of components of biodiversity and associated benefits to local communities with a view to promoting and strengthening traditional knowledge and practices.

Update the modalities for operationalizing provisions for prior informed consent and benefit sharing under the Biological Diversity Act.

Encourage and support SBBs/ UTBCs to develop and maintain state/UT level web portal on biodiversity management information system.

Establish a common platform for states with common biological resources to synergize ABS mechanisms.

Undertake inventorization of potential resources for commercial utilization and disseminate to BMCs/ Panchayats for effective benefit sharing.

Set up traceability mechanisms specially for use of Digital Sequence Information (DSI) from genetic resources and traditional knowledge linked to genetic resources.

Monitor various monetary modalities for benefit sharing from DSI and enable a mechanism for receiving funds from Global Multilateral Fund related to DSI.



Harvest festival of tribal community in Western Ghats, Tamilnadu
Credit: Care Earth Trust

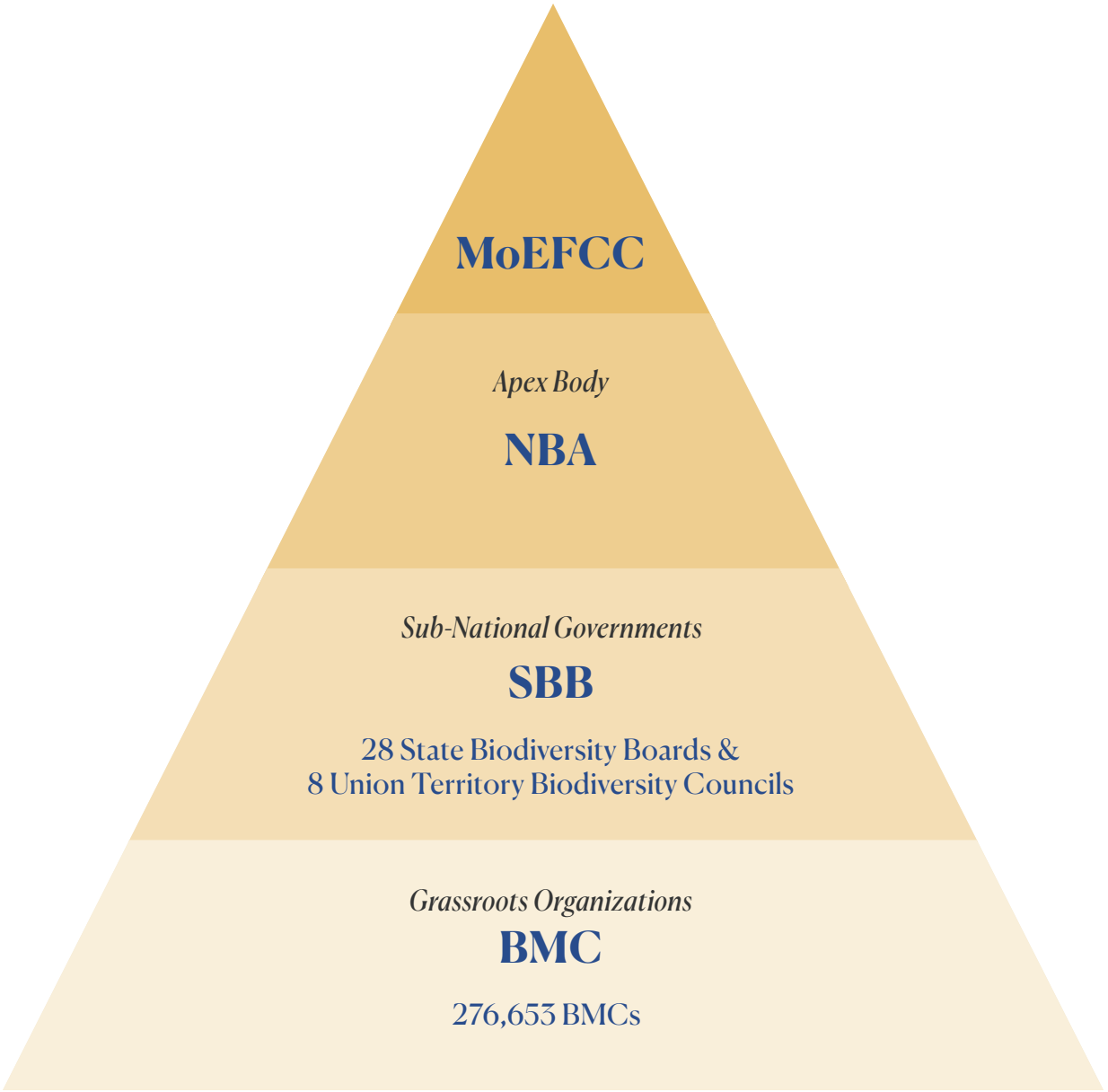
04

Institutional Mechanisms

Institutional Mechanisms

India, as one of the world's most ancient civilizations, has nurtured vast and diverse knowledge systems—systematically codified yet inherently open—providing a distinctive civilizational head start in the practice of documentation and record-keeping.

The 73rd and 74th Constitutional Amendments (1992) decentralized power by recognizing the mandate of the local self-government. In many ways, biodiversity governance in India mirrors this decentralized governance structure – a three-tier structure with the National Biodiversity Authority (NBA) at the national level, State Biodiversity Board (SBBs) and Union Territory Biodiversity Councils (UTBCs) at the State and Union Territory level, and Biodiversity Management Committee (BMCs) at the local body level.



National Biodiversity Authority (NBA)

The National Biodiversity Authority (NBA) functions as the apex body responsible for implementing the provisions of the BD Act, 2002. The Authority regulates activities involving access to biological resources and associated traditional knowledge by foreign individuals, companies, and non-resident Indians for research, bio survey and bio-utilisation and commercial utilisation. It also grants approvals for the transfer of research results, applications for intellectual property rights based on biological resources and traditional knowledge associated thereto obtained from India.

In addition, the Authority performs an advisory role to the Central and State Governments on matters related to conservation, sustainable use and access to biological resources and benefit sharing with the local communities.

Drawing lessons from cases of misappropriation of Indian biological resources and associated knowledge, such as turmeric and basmati rice, India has strengthened its efforts to prevent the wrongful grant of intellectual property rights (IPRs) abroad. NBA, on behalf of the Central Government, may oppose the grant of IPRs outside India where such rights concern biological resources obtained from India or associated traditional knowledge, as applicable under the relevant legal framework.



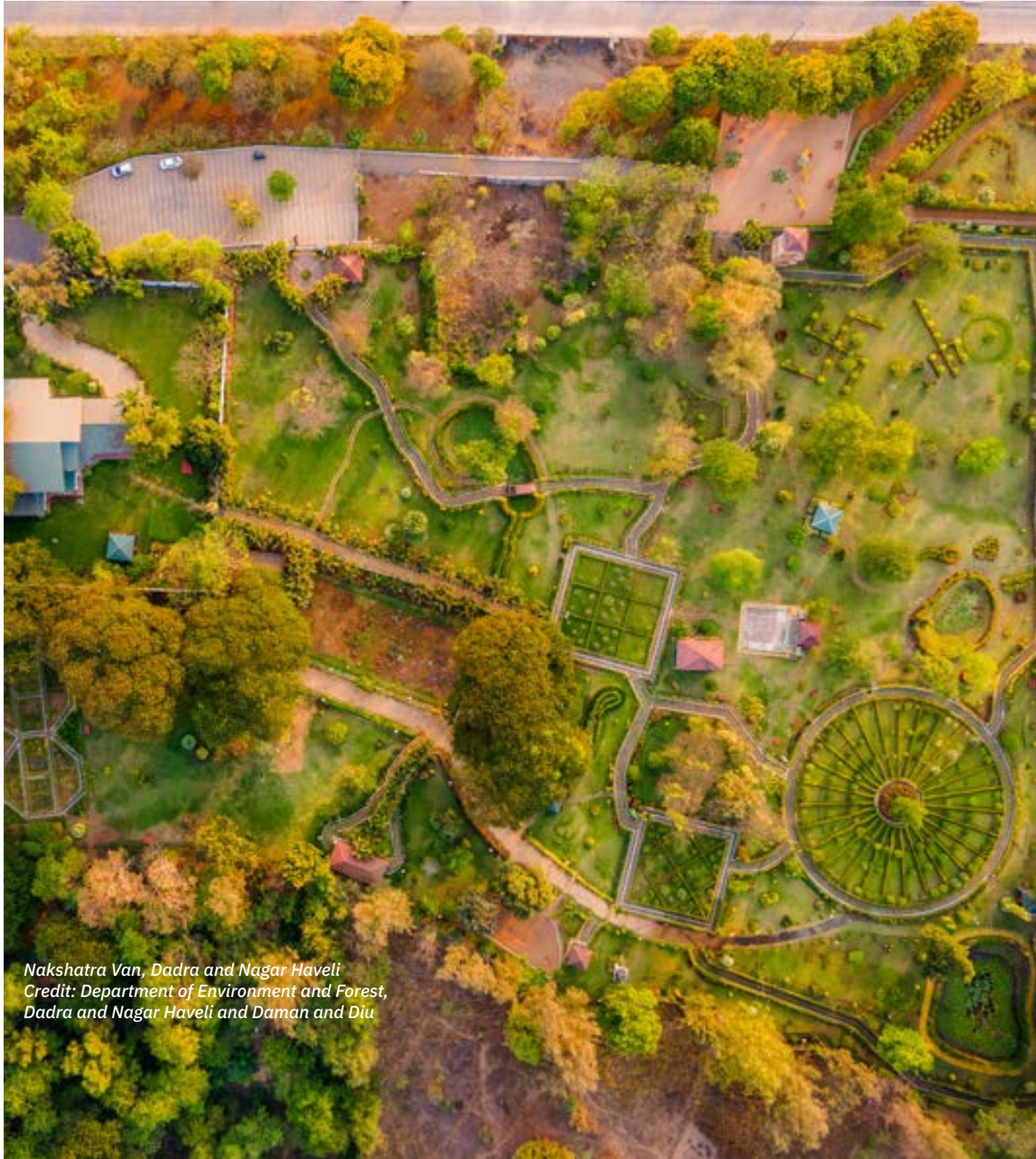
Ficus tree in Telangana
Credit: Telangana SBB

