6 Years of the Biological Diversity Act in India

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Contents

Chapter 1: INVESTIGATING IMPLEMENTATION

The context

Biological diversity is complex and dynamic, responsible for the living world and its numerous species and ecosystems. It is the basis of human lives and livelihoods. Human interactions with biological resources are determined by cultural contexts, religious beliefs and economic considerations. The diversities of local practices through which people spiritually revere, carefully select and collectively nurture diversity, comprise the means of maintaining these natural life forms. These practices aim at achieving a delicate balance between the need to use nature's resources to meet absolute needs and allowing for the regeneration of natural systems. There are however, different world views, which seek to harness natural systems, often resulting in its over-exploitation. The term "diversity" then becomes a "resource" which can be accessed, marketed and controlled. This is where conflict develops, between "users" of natural resources, precipitating at both ideological realms and practical instances.

In this scenario, decision-makers have developed frameworks whereby biological resources can be conserved partly for their intrinsic values but largely for commercial use and research requirements. Mechanisms for regulation and restriction of access, management and mitigation of impacts and related compensatory regimes are being developed. The ethics of these mechanisms are contentious and perspectives and positions of civil society on them are polarised.

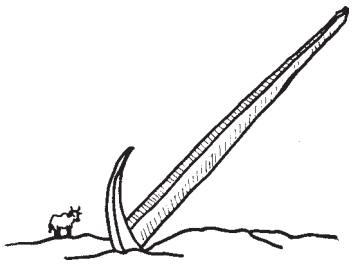
International treaties like the Convention on Biological Diversity (CBD), 1993, from which India's Biological Diversity Act, 2002 (hereafter BD Act) draws its mandate are devised in this controversial context on diversity and its use.

"Designing" the formal legal framework

The CBD is the first international agreement aiming at the conservation and sustainable use of biological resources. It acknowledges the sovereign rights of the State over its biological resources and also seeks to regulate trade in the same.

The process of drafting the India's Biological Diversity Act, 2002, took ten years from the time India signed the CBD in 1993. After a decade-long process it was expected that the outcome would be a strong legislation for the conservation of wild and domesticated diversity, and the traditional knowledge associated with it. The same framework, it was thought, could check biopiracy, which had increased with the growing importance of biological material in trade and commerce.

The first draft of the Biological Diversity Bill, 1997, put together by a committee headed by Prof. M.S.Swaminathan, had a different design. It primarily sought to place a framework to regulate access to biological resources and traditional knowledge fundamentally accepting that these were indeed tradable commodities. By the time the Bill became an Act, following the legislative process, some strong conservation provisions were salvaged and given a place in the text of the law. However, maximum detailing in the regulatory framework has been on access, through a three-tier institutional structure[1]



[1] For more, read *Understanding the Biological Diversity Act 2002: A Dossier*, Kanchi Kohli 2006, a Kalpavriksh, GRAIN and IIED publication and *A Guide to the Biological Diversity Act, 2002*, by Kalpavriksh, GRAIN and IIED, 2007.

Ironically, the spirit of the 73rd and 74th Constitutional Amendments, which were enacted around the same time, were not reflected in the 2002 Act, and were further compromised in the Biological Diversity Rules, 2004.

Main provisions of the Biological Diversity Act, 2002 and Biological Diversity Rules, 2004

1. Prohibition on transfer of Indian genetic material outside the country, without specific approval of the Indian Government.

2. Prohibition on anyone claiming an Intellectual Property Right (IPR), such as a patent, over biodiversity or related knowledge, without the permission of the Indian Government.

3. Regulation of collection and use of biodiversity by Indian nationals, while exempting local communities from such restrictions.

4. Measures for sharing the benefits from the use of biodiversity, including the transfer of technology, monetary returns, joint Research & Development, joint IPR ownership, etc.

5. Measures to conserve and sustainably use biological resources, including habitat and species protection, environmental impact assessments of projects, integration of biodiversity into the plans, programmes, and policies of various departments/sectors.

6. Provisions for local communities to have a say in the use of their resources and knowledge, and to charge fees for any access.

7. Protection of indigenous or traditional knowledge, through appropriate laws or other measures such as the registration of such knowledge.

8. Regulation of the use of genetically modified organisms.

9. Setting up of National, State, and Local Biodiversity Funds, to support conservation and benefit-sharing.

10. Setting up of Biodiversity Management Committees (BMC) at local, village and urban levels, State Biodiversity Boards (SBB) at the state level, and a National Biodiversity Authority (NBA).

The BD Act and its accompanying Biological Diversity Rules (hereafter BD Rules) were opposed by many groups, even its shape as a Bill and later after its enactment, when it was first made public. The opposition was on various grounds including the lack of clarity on conservation clauses, poor regard to community control, and its endorsement of Intellectual Property Rights (IPRs) as the Act set a framework to grant IPR permissions. Some saw this law as indirectly licensing access to biological resources and traditional knowledge and strongly emphasised that this should not have been allowed at any instance. Then again, some saw potential in a few provisions. While the scale and level of engagement with the legislation have differed, there is a common belief that (with appropriate changes and strengthening) a law such as the BD Act can indeed check the indiscriminate use of biodiversity, result in its systematic documentation and also contribute to long-term conservation.

The lack of clarity in the BD Act and BD Rules was reflected in the definitions and terminology it used like its use of the term 'endangered' instead of 'threatened' when the former is only a subset of the latter term. This scientific gap would leave a number of non endangered threatened species outside the purview of some provisions (see Rule 16.1). Some definitions are simply inadequate, such as the definition of 'benefit-claimer' being very myopic.

The fact that limits to the Act's scope and potential was already drawn was clearly revealed in an interview in 2005[2] , where Member Secretary of the National Biodiversity Authority (NBA), Dr. K. Venkatraman said:

> *"The Act mainly deals with access to genetic resources by foreign companies, individuals or organisations. The National Biodiversity Authority (NBA) was set up under the Act to deal with requests to transfer the results of any related research out of India. It will also decide how benefits of the research are to be shared with local communities."*

The question of implementation

The implementation process since 2002 has veered considerably from the original intent of the CBD. The conservation aspects of the BD Act which were introduced through a great deal of lobbying, need elaboration, strengthening and political will to eventually take shape. While 315 approvals for access to biological resources and related knowledge were granted by the National Biodiversity Authority, as of September 2008, the corresponding conservation duties of the government have not been as urgently attended to for any of these approvals.

Implementation timeline

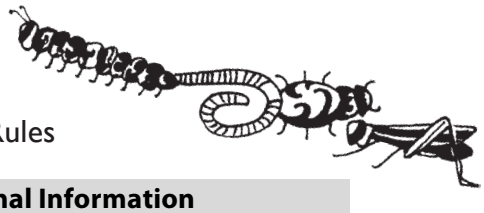
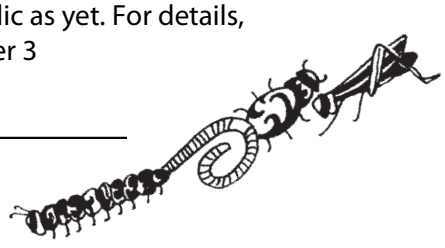


Table 1: An implementation timeline related to the BD Act and BD Rules

Time Period	Event	Additional Information
2002, December	The Biological Diversity Bill, 2000 gets the approval of both Houses of Parliament.	The Bill was passed in the Lok Sabha on 02 December 2002 and in the Rajya Sabha on 11 December 2002.
2003, 17 Jan	India ratifies The Cartagena Protocol on Biosafety, 2000 (also called the Biosafety Protocol)	
2003, 01 October	The National Biodiversity Authority was constituted by notification in the official gazette.	The NBA is located in Chennai, Tamil Nadu
2004, 15 April	The Biological Diversity Rules, 2004 was notified.	There was no substantive difference between the content of the draft Rules put up for public comment in 2003, and those finally notified.
2005 onwards	Expert Committees (ECs) formed under the BD Act and BD Rules for: – Collaborative Research – Material Transfer Agreement, Patents and Benefit Sharing – Normally Traded Commodities – Rare, Threatened, Endangered and Endemic Species – Database on Biodiversity & TK – Repositories – Agro Biodiversity – Traditional and Tribal Knowledge (Proposed at the 10th meeting, NBA, 07 January 2008)	

[2] Source: 'Looking after India's Biodiversity', interview with NBA Secretary, Supplement IP Focus, 2005 (Also included in 'Understanding the Biological Diversity Ac: A Dossier' compiled by Kanchi Kohli, 2006)

Time period	Event	Additional information
2005, 30 June	NBA meeting on People's Biodiversity Registers	
2006, 22-23 June	National Conference on People's Biodiversity Registers (PBRs) organised by the NBA.	Recommendations available at www.nbaindia.org
2006, 08 November	MoEF issues 'Guidelines for International Collaboration Research Projects Involving Transfer or Exchange of Biological Resources or Information' (this is research between institutions including government sponsored institutions and such institutions in other countries)	'Collaborative research', though involving transfer or exchange of biological resources, does not fall under the purview of the BD Act. This raised apprehensions among critics of the Act, who saw this as a leeway for easy and unrestricted access to resources and knowledge. These fears were confirmed when the final notification, with weak conservation and monitoring provisions, was issued.
2007, November	India became a member of the Global Biodiversity Information Facility (GBIF) according to the minutes of the 10th meeting of the NBA. An MoU was to be signed between GBIF and the National Botanical Research Institute (NBRI), Council for Scientific and Industrial Research (CSIR).	The intention is to link the national database on biological resources and knowledge, to international databases like the GBIF[3].
2008	Announcement to establish a National Digital Database by the NBA.	
2008, February	Draft format of a simplified People's Biodiversity Registers (PBR) was issued by the NBA for public comment.	Comments from various groups and organisations at www.kalpavriksh.org
2008, June	Draft Guidelines for Biodiversity Heritage Sites was issued by the NBA for public comment.	Comments from various groups and organisations at www.kalpavriksh.org
2008, August	Draft Guidelines on Benefit–Sharing, prepared by the United Nations University - Institute of Advanced Studies (UNU-IAS) was issued.	The guidelines have not been made public as yet. For details, see Chapter 3



[3] Minutes of the Second Meeting of the Expert Committee on Database on Biodiversity and Traditional Knowledge dated 3.2.06, downloaded from http://www.nbaindia.org/docs/ec_secondmeeting.pdf on 10.12.08.

