



Biodiversity..... Future Secured



National Biodiversity Authority



XIth Conference of Parties
CONVENTION ON BIOLOGICAL DIVERSITY
HYDERABAD INDIA 2012



Snapshot

Biological Diversity Act (Enacted in 2002) **Biological Diversity Rules (Notified in 2004)**

Status of Implementation **July 2012**

Number of State Biodiversity Boards established	26
Number of Biodiversity Management Committees formed	32,918
Number of States that have notified state-wise Rules	15
Number of States that have notified lists of plants & animals which are on the verge of extinction.	14
Number of People's Biodiversity Registers documented	1122
Number of Biodiversity Heritage Sites notified	4
Number of Guidelines / Notifications issued	4
Current list of Normally Traded Commodities	190
Number of Benefit Sharing Agreements signed	105
Number of Publications by NBA	31



National Biodiversity Authority





Biodiversity

Biodiversity encompasses the variety of all life on earth including terrestrial, marine and aquatic ecosystems. It comprises diversity at three levels: genetic diversity (within species), species diversity (between species) and ecosystem diversity.

India is one of the 17 mega-biodiversity countries with 2.4 per cent of the global land area and 4 per cent of water. It accounts for 7 to 8 per cent of the recorded species of the world. So far, 45,968 species of plants and 91,364 species of animals have been documented. Over 5,650 microbial species have been described. India is one of the eight primary centers of origin of cultivated plants with about 375 closely related wild species including rice, pulses, millets, vegetables, fruits and fiber plants. There are nearly 255 breeds of animals such as cattle, sheep, goat, camel, horse and poultry found in India. India is also rich in cultural diversity and in traditional knowledge available with tribal communities.

Economic potential of Biodiversity

Segment	2009 - 10		2010-11	
	Exports Rs Crore (US \$ Million)	Percentage Share (%) in Biotech industry	Exports Rs Crore (US \$ Million)	Percentage Share (%) in Biotech Industry
Bio Pharma	4767.7 (1081.7)	54	5535.4 (1255.6)	52
Bio Services	2507 (569)	95	2986.3 (677.4)	92
Bio Agri	58.1 (13.2)	3	74.4	3
Bio Industrial	124.1 (28.2)	22	150.2 (34.1)	24
Bio Informatics	73.9 (16.8)	32	106.02 (24)	42
Total	7530.8 (1751)	53	8852.3 (2008)	51.3

(Source: ABLE, 2008)



The Act

The Government of India enacted the Biological Diversity Act in 2002 and notified the Biological Diversity Rules in 2004. The Biological Diversity Act has 12 Chapters and 65 Sections and was published on 5 February, 2003. The Biodiversity Rules were notified on 15 April, 2004.

The Act is implemented at national, State and local levels, through a decentralized three tier system. At the National level, the National Biodiversity Authority (NBA) was established by Government of India under Section 8 of the Act. The NBA is an autonomous and statutory body performing enabling / facilitative, regulatory and advisory role to relevant agencies and Ministries of Government of India on issues of conservation of biodiversity, its sustainable use and ensuring fair and equitable sharing of benefits arising out of such use. The NBA operates through consultative process involving expert committees and stakeholders.

At State level, State Biodiversity Boards (SBBs) are established by the State Governments as per Section 22 of the Act, while at local level the Biodiversity Management Committees (BMCs) are constituted by the Local Bodies as per Section 41 of the Act.

National Biodiversity Authority (NBA)

The functions of NBA include:

- Creating an enabling environment, as appropriate, to promote conservation and sustainable use of biodiversity.
- Advising the Government of India on matters relating to conservation of biodiversity, sustainable use of its components and equitable sharing of benefits arising out of utilization of biological resources.
- Regulating activities and issue guidelines for access to biological resources and for fair and equitable benefit sharing in accordance with the Sections 3, 4 and 6 of the Biological Diversity Act, 2002. Certain individuals / nationals / organizations require prior approval of NBA for obtaining biological resources and/or associated knowledge for use.
- Taking necessary measures to oppose the grant of intellectual property rights in any country outside India on any biological resource obtained from India or knowledge associated with such biological resource derived from India illegally.
- Advising the State Governments in the selection of areas of biodiversity importance to be notified as heritage sites and suggest measures for their management.