State Biodiversity Board (SBBs) and Union Territory Biodiversity Councils (UTBCs)

At the sub-national governments, State Biodiversity Boards (SBBs) and Union Territory Biodiversity Councils (UTBCs) are established to regulate access to biological resources and associated knowledge thereto by Indian individuals, industries and institutions for commercial utilization.

SBBs play a key role in the constitution of BMCs, advising State Governments on biodiversity conservation, sustainable use, and documentation of biological resources within their jurisdictions and in particular, on declaration of Biodiversity Heritage Sites and the notification of threatened species.

In India, all sub-national governments have constituted the SBBs / UTBCs.



Nakshatra Van, Dadra and Nagar Haveli
Credit: Department of Environment and Forest, Dadra and Nagar Haveli and Daman and Diu



BMC Meeting at Thad Mukoh, West Jaintia Hills, Meghalaya Credit: Meghalaya SBB

Biodiversity Management Committees (BMC)

The Biodiversity Management Committee (BMC) functions as the custodian of biological resources. Constituted with the local elected bodies, BMCs play a key role in enabling community participation in biodiversity governance and ABS mechanism.

BMCs are responsible for promoting biodiversity conservation at the grassroots level and for documenting local biodiversity and associated traditional knowledge. Under the BD Act and the BD Rules, the NBA and SBBs/UTBCs are required to consult BMCs before granting approvals for access to biological resources or associated traditional knowledge, as provided under Sections 19 and 41 of the BD Act. The BMCs are empowered to levy collection fees for commercial use of biological resources and consultations are required for the declaration of a Biodiversity Heritage Site. The BMCs are mandated to issue Certificates of Origin for cultivated medicinal plants, enabling eligible users to avail themselves of the applicable exemption from ABS requirements.

These provisions ensure that the traditional knowledge holders receive fair and equitable benefits arising from the use of biological resources.

India's sustained commitment to participatory *and* community-based biodiversity governance

Effective operationalisation *of the* implementation framework

Sub-National Governments

28
States

8
Union Territories

Over
276,653 BMCs
constituted by local bodies





Kheda Tal, Uttarakhand
Credit : *Uttarakhand SBB*

People's Biodiversity Register (PBR)

The People's Biodiversity Register, that can be broadly described as a community led, grassroots chronicling of biodiversity, which is the mandate of the BMCs, and is the database through which ABS is operationalised.

According to Section 41(1A) of the Act, BMCs are mandated to record in the PBRs, the details of bio-resources, their uses, and associated traditional knowledge, including habitats, landraces, cultivars, domesticated breeds, and microorganisms.



Documentation in progress in Uttarakhand
Credit: Uttarakhand SBB



National Meeting of SBBs and UTBCs

In recent times, the All India Coordinated Research Project on Ethnobiology (AICRPE) from 1982 - 1994 by the then Dept. of Environment, jointly implemented by Botanical Survey of India (BSI) and Zoological Survey of India (ZSI) in many ways marked the beginning of India's foray into documenting of Traditional Ecological Knowledge (TEK).

The PBR is a standing example of India's efforts in protecting its Traditional Knowledge Systems, through a strategy described as Positive Protection by the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources.

The two aspects that are focussed in Positive Protection are

Preventing unauthorized use, and

Active exploitation of TEK by the originating community itself

PBR is one of the first activities that was launched post the Rio Summit in 1995. The main features of PBR envisaged were

Recording of biodiversity related knowledge, pertaining to management

Sharing of benefits arising from its commercial utilisation

Opportunities to generate funds through imposition of collection fees for access to biodiversity resources

Conserving valued resources

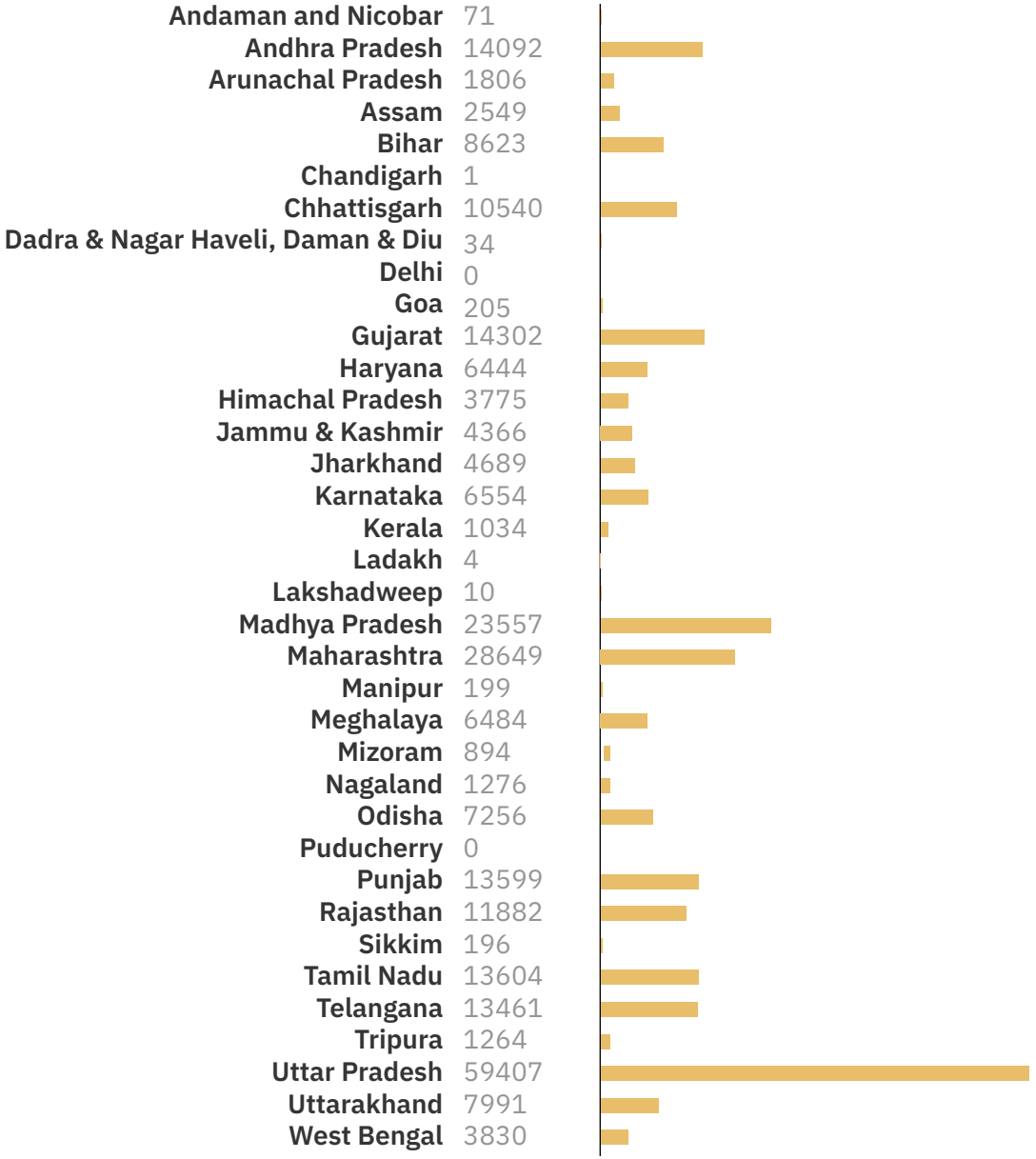
Value addition to biodiversity resources

Community regulation of access to biological resources leading to sustainable harvests

Promoting knowledge-based sustainable management of agriculture, livestock, fish, forests and public health so as to enhance the quality of life of the community members

The PBR serves as the evidence of the presence of the bioresource and associated knowledge and aids in identifying and validating benefit claimers for the disbursal of funds accrued under the provisions of ABS.