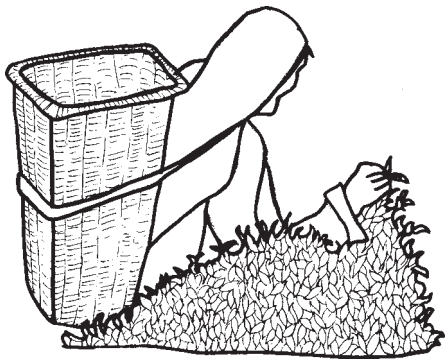
The Status report: Why and how we examine implementation

This status report does not seek to critique the law per se but examines its implementation of the BD Act and BD Rules since their introduction. However, the context is important to relate it to where the legislation finds itself today. The processes of globalisation form an influential backdrop to the implementation scenario, as explained in the subsequent sections of this document. The nodal governmental agency responsible for the implementation of the law, i.e. the Union Ministry of Environment and Forests (MoEF) pursues a different mandate today than it did ten years back. Its National Environment Policy, 2006 clearly establishes the need to integrate economics and environment, something that percolates into all relevant laws[4]. This context essentially challenges the conservation orientation of the Biological Diversity Act, 2002

The last few years reveal some clear trends which this report details. It presents statistical data but relies on qualitative analysis to understand the fundamental discourse and direction of implementation.

The report especially focuses on aspects of this law's implementation regarding decentralised conservation of resources and knowledge and powers of communities in its scheme. These are well-known problematic areas and the subsequent chapters highlight how substantively the law implemented different aspects of the BD Act and BD Rules. Through its seven chapters, the report examines the implementation experience in relation to the fulfilment of three basic objectives stated in the BD Act:

1. conservation of biological resources and knowledge,
2. their sustainable use and
3. equitable benefit-sharing accruing from such use



In addition, the report also describes related aspects such as the documentation of biological diversity through PBRs, which has received a great deal of official attention.

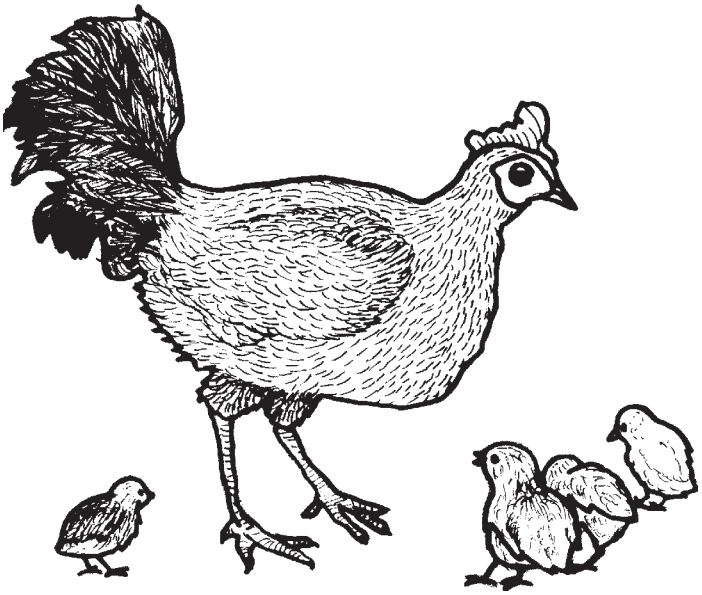
Methodology

The status report is part of a larger process of tracking and responding to the implementation of the BD Act. In order to put together this report, information has been gathered through primary and secondary sources. The methodology has included accessing information from the website of the National Biodiversity Authority and State Biodiversity Boards. Gaps in information were filled through Right to Information applications and direct correspondence with members of the authorities/boards.

From 2006 onwards, strategic workshops were held in various regions of the country discussing with representatives of communities, non governmental/governmental and community based organisations, researchers and activists on the provisions and issues with respect to the BD Act. The discussions and feedback received during these interactions has been an important source of analysis. Other than this there has been sustained follow up on the implementation by regular feedback in written form or by attending meeting organised by state governments and/or civil society groups. Other than this secondary information has also been procured through newsreports and other related information on the internet.

This report in many ways is a critical part of a process of systematic tracking of this legislation over six years. Over the last four years, the authors undertook research and advocacy as part of the *Campaign for Conservation and Community Control over Biodiversity.*

[4] 'Laws' imply all Acts, Rules, Notifications and Government orders issued under the principal Acts.



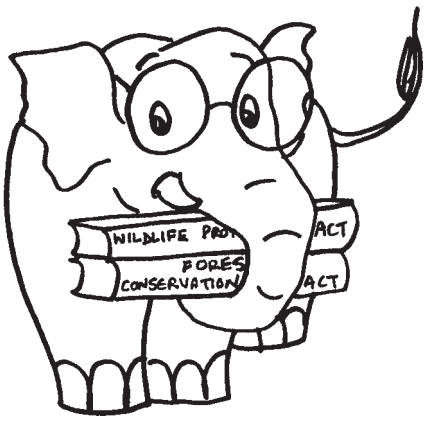
Chapter 2: INSTITUTIONAL STRUCTURE IN THE BD ACT: Locating Power and Control

1. Institutional structure

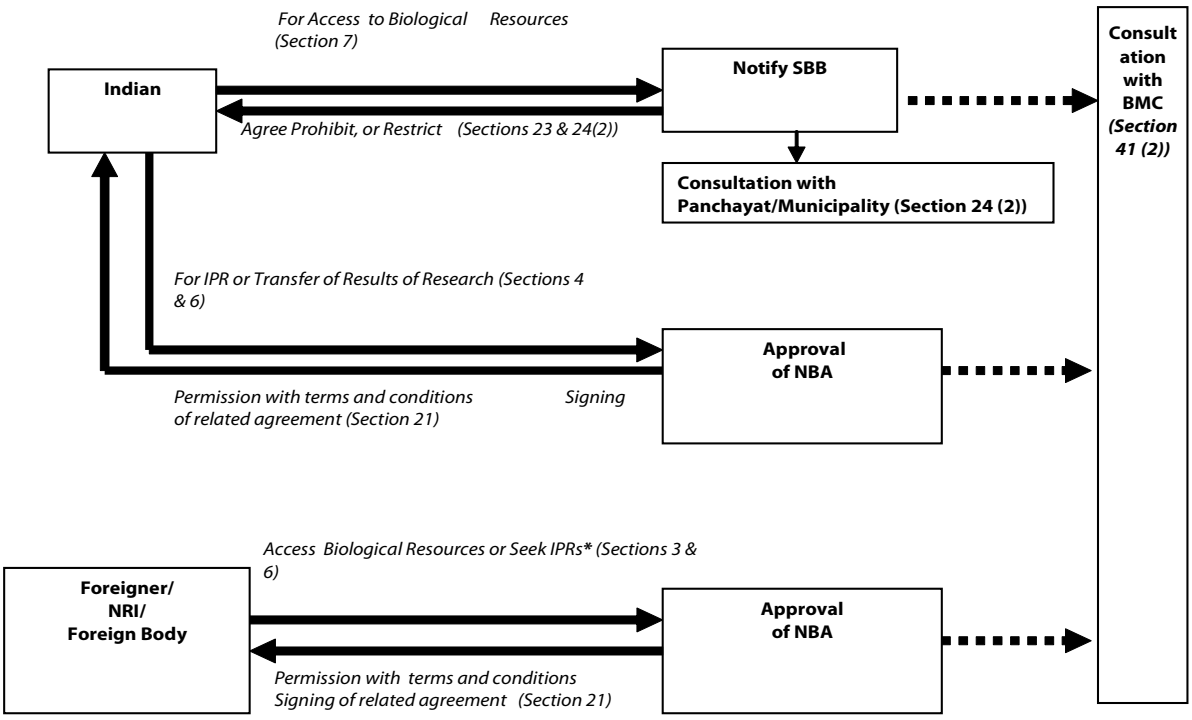
In order to achieve its objectives, the drafters of the BD Act, envisaged a three-tier institutional structure: a National Biodiversity Authority (NBA) based in Chennai at the top tier; State Biodiversity Boards (SBBs) in every state occupying the second tier; and Biodiversity Management Committees (BMCs) at the panchayat/municipality levels - the final tier. The Act presents clear procedures for access to biodiversity which are further elaborated through the BD Rules, 2004, and also contains clauses related to conservation and knowledge protection. The Union Ministry of Environment and Forest (MoEF) is the nodal Ministry on this matter.