The Rules



Biological Diversity Rules, 2004



To implement the Biological Diversity Act 2002, Rules have been notified in 2004. The salient features of the BD Rules 2004 are:

- Procedures for appointment of Chairperson and Members of the Authority, conduct of authority meetings, and general functions of the authority are described in the Rules 3-8, 10 and 12 respectively.
- The process to regulate activities for access to biological resources and associated traditional knowledge in accordance with the Sections 3 (Access to Biological Resources), 4 (Transfer of Research Results) and 6 (Seeking 'No objection Certificate' for obtaining patent) under the Biological Diversity Act, 2002, are given in Rule 14, 17 and 18 respectively.
- The Procedure to revoke written agreements, action in prohibiting access and recovery of damages (Rule 15)
- Restricting access of endangered, endemic and rare species, restricting access in case of adverse environmental impact, genetic erosion, ecosystem function and purposes contrary to national interest as well as international agreements (Rule 16)
- Imposing terms and conditions for ensuring equitable sharing of benefits on access, transfer of results of research, application for patent / IPR claims (Rule 20)
- Constitution of Biodiversity Management Committee (BMC) and Preparation, maintenance and validation of People's Biodiversity Register (PBR) in consultation with the local people should be done as per Rules 22(2) and 22(6) respectively.
- Appeal for settlement of disputes between NBA and SBB or between SBBs are dealt under Rules 23.

The Rules also have prescribed formats viz, Form-I (Access to Biological resources and associated traditional knowledge), Form-II (Transfer of Research results), Form-III (Seeking 'No objection Certificate' for obtaining patent) and Form-IV (Seeking approval for Third Party Transfer)



The SBBs

State Biodiversity Boards (SBBs)

The SBBs are established by the State Governments by official gazette notification in accordance with Section 22 of the Act. For the seven Union Territories, NBA or its authorized body exercises the powers and functions of SBB.

The SBBs are established by the State Governments with a Chairperson, five ex officio members representing the concerned departments and five members appointed from experts in matters relating to conservation of biological diversity, sustainable use of biological resources and equitable sharing of benefits arising out of the use of biological resources.

The functions of SBBs include:

- ☞ Advising the State Governments, subject to guidelines issued by the Central Government, on matters relating to conservation of biodiversity, sustainable use of its components and equitable sharing of benefits arising out of utilization of biological resources.
- ☞ Regulating by granting approvals or otherwise requests for commercial utilization or bio-survey and bio-utilization of any biological resource by Indians.
- ☞ Performing such other functions as necessary to carry out the provisions of this Act or as prescribed by the State Government.

So far, 26 States have established the Biodiversity Boards and 15 States have notified the Rules as of July 2012.



The BMCs

Biodiversity Management Committees (BMCs)

According to Section 41 of the Act, every local body shall constitute the BMC within its area for the purpose of promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of landraces, folk varieties and cultivars, domesticated stocks and breeds of animals and microorganisms and chronicling of knowledge relating to biological diversity.

The functions of BMCs include:

- ☞ Preparing, maintaining and validating People's Biodiversity Register (PBR) in consultation with the local people.
- ☞ Maintaining a Register giving information about the details of access to biological resources and traditional knowledge granted, details of the collection fee imposed and details of the benefits derived and the mode of their sharing.
- ☞ Advising on any matter referred to it by the State Biodiversity Board or Authority for granting approval, to maintain data about the local vairs and practitioners using the biological resources.

So far 32,918 BMCs have been constituted across India. National guidelines for BMC are being finalized to facilitate effective functioning of the BMCs. So far, only two states have notified BMC Guidelines and Rules.





The Funds

Biodiversity Fund

National, State and Local level biodiversity funds are established under Sections 27, 32 and 43 of the Act respectively. The funds are intended for channeling benefits to bonafide claimers and for conservation and promotion of biological resources and / or the associated knowledge and socio-economic development of these areas.

National Biodiversity Fund (NBF)

As per the Section of 27(1) of the Act any grants and loans, all charges, royalties received by the NBA may be called National Biodiversity Fund. The fund shall be applied for channeling benefits to the benefit claimers, conservation and promotion of biological resources and development of areas from where such biological resources or knowledge associated thereto has been accessed and for socio-economic development of areas in consultation with the local bodies.

State Biodiversity Fund (SBF)

The State Biodiversity Fund created as per Section 32(1) of the Act receives any grants and loans made to the SBB / any grants or loans made by the NBA / all sums received by the SBB from other sources may be decided upon by State Government as State Biodiversity Fund. The SBF shall be used for the management and conservation of heritage sites, compensating or rehabilitating any section of the people economically affected by notification, conservation and promotion of biological resources and socioeconomic development of areas from where such biological resources or knowledge associated thereto has been accessed.

Local Biodiversity Fund (LBF)

The Local Biodiversity Fund is created at every area notified by the State Governments where any institution of self-Government is functioning and there shall be credited thereto, any grants or loan made by NBA, fees / levy charges by way of collection fees from any person for accessing or collecting any biological resources for commercial purposes. The LBF shall be used for conservation and promotion of biodiversity in the areas falling within the jurisdiction of the concerned local body and for the benefit of the community.