As of date, 272,648 PBRs have been documented across the country. Efforts are ongoing to transition them into a centralised meta-database with provisions for easy data retrieval buffered with stringent protection and layered access.



05

India's ABS Trajectory

Understanding Access

Access is the starting point of the ABS process. It refers to collecting, procuring or possessing biological resources, or obtaining associated traditional knowledge, for specified purposes such as research, bio-survey or commercial utilisation, subject to the applicable legal framework. Such access may facilitate scientific investigation, characterisation of biological resources, assessment of their properties, and research and product development.

Access may also involve biological resources obtained directly from natural habitats, agricultural fields or cultivated sources, as well as through markets, suppliers or research institutions. The applicability of access-related requirements depends on the origin and nature of the resource, the category of user, the intended purpose and the relevant statutory provisions.



A fish landing station in Andhra Pradesh
Credit: Upma Manral, WII



Section 2(a) of the Biological Diversity Act, 2002, defines access as collecting, procuring or possessing any biological resource occurring in or obtained from India, or traditional knowledge associated with such resources, for the purposes of research, bio-survey or commercial utilisation.

This definition encompasses two principal elements: access to biological resources and access to associated traditional knowledge. Under Section 2(c) of the Act, biological resources include plants, animals and microorganisms, or parts thereof, their genetic material and by-products, excluding value-added products, with actual or potential use or value for humanity. Human genetic material is excluded from this definition.

However, obtaining a biological resource does not, by itself, establish that a particular approval is required. The applicable regulatory requirements must be determined with reference to the relevant provisions of the Act, the category of user, the purpose of access and any applicable exemptions.

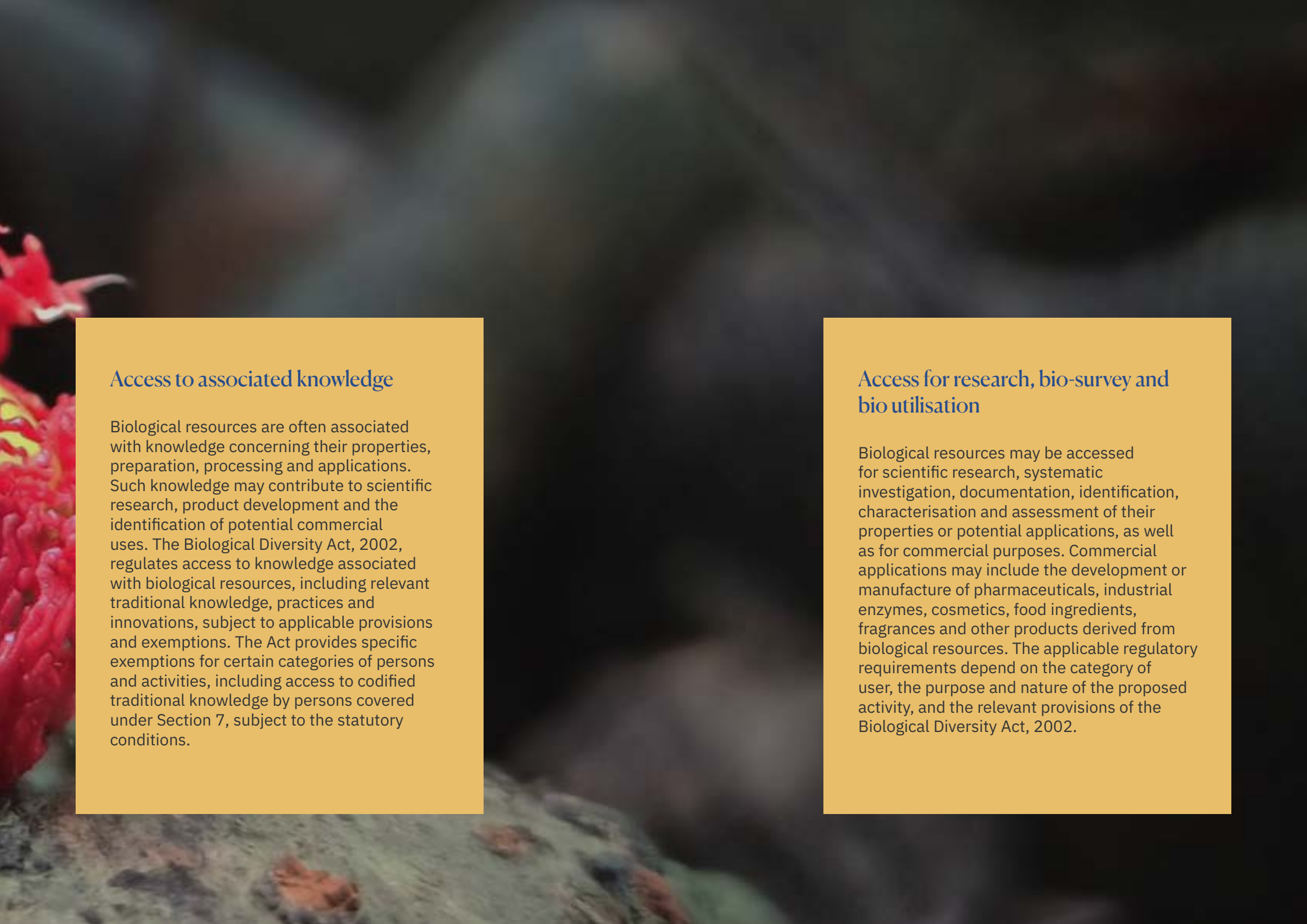
Categories *of* Access

The definition of access extends beyond the physical collection of biological material and recognises the acquisition of resources through different channels. For the purposes of understanding the ABS framework, access may be considered under the following broad categories.

Access to biological resources, including Digital Sequence Information (DSI)

This involves obtaining biological resources, including plants, animals, microorganisms, their genetic material and relevant derivatives, for research, bio-survey or commercial utilisation. Digital Sequence Information (DSI) refers broadly to digital information relating to genetic sequences and associated biological data used in scientific research and other applications. Such information may support genetic analysis, identification and characterisation of organisms, understanding biological functions, research and product development. The treatment of DSI under ABS frameworks is evolving internationally. In India, the ABS Regulations, 2025, address DSI within the domestic regulatory framework, subject to their applicable provisions.

Bambarde Myristica Swamp, Maharashtra
Credit: Maharashtra SBB



Access to associated knowledge

Biological resources are often associated with knowledge concerning their properties, preparation, processing and applications. Such knowledge may contribute to scientific research, product development and the identification of potential commercial uses. The Biological Diversity Act, 2002, regulates access to knowledge associated with biological resources, including relevant traditional knowledge, practices and innovations, subject to applicable provisions and exemptions. The Act provides specific exemptions for certain categories of persons and activities, including access to codified traditional knowledge by persons covered under Section 7, subject to the statutory conditions.

Access for research, bio-survey and bio utilisation

Biological resources may be accessed for scientific research, systematic investigation, documentation, identification, characterisation and assessment of their properties or potential applications, as well as for commercial purposes. Commercial applications may include the development or manufacture of pharmaceuticals, industrial enzymes, cosmetics, food ingredients, fragrances and other products derived from biological resources. The applicable regulatory requirements depend on the category of user, the purpose and nature of the proposed activity, and the relevant provisions of the Biological Diversity Act, 2002.

The Biological Diversity Act, 2002, BD Rules, 2024, provides differentiated regulatory procedures based on the category of user and the nature of the activity.

Access by persons covered under Section 3(2)

Section 3 requires prior approval of the NBA for specified categories of persons seeking to obtain biological resources occurring in India or associated knowledge for research, commercial utilisation, or bio-survey and bio-utilisation. The provision covers persons and entities falling within the categories of section 3(2) of the Act, including foreign individuals and entities and entities with specified non-Indian participation.

Access by persons covered under Section 7

Section 7 provides for prior intimation to the concerned SBB or UTBC, as applicable, by persons covered under that provision who access biological resources for commercial utilisation, subject to statutory exceptions. The regulatory requirements applicable to persons covered under Section 7 differ from those applicable under Section 3.