There is an inherent hierarchy to the institutional mechanism provided by the Act, which is explained in the top-down structures and procedures of each of the bodies. Though the 73rd and the 74th Amendments to the Constitution of India (relating to decentralised decision-making at the Gram Sabha and urban ward levels) had already come into effect by the time the BD Act was introduced, these principles of decentralisation did not find place in the clauses and procedures of this law. This predicament is ironic considering the fact that while the Act expounds on the conservation and sustainable use of resources and knowledge, this was so far protected, preserved and used by local communities. As can be seen from Figure 1:

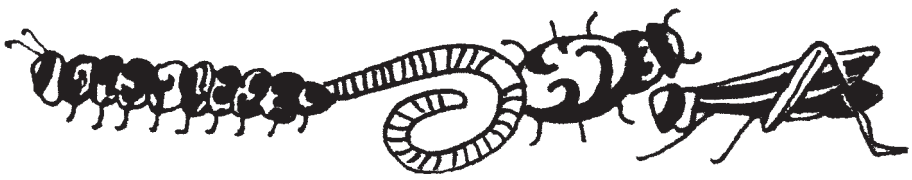
- The Act vests primary regulatory responsibility with the NBA and its Expert Committees in Chennai. Other than this, there are conservation duties prescribed for the Central Government, through the MoEF.
- There are few mechanisms for community institutions or community-based institutions to play a role in achieving any of the objectives or even a regulatory or monitoring function.
- The role of the SBBs is limited only to that of receiving intimation from Indian institutions, corporate bodies or individuals who wish to use biological resources and knowledge. The SSBs also play an additional role of guiding and steering processes like documentation of biological diversity.



Procedure for Access/Use or Seeking IPR on Biological Resources



*** NBA approval not required for Plant Variety Protection application**



2. Where the power lies

Table 2: A comparison of powers and responsibilities of institutions under the BD Act and Rules

Institution	Powers and responsibilities			
	Regulation of access and IPRs	**Conservation**	**Documentation**	**Benefit-sharing**
NBA	The NBA's permission is to be sought by foreign nationals before accessing biodiversity or traditional knowledge or seeking IPRs on the same. Indian nationals are also to seek permission for IPRs from the NBA.	The NBA advises the Central Government on matters relating to the conservation of biodiversity and its sustainable use, and the protection of people's knowledge. It also advises State Governments in the selection of areas of biodiversity importance such as Biodiversity Heritage Sites.	The NBA's Expert Committee has designed a format based on which documentation of biological diversity should be carried out by BMCs (see Chapter 4 for details)	Ensure and determine equitable sharing of benefits arising out of the use of access between person applying for approval, local bodies concerned and the "benefit claimers" (defined in the Act)
SBB	The SBB is to be intimated by Indian nationals before accessing biodiversity and/or traditional knowledge. The SBB can suggest prohibitions and conditions for such access.	In their state, SBBs have powers to restrict activities, which are likely to be detrimental to biodiversity.	The SBB guides the BMCs in its documentation of information related to biodiversity and traditional knowledge in PBRs, with the help of a Technical Support Group.	No role is prescribed in the Act or Rules
BMC	The BMC is to be consulted by the NBA and the SBB before taking any decision related to the use of biological resource and associated knowledge falling within the BMC's territorial jurisdiction.	A broad conservation role for the BMC is mentioned in the BD Act, but is not further defined in either the Act or the corresponding Rules.	The BMC documents resources and knowledge with the help of the Thematic Support Group and with the guidance of the SBB using the format prepared by the NBA's Expert Committee.	No role is prescribed in the Act or Rules

3. Formation of SBBs and their compostition

As per the minutes of the State Biodiversity Board Interactive and Review meeting held on the 28th and 29th of April, 2008, a total of twenty states have formed Biodiversity Boards. Their table below is an analysis of their composition[5].

Table 3 highlights the absence of community representatives or community-based organisations in the State Biodiversity Boards. The data in the table shows that most SBBs consist of representatives from the government or are government-supported academic institutions. There is also a lack of independent scientists in the SBBs.

Table 3: Composition of State Biodiversity Boards

S.No	State	Government Dept or affiliated organisation	Political Representative	NGO	Academician or Community-Based Organisations	Community	Other (retired govt officials or where details not known)	Total
1.	Arunachal Pradesh (March 2005)	5 (including Chairperson)			4			**9**
2.	Chhattisgarh (February 2006)	8 (including Chairperson)	1		2			**11**
3.	Goa (December 2004)	5			5		1 (Chairperson, Retd. Directory, Agriculture)	**11**
4.	Himachal Pradesh[a] (November 2005)	13 (including Chairperson)			2			**15**
5.	Jharkhand	7(including Chairperson)			1		4	**12**
6.	Karnataka (November 2003)	4	1 (including Chairperson)	1	3		2	**11**
7.	Kerala (February 2005)	6					5 (including Chairperson)	**11**
8.	Madhya Pradesh[b] (December 2004)	4			1			**5**
9.	Manipur (April 2006)	6 (including Chairperson)		1	1		2	**10**
10.	Mizoram (January 2006)	1(excluding Chairperson)			4		1	**6**

[5] The complete composition and notification of the State Biodiversity Boards http://www.nbaindia.org/sbb/sbb.htm

S.No	State	Government Dept or affiliated organisation	Political Representative	NGO	Academician or Community-Based Organisations	Community	Other (retired govt officials or where details not known)	Total
11.	Nagaland (March 2005)	5 (excluding Chairperson)	1 (Chairperson)					**6**
12.	Punjab (January 2004)	8 (including Chairperson)	1		2		1 (former Maharaja of Kapurthala)	**12**
13.	Sikkim (March 2006)	7	2 (including Chairperson)	3				**12**
14.	Uttar Pradesh (September 2006)	6 (including Chairperson)						**6+**[c]
15.	Uttaranchal (April 2006)	10	1 (Chairperson)					**11**
16.	West Bengal	6			4 (including Chairperson)		1	**11**
17.	Andhra Pradesh (May 20th, 2006)	8		1	1 (including Chairperson)			**10**
18.	Gujarat	4 (including Chairperson)			5		2	**11**
19.	Haryana (November 2006)	8	1 (Chairperson)		1			**10**
20.	Tamil Nadu (April 2008)	6	1 (Chairperson)		3		1	**11**
	Total	**132**	**10**	**6**	**37**	**0**	**16**	

a. A list of members who participated in the first meeting of the SBB provided on the NBA website rather than the official notification constituting the Board. This table contains data based on the list. Downloaded from http://www.nbaindia.org/sbb/act_hima_prad0506.htm on 10.12.08

b. Information from the MP State Minor Forest Produce website, downloaded from http://www.mfpfederation.com/content/ppa/ben_bio.html on 10.12.08. The Chief Minster has been appointed as Chairman. Prof. M S Swaminathan has been designated as Advisor to the State Biodiversity Board.

c. The notification makes mention of 7 - 11 specialist members apart from the 6 appointees.

4. What's on the SBB's agenda? What are the concerns?

Table 4: Table showing matters discussed at SBB meetings

S.No.	SBB	Meetings held	Key decisions	Resolutions/ Concerns raised by SBBs
1.	Punjab	2	– Committee to identify biodiversity rich areas and heritage sites constituted. – Committee to identify commercially important flora & fauna constituted. – To conduct a workshop on 'Facilitating Formation of State Biodiversity Boards & Biodiversity Management Committees in Northern India' and a Training programme on the implementation of the BD Act. – Start a joint project with UNESCO titled '*Capacity Building for promoting Environmental Sustainability through Biodiversity Conservation*'	– Inconvenience caused due to the Chief Minister being the Chairperson. – To regulate trade in biological resources between Punjab and neighbouring states, to realise the true commercial potential and to promote conservation of key species (First meeting held on 18.01.06). – Absence of any intimation from Indian companies/institutes regarding access to biological resources.
2.	Arunachal Pradesh	1	– Creation of the Biodiversity Fund. – Implementation of the State Biodiversity Strategy Action Plan by setting up the Biodiversity Cell.	
3.	Andhra Pradesh	2	– BMCs in Adilabad District to implement and maintain biological assets created during a project involving "technological interventions" of agriculture, animal husbandry and the fisheries sector. – Research projects for "conservation initiatives" undertaken.	
4.	Madhya Pradesh	4	– Training programme on documentation through PBRs. – Integration of biodiversity issues into departmental programmes. – Establishment of Biodiversity Parks. – Conservation of agro-biodiversity through the conservation of rice varieties. – Various studies and projects including development of a link between traditional knowledge (TK), biotechnology and IPRs to facilitate bio-prospecting[a].	

S.No.	SBB	Meetings held	Key decisions	Resolutions/ Concerns raised by SBBs
5.	Goa		– Construction of Medicinal Herb Park – Establishment of Biodiversity Data Bank Inventory. – Research/Schemes/Activities undertaken in the State of Goa – Awareness programmes on biodiversity conservation and documentation through PBRs. – Constitution of Biodiversity Inventory Committee: for biodiversity inventorisation, documentation and conservation. – Constitution of Wetland & Agriculture Biodiversity Committee: for inventorisation, documentation & conservation of wetland, agriculture and aquaculture biodiversity. – Constitution of Heritage Site and Sacred Grove Committee. – Constitution of Awareness Committee	– Non-availability of consistent grant-in-aid for carrying out activities – Project proposals submitted to NBA are awaiting clearance. – Difficulties in sanctioning man power resources due to restriction in government policies.
6.	Karnataka		– Karnataka Biodiversity Information System established for the Western Ghats. – Activities for biodiversity conservation undertaken in the Eastern Plains. – Documentation of information on Agro Biodiversity and allied activities. – Provision made in the Budget for conservation, maintenance and consolidation of Kuvempu bio-park at Shimoga, Chikmagalur Districts. – A project proposal on Biodiversity Conservation and Management of Coastal Karnataka was submitted to the Ministry of Environment and Forest (MoEF) for approval in 2003. – The SBB recommended to the State Government that certain areas be declared as fish sanctuaries apart from taking other protective measures. – The draft Karnataka Biological Diversity Rules, 2005 were prepared. – Training and awareness programmes on biodiversity conservation and related issues were conducted.	

a. Also see Madhya Pradesh Biotech Policy 2003 http://mpnricentre.nic.in/biotech.htm Downloaded on 10.12.08

General drift

Below are some excerpts from Review meetings of the State Biodiversity Boards held in April 2006[6] and April 2008[7]. Amongst the points raised at the meeting, the following were mentioned:.