The PBRs

People's Biodiversity Registers (PBRs)

The main function of the BMC is to prepare People's Biodiversity Register in consultation with local people. The Register shall contain comprehensive information on the availability and knowledge of local biological resources, their medicinal or any other use or any other traditional knowledge associated with them.

The PBRs focus on participatory documentation of local biodiversity, traditional knowledge and practices. They are seen as key legal documents in ascertaining the rights of local people over the biological resources and associated traditional knowledge.

So far, 1122 PBRs are developed in India in 10 states with the participation of range of stakeholders. National Biodiversity Authority has issued guidelines on PBRs in 2009.

Step - wise PBR Preparation Process

- Step 1: Formation of Biodiversity Management Committee (BMC)
- Step 2: Sensitization of the public about the study, survey and possible management
- Step 3: Training of members in identification and collection of data on biological resources and traditional knowledge.
- Step 4: Collection of data. Data collection includes review of literature on the natural resources of the districts, Participatory Rural Appraisal (PRAs) at village level, household interviews, individual interviews with village leaders and knowledgeable individuals, household heads, key actors of the Panchayat raj institutions and NGOs and direct field observations
- Step 5: Analysis and validation of data in consultation with technical support group and BMC
- Step 6: Preparation of People's Biodiversity Register
- Step 7: Computerization of information and resources



The Heritage



Biodiversity Heritage Sites (BHS)



Under Section 37 of Biological Diversity Act, 2002 the State Government in consultation with local bodies may notify in the official gazette, areas of biodiversity importance as Biodiversity Heritage Sites. The National Biodiversity Authority issued guidelines for the selection and management of BHS in 2009.

Definition of BHS

“Biodiversity Heritage Sites” are well defined areas that are unique, ecologically fragile ecosystems - terrestrial, coastal and inland waters and, marine having rich biodiversity comprising of any one or more of the following components: richness of wild as well as domesticated species or intra-specific categories, high endemism, presence of rare and threatened species, keystone species, species of evolutionary significance, wild ancestors of domestic/cultivated species or their varieties, past pre-eminence of biological components represented by fossil beds and having significant cultural, ethical or aesthetic values and are important for the maintenance of cultural diversity, with or without a long history of human association with them. Areas having any of the following characteristics may qualify for inclusion as BHS.

Criteria for BHS

- Areas that contain a mosaic of natural, semi-natural, and manmade habitats, which together contain a significant diversity of life forms.
- Areas that contain significant domesticated biodiversity component and /or representative agro ecosystems with ongoing agricultural practices that sustain this diversity.
- Areas that are significant from a biodiversity point of view as also are important cultural spaces such as sacred groves/trees and sites, or other large community conserved areas.
- Areas including very small ones that offer refuge or corridors for threatened and endemic fauna and flora, such as community conserved areas or urban greens and wetlands.
- All kinds of legal land uses whether government, community or private land could be considered under the above categories.
- As far as possible those sites may be considered which are not covered under Protected Area network under the Wildlife Protection Act 1972 as amended.
- Areas that provide habitats, aquatic or terrestrial, for seasonal migrant species for feeding and breeding.
- Areas that are maintained as preservation plots by the research wing of Forest department.
- Medicinal Plant Conservation Areas.



The Roles

The important roles of the Central and State Governments

As per Section 36 of the Act the important duties of the Central and State Governments are:

- ✓ Developing national strategies, plans, programmes for the conservation, promotion and sustainable use of biological diversity.
- ✓ Issuing directives to the concerned State Governments to take immediate ameliorative measures for protection of biodiversity rich habitats, threatened by overuse, abuse or neglect.
- ✓ Integrating of the conservation, promotion and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies. Endeavour to respect and protect the knowledge of local people relating to biological diversity, as recommended by the NBA.
- ✓ Assessing the impact of projects on environment and biodiversity, and regulate, manage or control the risks or adverse impact of use and release of living modified organisms on conservation; and sustainable use of biological diversity and human health.

The Central Government may, in consultation with NBA:

- (a) notify threatened species and prohibit or regulate their collection, rehabilitation and conservation;
- (b) designate institutions as repositories for different categories of biological resources; and
- (c) exempt certain biological resources as normally traded as commodities.

State Governments, in consultation with the local bodies, may notify biodiversity heritage sites, and frame Rules for management and conservation of all the heritage sites (in consultation with Central Government) and launch schemes for compensation / rehabilitation of affected people.