Transfer of research results

Section 4 regulates the transfer of research results relating to biological resources to section 3(2) persons.

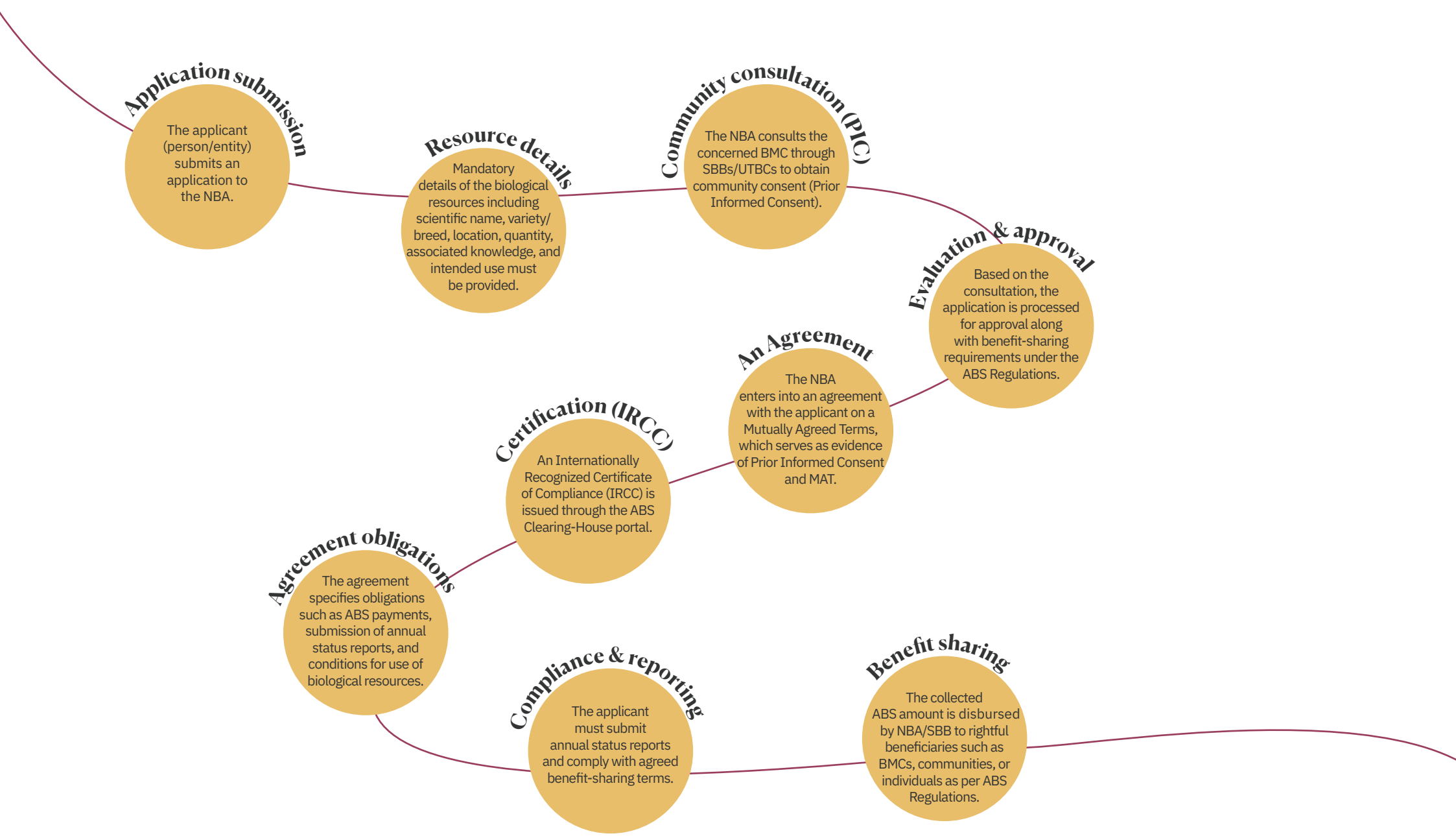
Obtaining intellectual property rights

Section 6 regulates applications for intellectual property rights based on research or information relating to biological resources accessed from India, in accordance with the applicable provisions and exemptions. For Indians, only registration is required at the time of obtaining patent. Foreign nationals need to obtain approvals

Sending biological resources outside India by Indians for conducting non-commercial research is facilitated through simplified processes.

Other provisions of the Act and the Rules govern specified activities, including certain transfers, international collaborative research projects and the movement or deposition of biological resources in repositories outside India.

The regulatory framework is therefore not a uniform approval mechanism for every instance of access. Determining the applicable procedure requires consideration of the user's legal status, the resource and its origin, the proposed activity, and any relevant exemption.



This process ensures transparency, accountability, and fair sharing of benefits arising from the use of biological resources in accordance with the Biological Diversity Act and ABS Regulations.

Access

India's "ABS E-filing", an online ABS application filing system, is mandatory for applicants. The NBA has made information available on how to apply for seeking approval / obtaining PIC under the BD Act, including user guidelines, online ABS application formats and frequently asked questions, through its official website and the ABS online portal.

The approval process adheres to fair and non-arbitrary rules as mandated by Article 6.3(b) of the Nagoya Protocol. This framework clearly outlines the requirements for obtaining approval, and defines the respective roles of the various authorities. This legal structure ensures transparency, consistency, and equitable treatment for all applicants while safeguarding the rights of benefit claimants and indigenous communities.

According to BD Act and BD Rules - the NBA/ SBB/UTBCs must consult the concerned BMC while processing applications for access to biological resources and associated knowledge. This ensures that decisions are not taken in isolation at the national and State level but involve local communities.

The BMC consults local communities and knowledge holders to secure their consent or otherwise on the access request.

This process is essential for obtaining Prior Informed Consent, ensuring that communities are fully informed about the purpose, scope, and potential impacts before giving consent or raising objections.

ABS is a key mechanism for ensuring that the utilisation of biological resources and associated traditional knowledge takes place in accordance with applicable legal requirements and that the benefits arising from such utilisation are shared fairly and equitably. It seeks to balance the interests of resource providers and users by facilitating legitimate research and innovation while recognising the contributions of countries, local communities and traditional knowledge holders, thereby preventing misappropriation of biological resources and associated traditional knowledge, commonly known as biopiracy.



Primary processing of Phyllanthus indofischeri (Amla), Tamil Nadu
Credit: Care Earth Trust

ABS Agreements

Model Contractual Agreements strengthen decentralized decision-making by incorporating the views of the users and interests of local communities into the access approval process.

It reinforces the role of BMCs as critical institutions for biodiversity governance and helps safeguard community rights over biological resources and associated knowledge. The mechanism is also consistent with Articles 6.2 and 7 of the Nagoya Protocol, which emphasize the need to obtain prior informed consent or approval and involvement of indigenous peoples and local communities for access to genetic resources and associated traditional knowledge.

The NBA receives applications from a diverse range of stakeholders, including Indian and foreign individuals, organizations, research institutions, and companies. Approvals are granted through legally binding agreements executed between the applicant and the concerned BMC, represented by the NBA.

To promote transparency, consistency, and legal certainty, the NBA, in consultation with relevant stakeholders, has developed model contractual clauses incorporating the minimum requirements of MAT for different categories of access and utilization.



Orchid (Vanda roxburghii) ,
used in traditional medicine, Himachal Pradesh



These agreements provide standardized provisions relating to:

ABS obligations;

Description of biological resources and associated knowledge;

Duration and purpose of access;