> *"The method adopted by Gujarat State to collect funds from each new industry that is formed, and its use as a reserve fund to conserve forests has been recommended for the other states to follow as well. A methodology should be developed whereby industries that are based on bio-resources accrue benefits to the local community. In this regard Punjab SBB has taken the initiative by inventorying the bio-resource-based industries and the extent to which the bio-resource is being used in Punjab."*

> *"The NBA is preparing guidelines for the access, benefit-sharing and material transfer. These guidelines once they are notified by the Central Government may be used as a template by (the) SBB."*

> *"A methodology should be developed whereby industries that are based on bioresources accrue benefits to the local community."*

The discussions reflected the understanding that there is a need for the *"involvement of taxonomists at BMCs district and panchayat level for preparation of PBRs."* The immediate need for technical support from taxonomists in the conservation of biodiversity was also stressed.

> *"Since the BMC does not have experience on the preparation of PBR, the West Bengal system of hiring universities and research organisations should be used in other States."*

Minutes of both the review meetings reflect that the documentation processes of West Bengal and Kerala would be taken as models to set a precedent for the whole country.

[6] Downloaded from http://www.nbaindia.org/sbb/sbbreviewmeet_27-28_april.htm on 10.12.08

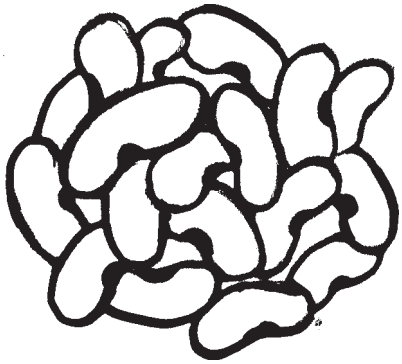
[7] Downloaded from http://www.nbaindia.org/docs/sbb_interactive_reviewmeeting_apr08.pdf on 10.12.08

4.a Decisions taken in the SBB review meeting in April 2008

The points below give an idea about the mechanisms that are being put in place to deal with issues that have evolved while setting up the institutional structures especially at state and village levels. It was reiterated at the meeting that the thrust of the preparation of the PBRs and BMCs should be at the district level .

Some key discussions and decisions from the April 2008 meeting of the SBB state:

- A letter was to be sent from the Secretary (MoEF) to the Chief Secretaries of all the states, which had not set up SBBs, to do so at the earliest, and to ensure that the composition of SBBs, especially that of the Chairperson, was in accordance with the provisions of the BD Act. It was remarked that the composition of most of the SBBs was not in accordance with the Act's provisions.
- State governments were to be requested to send their Rules/draft Rules to the NBA, and the NBA was to have these examined through a legal consultant. The NBA was also requested to have guidelines/model draft Rules prepared by the consultant, which were in accordance with the Act, to facilitate this process.
- The state governments were to be requested to expedite setting up of State Biodiversity Funds.
- The state governments were advised to set up BMCs initially at the district level, and in a few villages to be identified by the state governments in each district.
- State governments were to provide their comments on the format of PBRs. Those SBBs which had developed their own formats for PBRs were to sent these formats to the NBA. The NBA was then to standardise the format, based on inputs received which might be used by all SBBs.
- The PBRs at the district level should be the aggregate of the 3-5 village level PBRs and contain all available survey data, for example, relating to forests and wildlife. Further, these PBRs could be expanded and updated in subsequent years.
- The state governments were to be advised to attach one good institution/university/ college/NGO with each district, for the preparation of PBRs.
- Regular and more frequent interactions/consultation meetings between the NBA and SBBs were to take place, preferably every six months, wherein the progress may be reviewed.



4. b. Instances of SBBs raising concerns over biodiversity destruction

(Kerala) State Biodiversity Board says 'no' to Athirappilly project

KOCHI: Even as Electricity Minister A.K. Balan reiterated the Left Democratic Front government's intention to go ahead with the Athirappilly hydroelectric project, the Kerala State Biodiversity Board has recommended to the government to 'reconsider' the project in view of the threat to the rich biodiversity of the Athirappilly-Vazhachal area.

The board, which met on Wednesday solely to formulate its view on the controversial project — it has been cleared by the Union Ministry of Forest and Environment subject to 19 conditions — indicated that the project is a no-no from the biodiversity angle.

The meeting, 'considering the biodiversity values of the area,' decided to recommend to the Government to 'reconsider' the hydroelectric project "in totality and without disturbing the eco-system and species." The meeting, presided by board chairman V.S. Vijayan, was attended by six members.

The Biodiversity Board, a statutory body functioning under the Biological Diversity Act 2002, is mandated to advise the State government "on matters relating to the conservation of biodiversity, sustainable use of its components and equitable sharing of the benefits arising out of the utilisation of biodiversity resources."

Source: http://www.hinduonnet.com/2007/09/27/stories/2007092754760500.htm

5. Formation of BMCs

As mentioned earlier, BMCs are to be constituted at the village/municipality level and are part of the three-tier institutional structure prescribed in the BD Act. Presented below is the information available on the number of BMCs that have already been constituted in various states.

Table 5: BMCs formed in different states

STATE	Number of BMCs formed (as of September 2007)[8]
West Bengal	10
Karnataka	621
Kerala	5
Goa	5

[8] Downloaded from http://www.nbaindia.org/bmc.htm on 10.12.08

5a. Composition of Biodiversity Management Committees (BMCs)

At the local level, under the BD Act, it is envisaged that communities will have to organise themselves into a newly constituted seven-member BMC. The establishment of the BMCs has raised practical problems at the village level. The provision on the composition of the BMC stipulates that seven members are to be nominated from the local body with a required percentage of representation of women and the SC/ST categories. Questions have been asked whether the current composition of the BMCs and the very fact that they need to be nominated by the local body (panchayat, urban ward, autonomous district council) will truly make for an adequate representation of a village's diversity. It is too early to determine the implications of the BMCs' current composition in the long run, as most of the BMCs are at a nascent stage, having only recently been constituted and becoming familiar with their role and powers.

To complicate matters, another related gap within the provision of the Act is its failure to link the BMC with existing institutions at the village level - especially the ones related to the management of natural resources like Watershed Committees and Forest Protection Committees. With its current composition and design, the BMC's ability to ensure its own effective functioning and proper conservation and management of biodiversity within a village is questionable.

Some SBBs (specifically from Sikkim, Haryana and Madhya Pradesh) have asked the NBA for guidelines on the formation of BMCs in their states. Communities view this as another cause for concern, since it implies that they would then have to follow government instructions on how to re-organise themselves into a structure that they neither design nor demand. More detail on concerns regarding the power and control with communities, in the Act, are dealt with in subsequent chapters.

Too many committees, no enforcement!

"If the Biodiversity Management Committees are in charge of conservation of biodiversity and related knowledge, wouldn't their role come in conflict with the Van Panchayats? The people had formed the Van Suraksha Samiti. But the Van Panchayats hold more power because they are recognised by the government. If the BMCs are formed, they will only be replicating the functions of the two bodies."

Vijay Jardhari, Farmer, Garhwal, Himachal Pradesh.

"Can the community refuse to form the BMC?"

Umendra Dutt, Kheti Virasat Mission, Punjab.

The question of formation of Joint Forest Management Committee as BMC by Sikkim State is not in accordance to the Biological Diversity Act.

Minutes of the SBB review meeting held in April 2008

6. The Expert Committees of the NBA

Implementation of other important aspects of the BD Act also rests only with the NBA and the Expert Committees constituted by it. The NBA, as mandated by the BD Act, has set up several Expert Committees to address various aspects of the former's mandate. These include committees on subjects of documentation, benefit-sharing, heritage sites, endangered species, scrutinising access applications and so on (see www.nbaindia.org for more details). The duration of the Expert Committees is for a period of 90 days from the date of issue of the Office Order[9]. An analysis of the composition of seven such committees[10] highlights the concentration of representatives of government departments and institutions and the dearth of representation from civil society and local communities.

