



An Introduction to the Biological Diversity Act, 2002

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Biological diversity or Biodiversity in short, has no single standard definition. A simple definition of biodiversity defines it as the totality of genes, species, and ecosystems of a region. The United Nations Convention on Biological Diversity, 1992 (CBD) defines 'biological diversity' as the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. The Biological Diversity Act, 2002 (the "Act") adopts the definition given by the CBD.

India's Biodiversity

Biodiversity found on Earth today is the result of 3.5 billion years of evolution. India is the seventh largest country in the world and Asia's second largest nation with an area of 3,287,263 square km. It has a land frontier of some 15,200 km and a coastline of 7,516 km. India is one of the top twelve megadiversity¹ countries and has two of the total eighteen 'biodiversity hotspots' in the biodiversity rich areas of the Western Ghats and Eastern Himalayas. According to a Ministry of Environment and Forests Report (1999), the country is estimated to have over 49,219 plant species and 81,251 animal species representing 12.5% of the world's flora and 6.6% of its fauna.

International concern over depleting biodiversity

The international community's concern about the unprecedented loss of biodiversity emerged at the United Nations Conference on the Human Environment held in Stockholm in 1972. In 1987, the World Commission on Environment and Development enunciated the principle of "sustainable development" in its landmark report titled "*Our Common Future*" in which it observed that "humanity has the ability to make development sustainable to ensure that it meets the needs of the present generation without compromising the ability of the future generations to meet their own needs". "Sustainable development" became the theme of the United Nations Conference on Environment and Development (UNCED), held at Rio de Janeiro in June 1992. In the 20 years between the Stockholm and Rio summits, various international conventions were promulgated to deal with the conservation of the earth's species, but all have been fundamentally flawed in one respect or another. Consequently, it became apparent that a global agreement specifically addressing the problem of ecosystem destruction was needed. In November 1990, the United Nations Environment Programme (UNEP) began the first of seven negotiating sessions whose objective was to produce an international treaty on the conservation of biological diversity. The CBD was presented at the Earth Summit in Rio de Janeiro in

1. The megadiversity country concept recognizes that, of all the countries on Earth, only a small handful account for a major portion of life on Earth, including terrestrial, freshwater and marine life. Dr. Russell Mittermeier first developed this concept in 1988, based on a preliminary analysis of primate conservation priorities. Subsequent analysis of other mammals, birds, reptiles, amphibians, plants and selected groups of insects led to the conclusion that 17 countries qualified for megadiversity status. These 17 countries by themselves accounted for more than two-thirds of all life forms and for the vast majority of tropical rainforests, coral reefs and other priority systems.



June 1992, where it was signed by 153 nations including India². The CBD came into force from the 29th of December 1993.

India legislates to conserve its depleting Biodiversity

In 1994, India started its preliminary work to give effect to CBD with a central enactment. An expert committee was constituted under the chairmanship of Prof. M. S. Swaminathan, which submitted its report in 1997. After circulation of several draft notes and cabinet notes, a draft Bill was introduced in the Lok Sabha and in December 2002, the Parliament passed the Bill. On 1st July 2004 the Biological Diversity Act, 2002 came into full force and effect. The Central Government also notified the Biological Diversity Rules, 2004 (Hereinafter the “Rules”).

The Statement of Objects and Reasons appended to the Bill points out that the proposed legislation primarily addresses the issue concerning access to genetic resources and associated knowledge by Non Resident Indians, foreign individuals, institutions or companies, and equitable sharing of benefits arising out of the use of these resources and knowledge to the country and the people.

Authorities under the Act

The effect of any legislation will depend on the implementation of it. The Act envisages different Authorities to effectively implement the provisions and thereby regulate access to the biological resources. ‘Biological Resources’ has been defined in the Act to mean all plants, animals and micro organisms or parts thereof, their genetic material and by-products (excluding value added products) with actual or potential use or value but excludes human genetic materials. The only exception would be those biological resources notified by the Central

Government under section 40 of the Act. No such notifications have been issued as of now, the effect being that, all plants, animals or micro organisms or their parts should be accessed only in accordance with the provisions of the Act. The Act provides for the establishment of regulatory authorities at the National, State and local levels with clearly demarcated powers assigned to each of them to effectively implement the Act.

(a) National Biodiversity Authority

At the top of the hierarchy is the National Biodiversity Authority³ (Hereinafter the “NBA”) which will deal with matters relating to requests for access by foreign individuals including non resident Indians, institutions or companies, and all matters relating to transfer of results of research to any foreigner; imposition of terms and conditions to secure equitable sharing of benefits and approval for seeking any form of Intellectual Property Rights (IPR) in or outside India for an invention based on research or information pertaining to a biological resource obtained from India. The NBA has also been given the authority to take any measures necessary to oppose the grant of IPR’s in any country outside India or knowledge associated with the Biological Resources derived from India.⁴

The NBA is a body corporate having perpetual succession and a common seal with the power to acquire, hold and dispose of property, both movable and immovable, and to contract, and shall by the said name sue and be sued⁵. The NBA consists of a Chairperson, ten ex-officio members and five non-official members⁶. The NBA shall also have a fund called the National Biodiversity Fund which will be used to distribute benefits to the stakeholders, conservation and promotion of biological resources and socio economic development of areas accessed to obtain biological resources.⁷

2. India signed the CBD on 5th June 1992, ratified it on 18th February 1994 and brought it into force on 19th May 1994.

3. NBA is established under section 8(1) of the Act. Its functions are described in section 18 of the Act and Rule 12 of the Rules.