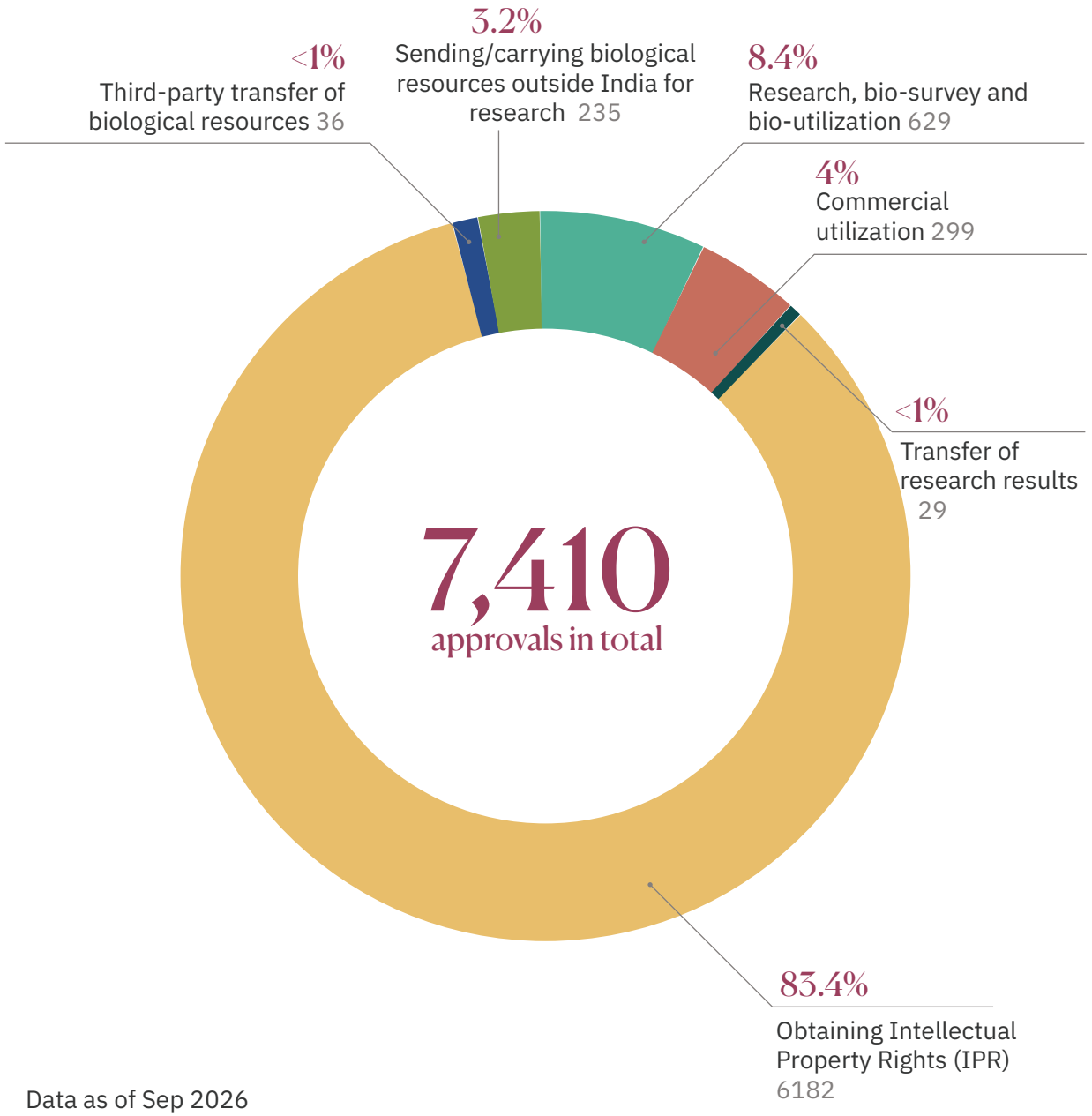
Collection timelines and locations;

Reporting and compliance requirements; and

Submission of annual status reports and audit reports in specified formats.

The model agreements assist users in understanding their rights and obligations while ensuring clarity regarding the responsibilities of the competent authority. SBBs and UTBCs are encouraged to adopt similar model clauses while establishing MAT with users.

ABS Approvals Granted



Data as of Sep 2026

Total Applications Received
11,273

Total Approvals Granted
7,410

Total Model Agreements*
1,523

Total Applications Closed
1,740

Applications Under Process
600

Data as of Sep 2026



*sent to applicant for execution

Kandara Bugyal, Uttarakhand
Credit: Uttarakhand SBB

Benefit-Sharing Mechanisms

The journey from BD Act and BD Rules to the ABS Regulations 2025 have enabled the possibility of Benefit Sharing Mechanisms, both monetary and non-monetary.

Monetary Benefits

Monetary benefit-sharing measures may include:

Upfront payments;

Access fees;

Royalties on commercialized products;

Milestone payments during product development;

Licensing fees related to intellectual property rights;

Joint ventures; and

Profit-sharing arrangements.

Non-Monetary Benefits

Non-monetary benefit-sharing measures may include:

Transfer of technology related to the utilization of biological resources;

Sharing of research findings and scientific information;

Capacity building and training programmes for local communities and institutions;

Institutional partnerships and collaborative research initiatives; and

Support for biodiversity conservation and community-based infrastructure development.

The flexibility to combine monetary and non-monetary benefits enables benefit-sharing arrangements to be tailored to specific circumstances, while ensuring that biodiversity conservation, sustainable use, and community welfare objectives are effectively addressed. This approach is fully aligned with the objectives of the CBD and the Nagoya Protocol, ensuring that benefits arising from the utilization of biological resources are shared in a fair and equitable manner.



Areca Palm (Areca catechu), Meghalaya
Credit: Meghalaya SBB

The mechanism for disbursement of ABS has been streamlined under the ABS Regulations, 2025. The benefit-sharing amount collected by the NBA is deposited in the National Biodiversity Fund (NBF) and utilised for channelling benefits to benefit claimers, conservation and sustainable use of biological resources, and socio-economic development of areas from where such biological resources or associated traditional knowledge have been accessed, in consultation with the BMCs.

Under ABS Regulations

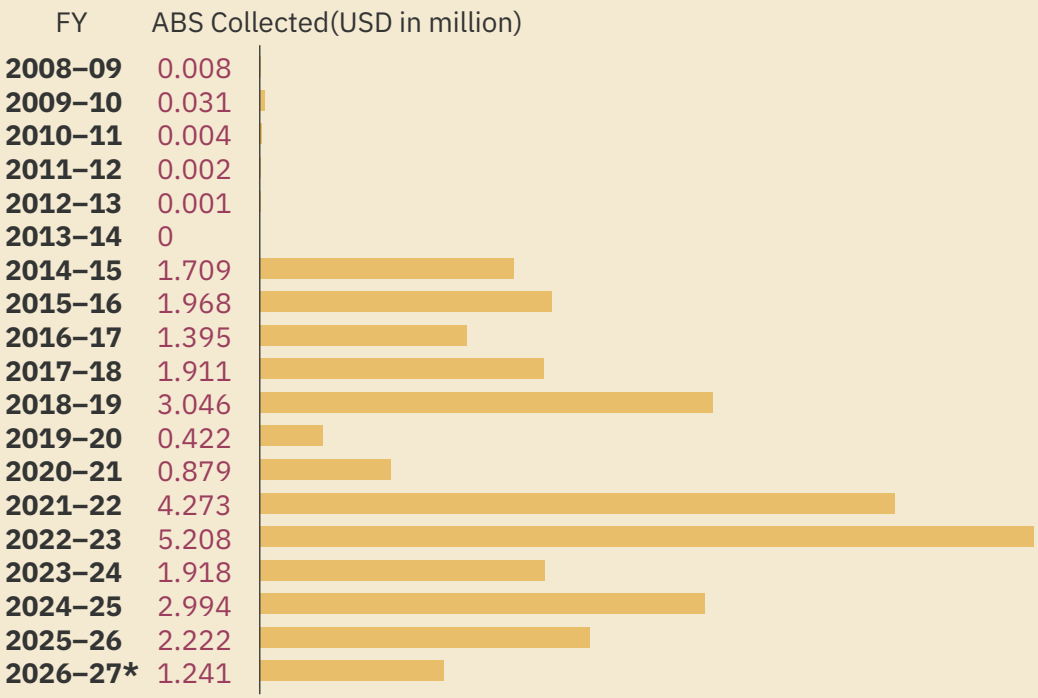
10-15% of the accrued benefits may be retained by the NBA, of which half may be shared with the concerned SBBs/ UTBCs

the remaining 85-90% of the benefit-sharing amount is distributed among identified benefit claimers (including BMCs, local communities, farmers, and holders of traditional knowledge)

The NBA develops modalities for utilising the ABS amount collected on account of biological resources accessed through intermediaries like markets, traders, and institutions, from time to time. For this purpose, the data available in various ministries are used as source for geographical distribution of the resources concerned.

The NBA identifies benefit claimers based on information provided in ABS applications and through consultations with SBBs/UTBCs, BMCs and other local stakeholders.

In cases where the source of the biological resource or holder of the associated knowledge is unknown, the benefit-sharing amount is deposited in the NBF, in accordance with Section 27 of the Act, and utilised for biodiversity conservation and socio-economic development of areas from where such biological resources or associated traditional knowledge have been accessed.