Table 6: Details of select Expert Committees of the NBA

S.No.	Expert Committee	Chairperson	No. of meetings	Key decisions taken	Guidelines issued
1.	Collaborative Research	Dr. B.S. Dhillon, Director of Research, Punjab Agricultural University, Ludhiana - 141004, Punjab.	1st meeting: 07.01.06 2nd meeting: 07.04.2006	Steps towards formulation of draft guidelines for Collaborative Research	'Guidelines for International Collaboration Research Projects Involving Transfer or Exchange of Biological Resources or Information relating thereto between institutions including government sponsored institutions and such institutions in other countries (MoEF, 08.11.2006)
2.	Material Transfer Agreement, Patents and Benefit-Sharing	Dr. Pushpangadan National Botanical Research Institute Rana Pratap Marg Lucknow – 226001, Uttar Pradesh (According to the third meeting of the NBA, July 2005)	1st meeting: 12.06.2006 2nd meeting: 29.08.2006-30.08.2006 3rd meeting: 16.05.2007 Brainstorming Session on "Developing Benefit-Sharing Guidelines for Implementation on National Biodiversity Act and Rules" 19.12.2007, New Delhi		United Nations University – Institute of Advanced Studies (UNU-IAS) developed the subsequent draft of the benefit-sharing guidelines paper in February 2008. This was prepared and discussed in SBBs meeting in MoEF in August 2008

[9] Minutes of the 11th meeting of the NBA, 06.05.08

[10] Minutes of the 3rd meeting of the NBA, 15.07.05

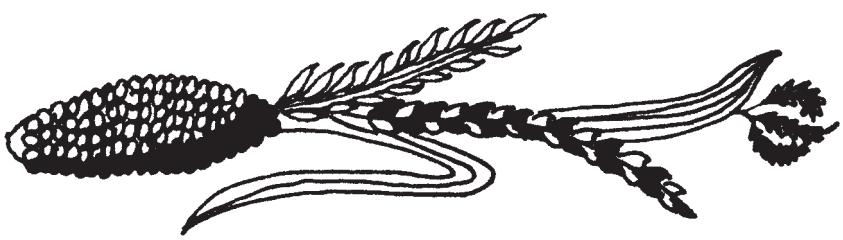
S.No.	Expert Committee	Chairperson	No. of meetings	Key decisions taken	Guidelines issued
3.	Normally Traded Commodities (NTC)	Dr. Prakash Tiwari, Director, National Academy of Agricultural Research Management, Rajendranagar, Hyderabad – 500030, Andhra Pradesh He was replaced by Dr J.P. Mishra, Asst. Dir. General (ESM & CSC), Indian Council of Agriculture Research, Krishi Bhavan, Dr. Rajendra Prasad Road, New Delhi – 110001	1st meeting: 04.10.2006 2nd meeting: 10.10.2007 3rd meeting: 15.03.2008	Listing of NTC and deliberation on various issues relevant to the notification of NTCs. These could then be accessed without permissions.	Draft guidelines have been prepared according to the 11th meeting minutes of the NBA which would be discussed and finalised by the committee along with the NTC for notification by the administrative Ministry.
4.	Rare, Threatened, Endangered and Endemic Species	Prof. T.N.Ananthakrishnan Emeritus Scientist Dwaraga, Nungambakkam, Chennai – 600034 Tamil Nadu	1st meeting: 18.01.2006 2nd meeting: 28.02.2006 3rd meeting: 29.04.2006	Criteria for designation taken. Preparation of guidelines on identifying species	Draft Guidelines for Rare, Endemic and Threatened Species (www.nbaindia.org)
5.	Research Result Publications	NA	13.06.2007 03.10.2007	NA	Draft "Guidelines for Transfer of Research Results involving Indian biological resources to non-Indian individuals, companies, universities, trusts, institutions or any other form of organisation including government sponsored/funded institutions from India for further research or commercial utilisation on having potential commercial utility".

S.No.	Expert Committee	Chairperson	No. of meetings	Key decisions taken	Guidelines issued
6.	Repositories	Dr. A.K. Ghosh Director Centre for Environment and Development 329, Jodhpur Park Kolkata -700068, West Bengal	1st meeting: 28.11.2006 2nd meeting: 28.03.2007 3rd meeting: 24.04.2007	Designation of National Repository – A letter dated 28.07.2007[a] was sent to 19 National Institutions (government & NGO) informing them that their institution was included as 'Designated National Repository' under the BD Act. So far, NBA has received positive responses from 13 institutions	Draft notification approved by the NBA in its 11th meeting (06.05.2008). No guidelines issued so far.
7.	Database on Biodiversity & TK	(Details are provided in Chapter 5 on Documentation of Biodiversity)			
8.	Agro-Biodiversity	Terms of reference: a.To define clearly the area of overlap and explicit differences in the BD Act, Seed Bill, 2004 and the Protection of Plant Varieties and Farmer's Rights Act, 2001. To prepare guidelines on how the BD Act can be interpreted in relation to the above mentioned Act and similar laws. b.To define clearly where the BD Act stands with reference to the Patents Act 1970 and the Geographical Indications Act, 1999. c.To prepare a list of issues that needs immediate attention such as crops/livestock/fisheries/land races/ wild relatives. d.To prepare guidelines for the origin of domesticated diversity as Biological Heritage Sites. e.To prepare guidelines for presenting land races for protecting the farmers interests. f.To prepare documentation on agro-biodiversity issues. g.Total period of completion of the guidelines is 90 days unless extended by the NBA.			No guidelines issued.
9.	Biodiversity Heritage Sites		1st meeting: 22.06.2007 2nd meeting: 14.03.2008 3rd meeting: 05.04.2008		Guidelines for the Declaration of Biodiversity Heritage Sites have been put up on the web site for public comment (August 2008).

S.No.	Expert Committee	Chairperson	No. of meetings	Key decisions taken	Guidelines issued
10.	Medicinal Plants (establishment of the EC was approved in the 11th meeting of the NBA)		1st meeting: 15.04.2008		
11.	Soil and Microbial Diversity (establishment of the EC was approved in the 11th meeting of the NBA)			The proceedings of the meeting were centred on the benefit-sharing aspect of microbial diversity.	
12.	Intellectual Property Rights (establishment of the EC was approved in the 11th meeting of the NBA)[b]				
13.	Biotechnology and Biosafety				
14.	Traditional and Tribal Knowledge				

a. Letter no.2/23/2006/Admn.NBA/3721 – 3739 dt.28-12-2007

b. Minutes of the Meeting of the Expert Committee on Evaluation of applications on Access, Research Results, IPR and Third party Transfer was approved at the 11th meeting of the NBA. The Secretary, NBA informed the members of the Authority that Dr. R.S. Rana, Chairman of the Expert Committee, with other members conducted the meeting in the NBA's Committee Room on 08 April 2008 on Evaluation of applications on Access, Research Results, IPR and Third Party Transfer. The Chairman took note of the recommendations of the EC and directed that these may be put up in the next meeting of the Authority for their consideration/ approval.



Chapter 3: IS IT ALL ABOUT ACCESS?

1. Introduction

Access to biological resources and people's knowledge for research and for commercial utilisation including Intellectual Property Rights (IPR) was largely "unregulated" in India until the Biological Diversity Act, 2002 (BD Act) was introduced. With the increase in instances of bio-piracy and growing emphasis on bio-based trade, clear terms and conditions for access were sought to be laid down by law in the post-CBD era. Ideally, these conditions should have been based on fundamental principles of ecological ethics, community sovereignty and decentralised decision-making. The issue is marked by a lack of nation-wide consensus on whether access to biological resources and people's knowledge should at all be allowed under this regime.

As per Section 3 of the Act '**access**' means obtaining any biological resource occurring in India or knowledge associated thereto for:

- research or
- commercial utilisation or
- bio-survey and bio-utilisation = survey or collection of species, subspecies, genes, components and extracts of biological resource for any purpose and includes characterisation, inventorisation and bioassay.

In the decade following which India became signatory to the CBD and the BD Act was enacted in India, the bio-trade discourse and negotiations had moved towards a global access regime. This included a paradigm shift on India's position from prohibiting patents on life forms to granting patents[11] on biological resources upon fulfillment of certain conditions. Meanwhile Access and Benefit-Sharing (ABS) negotiations at the CBD have been ongoing (See more details in chapter 7). These developments have had a significant bearing on the implementation of what is considered by many as 'conservation' legislation. The BD Act did set out a regulatory regime to screen applications for access to biological resources, but did it manage to control bio-piracy? Bio-piracy is understood as not only the appropriation of people's knowledge without their consent but also refers to the situation in which no benefits are shared with the people. Once access is deemed to be granted officially under such a system, the sharing of benefits with "benefit claimers" follow as a necessary corollary.

If access is to be allowed, then the challenges for a regulatory mechanism are to identify who can claim a share of the benefits and to ensure just and equitable sharing. Does a legislation like the BD Act offer possibilities of continual use by communities apart from the "benefit" of mere monetary compensation? Just as these questions plague the international deliberations around access and equitable sharing of benefits (referred to as ABS), they stare us in the face too in a national setting and more so at the local level. Even as the above questions remain unresolved, processes permitting access under the BD Act go on.

> *"If realised, a fair and equitable benefit-sharing from the world's biodiversity would fundamentally change the way genetic resources are controlled and exploited… Fair and equitable sharing would imply, for a start, the restoration of full usage rights to the biological resources necessary for traditional community livelihoods, as well as the corresponding land and water rights needed for their proper management. It would mean an end to all monopolisation or privatisation of genetic materials through intellectual property rights (IPRs) or other means, including through government claims of national ownership rights over biological resources. It would require all results of biological research to be freely shared among those who could have use for them. It would, in short, require genetic resources to be managed as a heritage to nurture rather than as a market commodity to sell." (http://www.grain.org/seedling/?id=327)*

[11] A patent is an exclusive right by a government patent office to an inventor, granted for a term of twenty years, giving him/her a bundle of economic privileges vis-a-vis the invention.

2. What the legislation says

How is Access Determined?

As is explained in Chapter 2 on institutional structure, no foreign person can seek access to Indian biological resources and people's knowledge or claim an IPR without the express approval of the NBA. Indian entities need to intimate the concerned SBB for access, unless it is an IPR where the jurisdiction shifts to NBA again. Local communities who are likely to be affected by an approval are to be consulted through their BMCs, only if they exist in the first place!

There is no clear system for detailed assessment of impacts of such access on both the intrinsic value and use value of the resource. There is also no detailing in the law of free prior informed consent of the local communities before approval for access is granted.

How is benefit-sharing prescribed in the Act?