4. Section 18(4) of the Act.

5. Section 8(2) of the Act.

6. Section 8(4) of the Act.

7. Section 27 of the Act.



(b) State Biodiversity Board

At the State level are the State Biodiversity Boards⁸(SBB), which has the authority to deal with matters relating to access by Indians for commercial purposes and restrict any activity which violates the objectives of conservation, sustainable use and equitable sharing of benefits. However, as regards the Union Territories are concerned, the NBA shall perform all the functions of the SBB and the NBA has been vested with the power to delegate any and all of the powers to a person or a group of persons specified by the Central Government⁹.

Like the NBA, SBB is also a body corporate having perpetual succession and a common seal with the power to acquire, hold and dispose of property, both movable and immovable, and to contract, and shall by the said name sue and be sued¹⁰. The SBB consists of a Chairperson, five ex-officio members and five non-official members¹¹. The SBB shall also have a fund called the State Biodiversity Fund which will be used for management and conservation of heritage sites, compensating and rehabilitating people affected by notification of heritage sites, conservation and promotion of biological resources and socio economic development of areas accessed to obtain biological resources.¹²

(c) Biodiversity Management Committee

The most laudable step taken by this Act is the effort made to implement the Act at the grassroot level with the cooperation of the local people by setting up Biodiversity Management Committees (BMC) at the local level. The BMC's will be set up by institutions of self-government in their respective areas for conservation, sustainable use, documentation of biodiversity

and chronicling of knowledge relating to biodiversity. The BMC shall consist of a Chairperson and not more than six persons nominated by the local body, of whom not less than one third should be women and not less than 18% should belong to the Scheduled Castes/Tribes.¹³ The BMC shall be consulted by the NBA and the SBB on matters related to use of biological resources and associated knowledge within their jurisdiction. A fund called the Local Biodiversity Fund will be constituted at every area notified by the State Government¹⁴, presumably at all places where a BMC is established.

Access to Biological Resources and Regulatory Approvals

As regards the rights of the people to access biological resources, the Act has classified people into two categories: One, the resident Indian citizen and the other, the foreigners including the non-resident Indian citizens. The same rule applies to access of biological resources by associations, organizations and body corporates and the deciding factor is the 'citizenship and residential status of the shareholders or the management' in the entity.

All resident Indian citizens and entities made up of them can have free access to the biological resources with the exception of the commercial use of the biological resources. In case of commercial use of the biological resources, the said person or entity has to intimate the concerned SBB prior to making such access. However, the local people, vaidas and hakims are exempted from this requirement.¹⁵

In the case of foreigners or non resident Indian citizens, the person or the entity shall have to take

8. SBB's are to be established under section 22(1) of the Act. Its functions are described in section 23 of the Act.

9. Section 22(2) of the Act.

10. Section 22(3) of the Act.

11. Section 22(4) of the Act.

12. Section 32 of the Act.

13. Rule 22 of the Rules.

14. Section 43 of the Act.

15. Section 7 of the Act.



the prior approval¹⁶ of the NBA for access to biological resources.¹⁷ The only exception to this requirement will be in cases of collaborative research projects approved by the Central Government undertaken by institutions. However, such research projects will have to conform to the policy guidelines issued by the Central Government.¹⁸ The same is the case for any transfer of results of any research¹⁹ relating to biological resources or associated knowledge.

However, irrespective of the status of nationality all persons or entities shall have to obtain prior approval²⁰ from the NBA before applying to obtain any IPR protection connected in any way with the biological resources obtained from India. Considering the confidentiality requirements of patent applications, NBA approval can be obtained after applying to the appropriate authority but before the grant of Patents.²¹

Benefit Sharing and the element of Prior Informed Consent

All approvals from the NBA will be in the form of written agreements between the NBA and the Applicant. The Agreement will seek to share the benefits arising out of the activity in an equitable manner with the stakeholders or the benefit claimers. The NBA is authorized to determine the benefit sharing in accordance with any regulations made in that behalf or give effect to the same by providing for grant of joint ownership of IPR, technology transfer, monetary compensation etc.²² It is interesting to note that the Act expressly does not provide for Prior Informed Consent (PIC) from the stakeholders before access to the biological resources and associated knowledge. However, it may be noted that the language of section

21(1) of the Act implies that the PIC is a condition precedent for any approval to be granted by the NBA. Under section 21(1) of the Act, the NBA merely 'ensures' that the mutually agreed terms and conditions between the stakeholders and the applicants secure equitable sharing of benefits arising out of the accessed biological resources.