*As of Sep 2026

ABS Amount Collected in USD (in millions)

Sectoral ABS Amount Received by NBA

Red Sanders
USD 12.5 million

Cosmetics
USD 0.8 million

Pharmaceuticals & Nutraceuticals
USD 1.2 million

Agriculture and Seeds
USD 9.03 million

AYUSH
USD 5.2 million

Others
USD 0.5 million

Since the inception of NBA

INR 278 crore (USD 29.23 million)
realised through benefit sharing

Approximately,
INR 202 crore (USD 21.11 million)
has been disbursed to beneficiaries

Benefit claimers

Over
10,500+ BMCs
28 SBBs
7 UTBCs

along with the
6 Forest Departments *of*
Andhra Pradesh, Karnataka, Odisha, Telangana, Maharashtra, and Tamil Nadu

58 institutions
under ICAR, CSIR-ICFRE, and other research organisations and universities.

More than **230 farmers**

Financial Year	ABS Disbursed (INR Crore)	ABS Disbursed (USD Million)
2008–09	0.0039	0.000401
2010–11	0.002	0.000209
2011–12	0.0084	0.000877
2016–17	3.3714	0.352
2019–20	0.8104	0.085
2020–21	52.0897	5.444
2021–22	1.8463	0.193
2022–23	4.1436	0.433
2023–24	0.9551	0.1
2024–25	2.47	0.258
2025–26	78.8401	8.239
2026–27*	57.4691	6.006
Total	**202.01**	**21.11**

**As of Sep 2026*

India has also established a robust framework for access to justice in alignment with Article 18.3(a) of the Nagoya Protocol. Under Section 52A of the BD Act, any aggrieved person may appeal against orders or benefit-sharing determinations of the NBA or SBBs/UTBCs before the National Green Tribunal (NGT). The NGT provides specialised and expeditious adjudication of environmental and biodiversity- related disputes, while upholding the principles of natural justice. It is empowered to grant interim relief, award compensation, and enforce its orders within prescribed timelines.

ABS amount collected by Sub-National Governments - INR 51.93 crore (USD 5.46 million)

ABS CH and International Compliance

The ABS CH is a platform developed and maintained by SCBD as mandated under Article 14 of the Nagoya Protocol, for exchanging information on access and benefit-sharing, as part of clearing-house mechanism under Article 18, paragraph 3 of the CBD. It is a key tool for facilitating the implementation of the Nagoya Protocol by enhancing legal certainty, clarity and transparency on procedures for access and for monitoring the utilisation of genetic resources along the value chain.

By making relevant information available in the ABS CH, it helps users to access genetic resources and associated traditional knowledge, and providers to get fair and equitable share in the benefits arising from their utilisation.

Issuance of IRCC as of March 2026

India 3561 | Rest of the world

56% 44%

Total IRCCs issued globally 6,311



Pennahobilam Sacred Grove, Biodiversity Heritage Site, Andhra Pradesh
Credit: Andhra Pradesh SBB



The ABS-CH captures records such as ABS National Focal Points, Competent National Authorities, legislative, administrative or policy measures, ABS procedures, national model contractual clauses, IRCCs, national websites or databases, checkpoints, checkpoint communiqués, and national reports on implementation.

Under the Nagoya Protocol, India has published several records in the ABS CH, reflecting its implementation of ABS measures. India has notified 32 legislatives, administrative, and policy measures and has established one ABS procedure in accordance with Article 13 of the Protocol.

India has emerged as the global leader in issuing IRCCs under the Nagoya Protocol on ABS, accounting for over 56 per cent of all certificates issued worldwide.

The first IRCC globally was issued by India in October 2014.

Capacity Building *and* Awareness

Capacity building is fundamental to the effective implementation of ABS under the Nagoya Protocol and the BD Act. It strengthens the institutional, technical, scientific, and legal capabilities of key implementing authorities, including the NBA, SBBs/UTBCs, and BMCs, enabling them to interpret, implement, monitor, and enforce ABS provisions in a consistent, transparent, and efficient manner. Capacity-building efforts also enhance India's ability to participate effectively in international negotiations, policy dialogues, and collaborative initiatives relating to biodiversity governance.



5,500

Number of training programmes conducted

Training and Capacity Building, Assam
Credit: Assam SBB



400,000~

Number of people trained

In the Indian context, capacity building is essential for promoting awareness and improving compliance among users of biological resources and associated traditional knowledge, including researchers, academic institutions, industries, innovators, and local communities. It supports stakeholders in understanding critical ABS requirements, such as PIC and MAT, thereby reducing instances of non-compliance and enhancing legal certainty.

At the grassroots level, capacity-building initiatives empower local communities and BMCs to conserve biological resources, safeguard traditional knowledge, and effectively participate in ABS processes. These efforts facilitate equitable benefit-sharing while strengthening local governance systems. Capacity building also contributes significantly to improving biodiversity documentation and management through activities such as the preparation and updating of PBRs, monitoring the use of biological resources, and reporting to the NBA and SBBs/UTBCs.

Strengthening capacity across all levels of governance is therefore critical for the effective implementation of the BD Act and the Nagoya Protocol.

India's Efforts — *Awareness, Capacities and Cooperation*

Training- of-trainers programmes, capacity-building for BMCs, stakeholder consultations, and integration of biodiversity governance into academic and training curricula

Development and implementation of a structured capacity-building and communication strategy based on comprehensive stakeholder analysis.

A strategy that combines one-way communication tools such as guidelines, factsheets, advisories with interactive approaches such as trainings, workshops, consultations, dialogue forums, and exposure visits.

Strengthening BMCs through simplified materials, local language communication, and hands-on training.

Development and dissemination of knowledge products including guidelines, manuals, training modules, and digital resources on BMCs, ABS, and PBRs

Targeted engagement with industry and sectoral associations through communication and consultative meetings

Engagement with the Environmental Information, Awareness, Capacity Building and Livelihood Programme (EIACP) of MoEFCC, collaboration with national training institutions, internship Programmes, and large-scale preparation and digitalization of PBRs with participation from students, researchers and local communities.

National Initiatives



Crafting of Bamboo , Arunachal Pradesh
Credit: Arunachal Pradesh SBB

International Initiatives

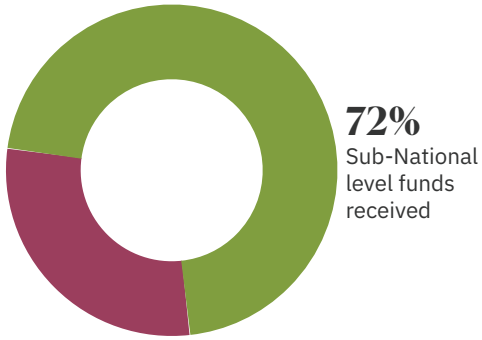
International initiatives such as the ASEAN–India Cooperation Project (2017–2021), UNEP-GEF ABS Project (2012–2020), Indo-German ABS Project (2016–2020), CEBPOL, and the UNDP Biodiversity Finance Initiative (BIOFIN) and the ongoing GoI–UNDP–GEF Biodiversity Project (2025–2030).

Initiatives such as the ASEAN–India Cooperation Project and international exchange Programmes. Officials from countries including Nepal, Indonesia, Singapore, Malaysia, and Norway have participated in learning visits to understand India's ABS framework and regulatory practices, promoting peer learning and international cooperation.

Biodiversity Finance *and* Resource Mobilisation

India's biodiversity governance architecture is anchored in the updated National Biodiversity Strategy and Action Plan (NBSAP) 2024–2030, supported by a monitoring framework and further strengthened through BIOFIN-led financial planning. Together, these initiatives provide a comprehensive and integrated framework for biodiversity conservation and sustainable use.

Despite this progress, India's biodiversity finance analysis highlights a significant resource gap of USD 6.5 billion. Addressing this gap will require enhanced and diversified resource mobilisation strategies, including increased public investment aligned with biodiversity priorities, leveraging private sector and CSR contributions, strengthening ABS based financial flows, and accessing international climate and biodiversity finance through multilateral and bilateral channels.



Winnowing of grains, Tamilnadu
Credit: Care Earth Trust



Funding sources at Sub-National Government Level



Budgetary support from the Indian Government have played a critical role in strengthening institutional capacity, supporting regulatory processes, and operationalising ABS mechanisms at national and sub-national levels.

Strategic resource mobilization combining domestic and international sources will be central to achieving long-term biodiversity and development outcomes. Strengthening financial planning, tracking, and accountability mechanisms will further enhance investment effectiveness and support the mainstreaming of biodiversity across sectors. Recognising that, India has mobilized resources to the tune of USD 15.50 million for implementing the CBD and Nagoya Protocol on ABS through the Global Environment Facility funded projects and bilateral and multilateral partnerships. These efforts have contributed to strengthening institutional capacity, policy frameworks, and digital systems related to ABS.

06

A Showcase of Achievements

As of October 2026, the NBA has disbursed approximately USD 20 million among 27 States (sub-national governments) and 3 Union Territories representing their respective shares of ABS contributions.

The remaining USD 1.11 million has been utilised to support research and other biodiversity conservation activities.