The onus of determining any benefit accruing out of providing access to a resource, and how it is to be shared lies with the NBA if it is a foreign entity and with the SBB in case of Indian nationals.

The legislation states that benefit-sharing can include monetary gains and also others such as the grant of joint ownership of IPRs, transfer of technology, association of Indian scientists in R&D, setting up of venture capital funds among other deals.

Quite interestingly, the concept of non-commercial benefits, outside the purview of economics, do not find a place in this system. Indigenous communities have argued for these for a long time. They can range from the benefit of retaining continued use of biological resources to even disallowing patenting following access so as to be able to continue with their own traditional knowledge without any hindrances.

The local communities and the BMCs have no space to restrict/deny access to resources and knowledge. They can only levy fees for access of resource for commercial purpose but if they have any objections with respect to an approval for access, the only recourse they have under the Act is to appeal before a High Court.

3. What do the facts reveal?

- Number of total approvals by NBA: 315 (as of September 2008 status on www.nbaindia.org)
- Approvals for IPR: 246
- Approvals granted in one meeting in November 2007: 161
- Cases of benefit sharing: Zero
- Identification of "benefit claimers": Zero
- Benefit Sharing Guidelines: Under process

An application was filed seeking information related to all the approvals granted by the NBA using India's Right to Information (RTI) Act, 2005. This was part of the ongoing *Campaign for Conservation and Community Control over Biodiversity*. After an 8 month wait, copies of about 56 approval letters and agreements were provided to the applicants. Much of the information received was incomplete. Therefore a complaint before the Central Information Commission (CIC) was filed in April 2008 following which additional information was provided by the NBA on 1st October 2008, two days before the final hearing at the CIC. At the hearing, the Commission directed the NBA to provide copies of the agreements of the approved projects and minutes of the meetings in which these approvals were granted, free of cost, to the appellant. It also asked the NBA to provide updated information to the pubic at regular intervals of time which including putting up on the website details of projects awaiting approval.

Extracts from the Order of the Central Information Commission (CIC)

"…The respondents submitted that delay in reply was due to the fact that the copy of the RTI was misplaced and the Ministry did not receive the appeal of 31.10.07. With regard to the approvals, they stated that only those projects which have been signed by both the parties are considered as approved by the NBA and details of all approved projects have been put up on the NBA website. At present only 33 agreements have been approved and around 230 are pending approval. Details of the 33 approved projects have been provided to the appellant.

The Commission directs the NBA to provide copies of the agreements of the approved projects and minutes of the meetings in which these approvals were ranted, free of cost, to the appellant. NBA also has to take steps in accordance with the requirements of Section 4, subsection (2) of the Act to provide updated information to the pubic at regular intervals of time which includes putting up on the website details of projects awaiting approval. The appeal is disposed off."

The decision by the CIC was significant to civil society groups, as little information was available on the NBA website on the details of ABS, except numbers and names of awardees.

An analysis of these 56 approval letters, received from the NBA following the filing of the appeal to the CIC, have provided answers to a questions that the critics of the BD Act raised:

a) Is decision-making decentralised?

Of the 56 approvals granted, not one mentioned consultations with any SBB or BMC. Ironically, at international fora[12], the Government of India (GoI), through the Ministry of Environment and Forests, has portrayed this mandatory consultation requirement as being equivalent to a process for Prior Informed Consent (PIC) from local communities. However, there is no evidence thus far to show that local communities have even been consulted in the approval process.

b) How transparent is the process of access?

The only mechanism of knowing about access currently is the website of the NBA, a space which has severe limitations. Most local communities don't have the means to access this technical information source. Till April 2008, the approval letters were not even uploaded on the NBA website. It was only after the CIC gave its directions, following the RTI application, that this was done. Till date, however, only copies of approval letters are available and not that of agreements. This is inadequate to determine the nature or geographical spread of the access that is granted. Further, the basis for not envisaging benefit-sharing within such approvals is also not clear.

c) How adequate is the process of monitoring compliance to the conditions on which access is granted?

To illustrate with an example - an approval was given to Pepsico India Holdings for the cultivation, use and transfer of the dried seaweed *Echeuma cottonnii* (new name – *Kappaphycus alverzi*) in coastal Tamil Nadu (except in the Gulf of Mannar**)**. The approval apparently was given without taking into consideration the implications of cultivating a non-native alga in a region situated in very close proximity with a Coastal Marine Reserve[13]. Ironically, in less than a year, it was reported that the algae, *Kappaphycus alvarezii*, has invaded coral reefs in the Gulf of Mannar marine national park. *"Experts are trying to establish who let the seaweed escape into the wild: a government lab, a multinational company, or careless farmers"* an article in Science Magazine said[14]. A more thorough and rigorous system of assessing the implications of access prior to grant of approval is a must in such circumstances as the damage cause is often irreparable. Further, there are no known mechanisms to ensure the accountability of an institution like the NBA if an approval given without proper impact assessment and monitoring mechanisms in place.

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[12] Downloaded from http://www.mabs.jp/kunibetsu/india/india3.pdf on 10.12.08

[13] Downloaded from http://www.thehindubusinessline.com/2002/08/02/stories/2002080202430100.htm on 10.12.08

[14] Source: Bagla. P. Seaweed Invader Elicits Angst in India. *Science* VOL 320 6 June 2008.

d) Is there a mechanism to determine the existence of traditional knowledge before an approval for IPR is granted?

The answer is found in another example: an application for an IPR made by Subhash Saha of Sanitpur, Nadia, West Bengal was approved for the process of preparation of vegetable dye with the use of with *haritaki*, *babul* & marigold. The approval was granted on 11/10/07 by the NBA. It is not clear how this process of preparing the vegetable dye is considered as an 'invention' and if so whether it was verified from the local communities living in area, if they had any such practice related to the use of this vegetable dye and whether this practice was not falsely claimed as an invention, by one individual. In case the claim were to not to be genuine, with no verification, 'benefit-claimers' in the most conventional sense would not be identified and neither would any sharing of benefits accruing out of the commercial use of this IPR need to be determined.

"There is no mention about community ownership of genetic resources, and in the absence of clear guidance on ownership of resources, there is always scope for confusion in sharing the benefits."

Dr. K. Venkatraman, Member Secretary of the NBA, in a presentation at the International Conference on Access and Benefit Sharing for Genetic Resources held in New Delhi in March 2008.

e) Is the information furnished by the applicants complete and adequate to assess the implications of granting access?

The application forms that have been acquired through the RTI application reveal that in many instances, the applicants have given provided incomplete information with respect to the purpose of access to biological resources and knowledge. There are several examples that point to the fact that the research from the very outset linked to a definite commercial purpose. However this has neither been detailed in the application forms nor has there been any proactive step from the NBA or the respective expert committee scrutinizing these applications for further information or clarification.

Two of such cases are mentioned here:

- The Maharashtra Hybrid Seeds Company Limited (MAHYCO) has been allowed permission to conduct research on the eggplant (Agreement signed on 24/04/07). Form II of the Application for Transfer of Research Results states that there are No 'economic, biotechnological, scientific or any other benefits that are intended, or may accrue to the applicant seeking approval for transfer of research results'. This may be true only for the stage of transferring research results but the end product and its marketing would eventually yield income for the MAHYCO which has not been taken into account. It may be worthwhile to mention here that MAHYCO sourced the cry1Ac gene construct for its Bt Brinjal mainly from Monsanto, the US life sciences giant that also has a 26 per cent stake in the former[15]. Therefore, it is difficult to conceive that the research on eggplant has no commercial aspect after all.
- The 2nd example is from the approval given to Dolphin Institute of Biomedical and Natural Sciences in Dehradun, for transferring biological resources to a foreign entity - the Mascoma Corporation in Lebanon, New Hampshire, United States. Under the agreement, signed in January 2008, the institute has been allowed to transfer anaerobic fungi isolated from the rumen liquor/faeces/ saliva of domestic or wild ruminants (cattle, buffalo, sheep, goat, deer and camel, among others) and non-ruminant herbivores (horse, elephant, zebra and rabbit), for a year without any clear information about the purpose for which the biological material was transferred to the American corporation. Further web-based investigation revealed that the Dartmouth Regional Technology Centre of Mascoma Corporation, where the fungi were sent, is researching ethanol production from cellulosic biomass. Mascoma, in itself, is an energy biotech company that's engaged in the creation and promotion of second generation biofuels made out of cellulosic biomass. The transfer then has an inherent commercial intent not spelt out in the form and agreements.

[15] Downloaded from http://www.thehindubusinessline.com/2006/07/10/stories/2006071000840500.htm on 10.12.08.

It is evident that a detailed assessment is not carried out before allowing for such access, so that these intricacies remain obscure even as approvals are granted.

However, given the fact that often hundreds of applications are looked at by committees on occasion, in single meetings, such detailing is not designed to be part of the system.

Haste in process

In August 2007, the Expert Committee to Evaluate the Access, Patent, Transfer of Research Results and Material Transfer Applications met for a day to examine applications related to IPRs. The Committee looked at 161 such applications and recommended approval. In November 2007, the NBA took note of these comments in their day-long meeting, (amongst several other agenda items) and cleared them in one sitting[16]. In the 12th NBA meeting Dr. Renu Swarup even proposed that the time frame for seeking approval for IPR application should be shortened![17]

NBA denies access

The one instance where monitoring and action by the NBA has led to the rejection of an application has been the D1 Oils India case regarding access of Jatropha curacas (Ratanjyot) germplasm in India.

As per the information available in the agenda notes and minutes of the NBA meetings available on their website, D1 Oils India applied to the NBA in February 2006 with the intention of converting vegetable oil into bio-diesel to the standards stipulated by the European Union.