Responsibilities of the Central Government under the Act

The Central Government shall:

1. Develop national strategies, plans and programmes for the promotion, conservation and sustainable use of biological diversity²³. Such duty includes measures like:
 - a. identification and monitoring of areas rich in biological resources
 - b. promotion of *in situ* and *ex situ* conservation of biological resources
 - c. incentives for research,
 - d. training and public education to increase awareness with respect to biodiversity.
2. Integrate the conservation, promotion and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.²⁴
3. Take measures for **assessment of environmental impact** of projects, which are likely to have adverse effect on biological diversity in order to avoid or minimise such effects. Public participation in such assessment is to be encouraged in appropriate cases.²⁵

16. Approval Procedure provided for in Section 19(1) of the Act & Rule 14 of the Rules.

17. Section 3 of the Act.

18. Section 5 of the Act.

19. Approval Procedure provided for in Section 19(1) of the Act & Rule 17 of the Rules.

20. Approval Procedure provided for in Section 19(2) of the Act & Rule 18 of the Rules.

21. Section 6 of the Act.

22. Section 21(2) of the Act.

23. Section 36(1) of the Act.

24. Section 36(3) of the Act.

25. Section 36(4)(i) of the Act.



4. Regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology likely to have adverse impact on the conservation and sustainable use of biological diversity and human health.²⁶
5. Endeavour to respect and protect the knowledge of local people relating to biological diversity by such measures including registration of such knowledge at the local, State or national levels, and other measures for protection, including *sui generis* system.²⁷
6. Notify any species which is on the verge of extinction or likely to become extinct in the near future as a threatened species and prohibit or regulate collection thereof for any purpose.²⁸
7. Designate certain institutions as repositories for different categories of biological resources.²⁹

Biodiversity heritage sites

Any areas of biodiversity importance can be notified by the State Government, after consultation with the local bodies, as biodiversity heritage sites. The state government is also empowered to make rules, in consultation with the Central Government for the management and conservation of all the heritage sites.³⁰

Contravention of the Act and Penalties

All offences under this Act are cognizable and

non-bailable.³¹ However, there is a serious contradiction between section 58 and section 61, which states that no court can take cognizance of an offence under this Act except under a complaint made by the relevant authorities or a benefit claimer after he/she has issued the mandatory notice.

Every contravention, actual or attempted, of the provisions of the Act are punishable with imprisonment for terms up to five years or with fines up to ten lakh rupees or both. However, if the damage caused exceeds ten lakh rupees such fine may commensurate with the damage caused. Any person abetting the contravention can also be punished under this section.³² For offences committed by companies or other entities, any director, manager, secretary or other officer of the company who at the time the offence or contravention was committed was in charge and responsible to the company for the conduct of the business of the company shall be deemed to be guilty of the offence or contravention and shall be liable to be proceeded against and punished under the Act.³³

Every contravention of any direction given or order made by the Central Government, the State Government, NBA or SBB for which no punishment has been separately provided under the Act, are punishable with fine up to one lakh rupees and in case of a second or subsequent offence, with fine which may extend to two lakh rupees and in the case of continuous contravention with additional fine which may extend to two lakh rupees everyday during which the default continues.³⁴

26. Section 36(4)(ii) of the Act.

27. Section 36(5) of the Act.

28. Section 38 of the Act. It may be noted that this power is in addition to the power already existing power under the Wildlife (Protection) Act, 1972.

29. Section 39 of the Act. Repositories are places where something is stored. This is a commendable step taken and if properly enforced can go a long way in creating awareness about biodiversity and its components.

30. Section 37 of the Act.

31. Section 58 of the Act.

32. Section 55 of the Act.

33. Section 57 of the Act.

34. Section 56 of the Act.



Act in addition to other Environment, Forests and Wild Life Laws

As regards, environment protection and conservation this Act is in addition to the other laws relating to forests and wildlife like the Indian Forests Act, 1927, the Forest (conservation) Act, 1980, the Wildlife (Protection) Act, 1972 , the Environment (Protection) Act, 1986 etc.³⁵

Conclusion

The Act has been in force for more than five years. The potential of this Act to generate revenue and employment has not been realized by the Central or any State Government. The Stakeholders have not

understood the true worth of the Act. The local people/indigenous communities have to a certain extent been misled by emphasizing more on the Benefit Sharing provisions of the Act. The various industries, particularly the herbal drug industry, have also not realized the positive impact it can have on their industry and have not tried to reach the local people/indigenous communities. The Biodiversity Law will not realize its full potential as long as the stakeholders (the local communities/indigenous people/industry) do not come together and the same will happen only when the administrative machinery set up under the Act takes the right direction to make each of the stakeholders aware of their knowledge and the benefits of sharing.

35. Section 59 of the Act.