A display of vegetable diversity in Assam
Credit: Assam SBB

A basket of vegetables

The NBA received USD 300,000 from M/s Advanta Enterprises Ltd. (formerly M/s UPL Limited) towards ABS for the utilisation of genetic resources associated with eight hybrids of Cauliflower (*Brassica oleracea var. botrytis*), five hybrids of hot pepper (*Capsicum annuum*), five hybrids of Okra (*Abelmoschus esculentus*) and six hybrids of Tomato (*Solanum lycopersicum*).

An amount of INR 2.80 crore (USD 0.29 million) was allocated among 27 SBBs and 3 UTBCs based on the cultivation of the relevant horticultural crops. Additionally, INR 2.01 lakh (USD 2100) was allocated to ICAR–Indian Institute of Horticultural Research (ICAR-IIHR) for research, bio-survey, conservation and taxonomic capacity-building.



Red Sanders with an illustration of handcrafted dolls of South India , one of its traditional uses
Credit: Varsha Uyirmei

A splash of Red

The iconic Indian Endemic Red Sanders

ABS collected since 2014:
USD 12.5 Million

ABS Disbursed
- Over USD 10.7 Million to Andhra Pradesh Forest Department and Andhra Pradesh State Biodiversity Board
- Over USD 1.55 Million to Forest Departments of Tamilnadu, Telangana, Karnataka, Maharashtra and Odisha
- Over 220 farmers benefitted
- Supported Red sanders research projects INR 3.84 crore (USD 0.4 million)

The Wild Flora of Madhya Pradesh

Broom Creeper or Ink Berry (*Cocculus hirsutus*) is traditionally valued in indigenous medicine.

M/s. Sun Pharmaceutical Industries Ltd. applied to the NBA in 2017 seeking approval for access to the bioresource. Upon approval and subsequent collection of the plant from forest areas of Chhindwara District, it was evident that the plant demonstrated promising therapeutic potential for dengue treatment. It was therefore taken up for research and product development.

Considering the commercial potential, NBA determined an upfront payment of approximately USD 4,650 under the ABS Regulations, 2014. The request for waiver made was not accepted, reaffirming benefit sharing as a mandatory obligation. Mutually agreed terms were finalised, incorporating both monetary (upfront payment) and non-monetary components, including conducting biodiversity awareness programmes at the BMC level. The agreement with the NBA was then executed in 2019.

As per BD Rules 2004 and ABS Regulations 2014, 95% of this amount (USD 4,417) was transferred to the Madhya Pradesh Minor Forest Produce Cooperative Federation in 2020 for conservation and community development activities, while 5% was retained by NBA.



Wildlife Week Commemoration, Madhya Pradesh
Credit: Madhya Pradesh SBB

This example from the forested lands of Madhya Pradesh demonstrates how a traditional medicinal bioresource can transition into modern pharmaceutical use within a framework that ensures compliance, equity, and conservation outcomes.

Benefits from *Bacillus* in Maharashtra

Dapur Village, Sinnar Taluk, Nashik District

• Soil-derived microbial resource - *Bacillus coagulans*

• Significant probiotic potential and utilised for the development of commercial products

• M/s Advanced Enzyme Technologies Limited applied to the NBA for approval in 2019 and after consultations with the BMC, an agreement was signed between the NBA and the applicant in 2022

• Benefit sharing amount realised - USD 74,000

• In accordance with BD Rules 2004 and ABS Regulations 2014, 95% (USD ~70,000) transferred to the SBB for disbursal to the BMC which was subsequently completed.

• Funds utilized by BMC for activities such as preparation of Biodiversity Management Plan, establishment of medicinal plant nurseries, and site-specific plantation initiatives.

Matunga (Mumbai) and Wada Tehsil, Palghar District

• Soil-derived microbial resource - *Bacillus clausii, Bacillus coagulans, and Bacillus licheniformis*

• Significant probiotic potential and utilised for the development of probiotic formulations and Vitamin K2-7 products

• M/s. Synergia Life Sciences Private Limited applied to the NBA for approval and was subsequently granted approval with mutually agreed terms.

• Benefit sharing amount realised - USD 0.56 Million

• In accordance with BD Rules 2004 and ABS Regulations 2014, 95% (USD 0.53 Million) distributed to 84 BMCs in Wada Tehsil with 2.5% each retained by the NBA and Maharashtra SBB



Distribution of ABS in Dapur, Maharashtra
Credit: Maharashtra SBB



Winnowing of grains
Credit: Care Earth Trust

A Field's Residue in Circular Economy in Uttar Pradesh

Agricultural residue, though widely available, constitute a biological resource under the BD Act, 2002. The residue was sourced from Narrau Village, Akrabad (Kaul Taluk), Aligarh District, by Indian Oil Corporation Limited for research aimed at improving pre-treatment methods for second-generation (2G) bioethanol production.

The research strengthens biomass conversion technologies for second-generation (2G) ethanol production by improving the efficient utilisation of agricultural residues. This not only mitigates environmental issues such as stubble burning but also promotes circular bioeconomy approaches and contributes to India's renewable energy and emission reduction commitments.

Indian Oil Corporation Limited submitted applications to the NBA seeking prior approval for research access. The approval process involved consultation with the Uttar Pradesh SBB and the BMC of Narrau Gram Panchayat, ensuring representation of local stakeholders.

An upfront payment of USD 19,219 was determined as per BD Rules 2004 and ABS Regulations 2014. Out of this, USD 18,258 (95% of the ABS amount) was released to the Uttar Pradesh State Biodiversity Board and USD 480 each was retained by the NBA and the SBB towards administrative charges.

These funds are utilised for conservation of biological resources, promotion of biodiversity- based livelihoods, and socio-economic development activities at the local level.



BMC Meeting in Progress, Telangana
Credit: Telangana SBB

From Soil Bacteria to Benefit Sharing in Telangana

A private sector company, M/s Valagro Biosciences Private Limited, selected 9 crops in 11 villages of 3 different districts of Telangana, as part of their work on biofertilizers.

Following site visits, as a next step they integrated the information in application form and applied to NBA under Access category. Upon obtaining approval, they collected soil samples from villages and shared their vision to the BMC members. After completing research on the samples, they identified 10 important bacteria in it.

The company next applied for approval to develop a new product with the application of these bacteria under the Benefit Sharing Category. Post approval, 5 products were launched in the Indian market.

Since this is under the Benefit Sharing Category, a percentage of the profits was paid to the NBA, which then transferred these proceeds to the Telangana State Biodiversity Board.

In accordance with the BD Act and BD Rules, an amount (approximately USD 26,000) was distributed to the respective BMCs. These BMCs utilized the amount for various purposes such as biodiversity awareness, cultivation of medicinal plants, biodiversity parks, bird habitat restoration, installation of benches and bus shelters in villages, and biodiversity paintings on school walls and panchayat office walls.

HiBiSCUS and Green Livelihoods in Himachal Pradesh

Himachal Pradesh is home to floral diversity - it is also now home to a collaborative model, involving the State Biodiversity Board, corporate partners (such as M/s Dabur India Ltd.), local farming communities and the Forest Department. By combining commercial cultivation of medicinal and aromatic plants (MAPs) with targeted conservation financing, this initiative bridges economic livelihood generation with ecological sustainability.

The Green Livelihood Initiative

Designed to promote the commercial cultivation of medicinal plants tailored to different agro-climatic zones, addressing supply chain sustainability for the Ayurvedic industry while boosting rural incomes.

The target - Distribution of 1.2 million plants of elite germplasm free of cost to farmers annually over a decade.

Under a Memorandum of Association (MoA), M/s Dabur India Ltd. successfully provided and distributed approximately 350,000 saplings of diverse high-value species to progressive farmers.



BMC Meeting in Progress, Himachal Pradesh
Credit: Himachal Pradesh SBB

HiBiSCUS *(Himachal Biodiversity Stakeholder-led Conservation Unified Scheme)*

To counter the pressures of wild harvesting and safeguard local biodiversity, the scheme integrates conservation with resource development, with a strong gender equality component by engaging Women's Self Help Groups and Mahila Mandals.

An allocation of USD 206,663 per year dedicated to medicinal plant conservation, sustainable harvesting, nursery development and the documentation of traditional knowledge.

Equitable Benefit-Sharing (Monetary & Non-Monetary):

Non-monetary: Free supply of high-grade elite germplasm, technical capacity building, and traditional knowledge documentation

Monetary/Conservation Investment: Direct injection of funds (USD 133,298) into forest divisions and structured annual spending (USD 206,663) for habitat protection.

Market Integration & Livelihood Security: By partnering with major Ayurvedic players like Dabur, farmers receive assured forward linkages, mitigating market risks for medicinal crop cultivation.