The company had proposed to collect 500 grams to 1 kg seeds of jatropha seeds throughout India at every 10° latitude.

However, D1 Oils India's application was not approved by the NBA. This was keeping in mind that a controversy around the misappropriation of jatropha germplasm from the Indira Gandhi Agriculture University (IGAU), Raipur, was yet to be resolved.

What was this controversy?

In 2005, a scientist of the IGAU, who was a leading researcher in the subject, was hired by D1 Oils India. He had coordinated important Jatropha research and access to the University's important germplasm. It was reported that upon investigations it was revealed the said scientist had illegally passed 18 varieties from that collection to D1 Oils India.

The University has filed a compliant against the scientist who has denied the allegation. This news appeared in newspapers and websites. Local groups in Chhattisgarh were critical in exposing this issue.

Why does a case like this become important?

If there was no legislation to regulate access to biological resources, including Jatropha, companies would freely be able to collect and commercially exploit it, despite the looming controversies like the one mentioned above.

The decision of the NBA would need to be appreciated and set as an example[18].

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[16] Downloaded from http://www.nbaindia.org/docs/10th_authority_meeting.pdf on 10.12.08

[17] Downloaded from http://www.nbaindia.org/docs?12th_authority_meeting.pdf on 10.12.08

[18] Downloaded from http://www.thehindubusinessline.com/2007/10/10/stories/2007101050390800.htm on 10.12.08

"Access" analysed

Below are some examples from amongst the approvals shared by the NBA post-RTI application where access could have perceived or direct commercial gains, but no benefit-sharing is even determined. In some cases here for example the case of hair and blood samples of the wild ass, there is no public information on the reasons for granting such access:

Table 7: Details of select approvals granted by the NBA

Purpose of access/approval	No. of applications cleared	No. of applications withheld/rejected/ under process	Kind of benefit-sharing determined in the approval letter	Examples of applicants
Research/ Bio-survey/ Bio-utilisation	15	25	None	Dr. Rikako Kumura, Director, Research Institute on Human-Equids Relationships: access to hair and blood samples of Indian Wild Asses (*Equus hemionus khur*)[19]
Transfer of Research Results	4	0	None	Maharashtra Hybrid Seeds Company Ltd. (MAHYCO), for Collaborative Research involving parental seeds of eggplants to develop fruit and shoot borer resistant transgenic eggplant. Transferee: Bangladesh Agricultural Research Institute[20].
Intellectual Property Rights	228	24	5% royalty if patent is licensed/ transferred, or 5% of net sales of the co. if commercial production	Nandan Biomatrix Ltd. for an IPR on Invention preparing aqueous & non-aqueous extract of *Safed musli*[21]
Third Party Transfer	7	4	None	Pepsico India Holdings Pvt Ltd, Gurgaon, Haryana for access to dried *Kappaphycus alverzii* and export of seaweed to Malaysia (details not uploaded on the website, agreement dated 28.9.2007)

It is clear from all of the above, that the legislation and its implementation thrust do not recognise the intricate link between biodiversity, related knowledge and communities. Therefore it will prove difficult to channelise benefits of any commercial use of resources and knowledge back to the communities. Further, there is also no definition of 'prior informed consent', therefore it does not ensure the space for communities to decide on the use of their resources and knowledge. The BD Act in principle therefore, maintains that the State owns the resources of the nation and has the right to allow use of the same in any way that it deems fit. The above inference is all the more substantiated in the analysis of approvals granted, showing that no consultation with local communities took place in granting approvals and no case was cited where benefits were routed back to the community. National sovereignty has not been translated into community sovereignty over resources and in time, the continuation of this process will entirely disenfranchise communities from their resources and knowledge.

[19] Downloaded from http://www.nbaindia.org/approvals/form-i/abr-pdf/dr.rikakokimura-8005.pdf on 10.12.08
[20] Downloaded from http://www.nbaindia.org/approvals/form-ii/trr-pdf/dr.madhavi-b.char-1962.pdf on 10.12.08
[21] Downloaded from http://www.nbaindia.org/approvals/form-iii/ipr-pdf/b.jayakumar-796.pdf on 10.12.08

4. Benefit-sharing guidelines: Under construction

On 19th December, 2007, New Delhi the United Nations University – Institute of Advanced Studies (UNU-IAS) and the Ministry of Environment and Forests, Govt. of India co-organised a "Brainstorming Session" in collaboration with the National Biodiversity Authority (NBA) of India, to identify the elements of benefit-sharing guidelines to be developed under the Biological Diversity Act, 2002.

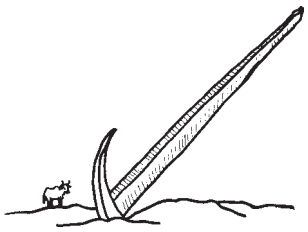
At this meeting Dr. K. Venkataraman, Member Secretary, NBA laid down the challenges faced by the NBA with respect to benefit-sharing, which included:

- Question of extent of value addition that can be done to qualify for exemptions.
- Difficulty in fixing extent of benefits to be shared when the genetic resources (GRs) form less that 2-3% of the total product
- Mechanism to identify beneficiaries
- Handling of research products
- Lack of clarity on what constitutes a fully Indian company and foreign entity
- The problem of ensuring payment of benefits

Minutes of this meeting suggest that UNU-IAS was to develop draft guidelines by February 2008, which was done by mid-2008. On 27th August 2008, the MoEF called for a meeting with the SBBs to discuss the content of the same. Till date, the draft has not been opened to the public for comment and feedback.

A look at one version of the draft (shared informally) indicates that while the writers have quite adeptly laid out the complexities of the benefit-sharing and the issues at hand; there are no conclusions as to how it will be operate in the Indian context. The draft guidelines seek further guidelines, and conclude:

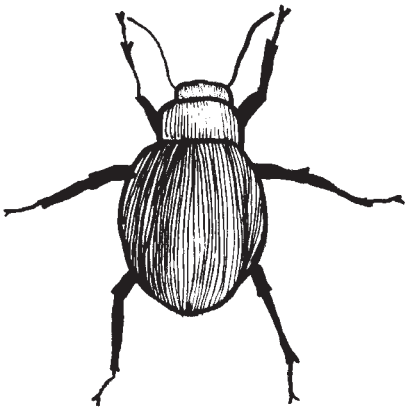
> *"Complexity should not be an excuse for inaction: Several countries are postponing national actions on ABS issues, either waiting for the completion of negotiations for an international regime or (for) want of experience. Realising ABS is a contentious and complex issue; we need to begin actions – however imperfect they may be – to (make) progress. Local and national actions ensure better experience and ability to participate in discussions on further developing and negotiating the international regime on ABS. In the absence of such actions we will continue to gape in theoretical scenarios and wishful thinking based on little reality."*



5. Where do we stand?

Close to six years after the legislation was enacted, 315 applications for access have been approved, more than half of which are approvals for IPRs, and the guidelines for access and benefit-sharing are still under discussion and remain inconclusive.

All of the points raised above point to the dearth of transparency, monitoring, impact assessments and all other mechanisms that should be precursors to any kind of access being granted.



Chapter 4: CONSERVATION UNDERMINED

1. Introduction

'Biological resources' has been defined in the Act as "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 does not include human genetic material."

Drawing from the objectives of the Convention on Biological Diversity (CBD), presumably, one of the primary objectives of the BD Act is to be the conservation of biological diversity and its constituent parts. The legislation in its current form, does provide evidence of this objective, seen in certain clauses. It has been argued that the conservation-related provisions are not as strong or significant as those clauses on access to biodiversity. Nevertheless, the conservation clauses do provide a number of responsibilities that the governments are bound to pursue.

Activists, who have been involved with the drafting of the Biological Diversity Bill, 1997 which evolved into the current legislation, affirm that one of the first drafts of the legislation was oriented towards providing mainly a system of regulating access to biodiversity. It was after much advocacy and intervention by activists that the conservation sections found mention in the final BD Act, 2002.

The implementation of the law thus far, do not further the conservation provisions, even as they exist. Although the CBD emphasises the importance of conservation with the involvement of indigenous and local communities, the efforts in the implementation of the BD Act appear to be focused towards facilitating access to biological resources and knowledge than towards conservation. Chapter 3 shows that the approval of applications for accessing biological diversity and knowledge seems to take place at galloping speeds that are simply incomparable to the more ambulatory if not dawdling pace at which conservation clauses are implemented.

Today there are disappointments both in the parent treaty – the CBD and with the BD Act. Where internationally, the CBD has been criticised for being diluted by objectives of trade in biological resources, in the national law, 'conservation' is discussed in the same breath as 'commercial utilisation', blind to known conflicts in these two objectives, and irrespective of enquiring whether in actuality such utilisation is sustainable at all.

2. Conservation provisions in the Act

This section presents details of what the BD Act contains on the subject of conservation, and what the result of such attention to it (or otherwise), has meant, over the last six years.