Sustainable Wild-Stock Management: Cultivation of species like Kuth, Atich, and Pushkarmool in local nurseries reduces heavy anthropogenic pressures on fragile Himalayan ecosystems.

Reviving Traditional Medicinal Plant Enterprise in Bihar

Recognising growing demand for medicinal plant raw material in the Ayurvedic sector, residents of Pirpainti have developed a procurement network of local collectors and farmers across surrounding villages of ten BMCs.

Eight traders have entered into an agreement with the Bihar State Biodiversity Board to collect, process, and market medicinal plant-based resources

The local traders function primarily as an aggregator and the procurement network comprises approximately 25 collectors, predominantly women. Collectors gather medicinal plants from agricultural fields and adjoining areas and supply them to the traders for cleaning, drying, storage and marketing — a decentralised value chain linking rural collectors to herbal medicine markets in Deoghar, Kolkata, Patna and local markets.



Women processing Fennel Seeds

The Plethora of Resources in Assam

M/s. Emami Limited – Manufacturing Sector in Assam

Accessed biological resources such as aloe vera, neem, turmeric, green tea, cucumber, coconut, and coriander for use as industrial inputs in cosmetics, healthcare products and edible oils.

Through repeated notices, valuation tables and application of the updated regulations, ASBB created a standard corporate compliance pathway that now functions as a model code of conduct for FMCG, Ayurveda and food industries.

M/s. Nahar Organics – Trade and Aggregation of Biological Resources

Accessed a wide range of organic spices, medicinal herbs and agro-commodities such as turmeric, ginger, black pepper, star anise, bay leaf, Brahmi and Amla from biodiversity-rich regions of Assam and other North-Eastern states for aggregation and supply to food, pharmaceutical and cosmetic industries.

The purpose of access was commercial trade and export for commercial utilisation, a core and indispensable element of the biological resource supply chain, linking local collectors and farmers to national and international markets. Such procurement and trading for commercial utilisation requires prior intimation and regulatory oversight by the SBB.

Accordingly, under the ABS framework, traders like Nahar Organics are treated as ABS stakeholders, with benefit-sharing structured through turnover-linked MAT and PIC operationalised through sourcing arrangements with farmers and BMCs.

The Assam State Biodiversity Board, supported by NGOs, has encouraged this sector by issuing trader-specific interpretations of ABS rules and promoting traceability-based codes of conduct, standard formats and model MAT structures, thereby embedding ABS compliance across the trading segment of the bio-economy.



Hajong Lake, Biodiversity Heritage Site, Assam
Credit: Assam SBB



M/s. Patanjali Ayurved Ltd. – Inter-State Manufacturing and Sourcing

Accessed plant-based ingredients such as aloe vera, neem, tulsi, tea, medicinal herbs and palm- oil related crops in the manufacture of Ayurvedic medicines, personal care products and food items, alongside large-scale oil-palm expansion in Assam.

The purpose was commercial production and agro- industrial expansion, which required disclosure of the origin of all biological inputs and compliance with ABS where Assam-sourced resources were involved.

ASBB insisted that Patanjali submit ABS declarations, ensure PIC through verification of local sourcing via BMCs, and apply MAT where applicable so that benefits flow to biodiversity funds and community conservation. By mandating disclosure, traceability and ABS reporting, ASBB promoted company-wide due-diligence standards that now serve as best-practice guidance for multi-state bio-resource users under ABS system.

Access to Agarwood (*Aquilaria malaccensis*)

Agarwood (*Aquilaria malaccensis*) in Assam is accessed predominantly from homestead plantations, tea-garden intercropping systems and private agroforestry holdings located in districts such as Golaghat, Jorhat and Sivasagar, which together account for more than 114 million trees, representing over 80 per cent of India's agarwood plantation stock.

The biological resource, comprising resin- bearing wood, chips and agar oil, is utilised for the manufacture of perfumes, incense, traditional medicines, cosmetics and other high-value fragrance products for domestic consumption and export.

In accordance with the ABS Regulations, 2014 agarwood has been notified as a high-economic- value biological resource and is therefore subject to up-front and turnover-linked benefit-sharing obligations, bringing growers, processors and traders within the ABS framework.

The access and utilisation of agarwood operate through a regulated value chain involving growers, traders, processors and exporters, supported by plantation registration, Legal Procurement Certificates and CITES-compliant permits, which together ensure traceability and PIC.

The Assam SBB, in coordination with the Forest Department and partner organisations, has promoted standardised registration, supply- chain documentation and ABS valuation procedures, thereby encouraging the adoption of codes of conduct, guidelines and best practices for sustainable and legally compliant agarwood trade.

The Forest's Wealth in Tripura

Trade of Non-Timber Forest Products (NTFPs) in Tripura involves access and commercial utilisation of bioresources such as broom grass (*Thysanolaena maxima*), kanak kaich bamboo, gandhaki and other forest products sourced from areas managed by BMCs and JFMCs.

Traders procure these bioresources for trade in regional and national markets and for value addition. Despite their common availability and trade, traders are required to obtain prior approval from the State Biodiversity Board. Therefore, traders act as ABS stakeholders and enter into MAT with the Tripura Biodiversity Board (TBB).

The system follows a predefined benefit-sharing formula: 5% to JFMCs, 2% to BMCs and 1% to the State Biodiversity Fund, leading to increased ABS receipts and improved transparency after streamlining in 2019.TBB promotes standardised procedures, model resolutions, traceable supply chains and clear valuation norms, strengthening sustainable and equitable bioresource trade.



Bengal Ginger (Zingiber rubens), native to North East India



Saffron (Crocus sativus), Himachal Pradesh
Credit: Himachal Pradesh SBB

07

Emerging Pathways

Challenges

Despite significant progress, several interrelated challenges continue to affect the effective implementation of the ABS framework in India. A key constraint is the limited understanding of ABS measures in provider countries, along with evolving disclosure and due diligence requirements among users in India.

At the operational level, the process of generating IRCCs remains time-intensive. Approvals under the BD Act are granted through agreements based on MAT, and the subsequent extraction and standardisation of information into IRCC formats requires additional effort. The incomplete or inconsistent submission of information leads to delays in processing of special consideration of ABS applications under Article 8 of the Nagoya Protocol.

Another major challenge relates to traceability of biological resources, particularly where access occurs through markets, value chains, traders or intermediaries. In such cases, establishing the origin of resources and identifying rightful benefit claimers becomes difficult affecting the sharing of benefits with beneficiaries.

These issues are further reinforced by broader systemic constraints, such as



Limited awareness and technical understanding of ABS procedures among users and local stakeholders



Fragmented and minimal funding, along with limited private sector participation

Long timelines in research, product development, and commercialisation, which delay benefit- sharing outcomes





Coordination gaps across institutions involved in ABS implementation

Traceability of biological resources



In addition, India's linguistic, cultural, and geographic diversity creates challenges in communication, standardisation of procedures, and consistent implementation of ABS across regions.



Gray Sibia, Meghalaya
Credit: Meghalaya SBB

Future Priorities

To address these challenges and strengthen implementation in line with the Nagoya Protocol, India is prioritising the development of a simplified, ABS end-to-end portal to enhance traceability, efficiency, and user compliance.

Efforts are underway to improve inter-agency coordination, and expand targeted capacity-building and awareness programmes, including on DSI governance, disclosure obligations, and international ABS frameworks. Continued engagement with research institutions, academia, industry and civil society, along with strengthened international cooperation and peer learning, will further support effective implementation. It is imperative to monitor how benefit-sharing proceeds are utilized to determine whether they are being reinvested in conservation efforts.

It is also recognized that active involvement of financial and institutional enablers is critical, to ensure sustained and predictable funding. It is also evident that dedicated digital infrastructure and enhanced private sector participation would improve compliance outcomes.



Western Ghats, Tamilnadu
Credit: Care Earth Trust



Overall, strengthening institutional capacity, ensuring financial sustainability and enhancing digital systems will be critical for advancing India's Access and Benefit Sharing framework and maintaining its alignment with the Nagoya Protocol and the objectives of the CBD.

With a comprehensive legal framework, well- established institutions, and active community participation, India has emerged as a global leader in ABS implementation, demonstrating how equitable benefit-sharing can effectively support biodiversity conservation while enhancing the livelihoods of local communities, farmers, and custodians of traditional knowledge.

In summary, while continuing to uphold biodiversity conservation as one of the pathways of the country's progress, India would undertake calibrated steps to consolidate its head start in ABS implementation.

Thirukkural 322

Sharing resources with other living beings with compassion is the greatest wisdom

From Thirukkural, the ancient Indian treatise by Sage Tiruvalluvar , between 300 BCE and 300 CE

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