Duties of the Central Government

Certain clauses of the BD Act provide the duties and responsibilities of the Central Government (in its Ministry of Environment and Forests) towards ensuring conservation. These are contained in Section 36 of the BD Act and they are summarised below:

i) As per the provisions of the BD Act, the Central government is obliged with the responsibility of developing national strategies, plans and programmes for conservation and the promotion and sustainable use of biological diversity. This includes measures for the identification and monitoring of areas rich in biological resources, promotion of in in situ and ex situ conservation of biological resources, incentives for research, training and public education to increase awareness.

i) The Central Government is required to issue directives to concerned state governments to take immediate ameliorative measures if there is reason to believe that any area, rich in biological diversity, biological resources and their habitats, is being threatened by over-use, abuse or neglect.

ii) The BD Act also requires the Central Government to integrate conservation and the promotion and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies, 'as far as practicable, wherever it deems necessary'.

iii) The Act necessitates that the Central Government take measures for the assessment of the environmental impact of projects which are likely to have an adverse effect on biological diversity, with a view to avoiding or minimising such effects and where appropriate provide for public participation in such assessment.

iv) The Central Government is obliged to take measures to regulate, manage or control the **r**isks associated with the use and release of living modified organisms resulting from bio-technology which are likely to have adverse impacts.

v) The Central Government must endeavour to respect and protect the knowledge of local people relating to biodiversity, as recommended by the NBA. This includes the registration of such knowledge at the local, state or national levels as well as *sui generis* mechanisms.

At the same time, the NBA *may* advise the Central Government on matters relating to conservation and related activities and also advise the state governments on selection of areas of biodiversity importance. The fact that the Central Government is not mandated by law to seek the advice of the NBA, raises the issue of how much power and clout the NBA has against its nodal ministry, which is also responsible for other conservation laws.

The Central Government along with the NBA are mandated to take appropriate steps for the conservation of threatened species and also designate institutions as repositories of biodiversity.

Duties of the State Government and SBBs

The state governments and SBBs can have the power to undertake the following actions:

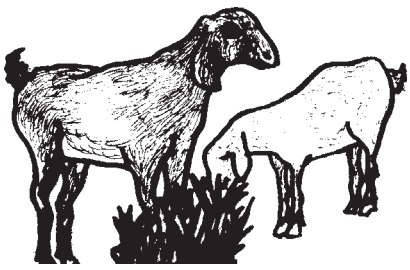
i) Restrict, prohibit and order any activity which is contrary to conservation and sustainable use objectives once it receives intimation for access.

ii) Identify and declare Biodiversity Heritage Sites in consultation with local bodies.

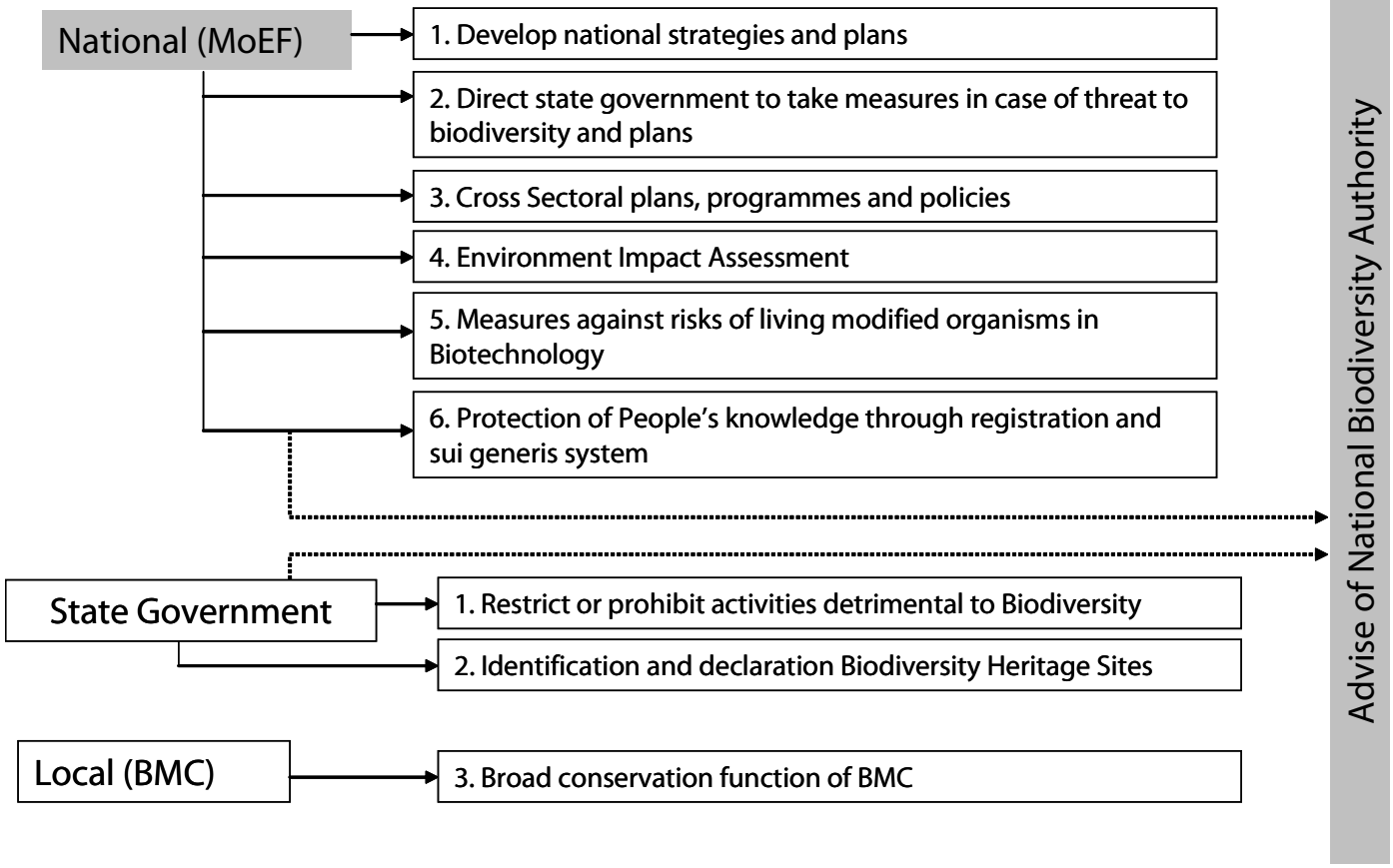
However, there are no reported instances where the above actions have actually been taken by the state governments or the SBBs.

Duties of the BMCs

Biodiversity Management Committees (BMCs) have an express mandate of promoting conservation which includes preservation of habitats, conservation of land races, folk varieties and cultivars, domesticated stocks and breeds of animals and micro-organisms and recording of knowledge relating to biological diversity. However, they do no have clear powers, especially powers those related to regulating access over biological resources. This severely limits the precautionary measures that communities can take, through the BMCs, towards conservation.



CONSERVATION DEFINED



3. Has conservation taken place?

It is clear from the previous section that the maximum onus and responsibility for conservation under the BD Act is entrusted with the Central Government. The implementation focus of the BD Act has centred on conservation clauses in a limited way. Some details are:

a. The making of Strategy Action Plans for biodiversity: Of the six duties of the Central Government mentioned in the earlier section, none has actually precipitated into concrete action. The BD Rules. 2004 also don't elaborate on these. The MoEF has finalised its version of the National Biodiversity Action Plan which can be regarded as the furtherance of one its duties. However, the process of drafting this plan had been initiated in 2000, well before the finalisation of the BD Act. A stand-off between the Technical and Policy Core Group (TPCG) - the drafting team, (see box) and the MoEF on the Final Technical Report of the National Biodiversity Strategy Action Plan (NBSAP). This happened before the NBSAP could be morphed into the MoEF's version which it would then submit to the CBD as per India's obligation as a signatory.

India's NBSAP Saga

From 2000 to 2003, India's Ministry of Environment and Forests (MoEF) facilitated the National Biodiversity Strategy Action Plan (NBSAP) process, under GEF/UNDP sponsorship. Technical coordination was assigned to Kalpavriksh, a non-governmental organisation, who in turn worked in conjunction with a 15-member Technical and Policy Core Group (TPCG). Over four years, the NBSAP process involved well over 50,000 people, making it possibly the largest such exercise in the world. Over 70 local, state, inter-state, and thematic action plans were prepared by communities, academics, government officials, NGOs, students, and others. Widespread grassroots consultation was carried out through public hearings, biodiversity festivals, workshops and seminars, marches, boat rallies, questionnaires, and outreach through mass and folk media. The UNDP and other international organisations hailed this process as a "best practice" that other countries could learn from. Based on this process, a final draft NBSAP was submitted to the MoEF at the end of 2003. It contained comprehensive recommendations on how to achieve the conservation of biodiversity, sustainable use of biological resources, and equity in decision-making and benefit-sharing relating to such resources.

Source: http://www.ukabc.org/eco_cop8-4.pdf

However, from 2004 onwards the TPCG and the MoEF reached a deadlock when it came to accepting the final technical report and making it the basis of the country's National Biodiversity Strategy and Action Plan (NBSAP). Various reasons may be attributed to the deadlock, but the important lesson was that it severely undermined the widespread planning exercise which the MoEF itself internationally owned and propagated on earlier occasions. The result was also that none of the state, local and eco-regional plans received any formal acknowledgement as part of the national level exercise. In short, those plans were simply forgotten.

When no headway was made with the MoEF, despite discussions and negotiations, the Final Technical Report (FTR) was published as a People's Plan by the TPCG and citizens' groups in October 2005.

In August 2007, the MoEF released its draft National Biodiversity Action Plan (NBAP). Upon public demand, the revised draft was made available on the MoEF's website (http://.envfor.nic.in) on August 31, 2007, inviting comments from all stakeholders. The revised draft reflected very little of the FTR done by the TPCG and only about a third of the strategies recommended in the FTR were covered with no justification given for leaving the rest out. In November 2008 the Union Cabinet gave its approval to the NBAP[22].

b. Missing impact assessments: The example of the approval given by NBA to Pepsico (See Chapter 3 for details) for the cultivation and transfer of an exotic invasive seaweed, is a good example to show how the NBA has not been carrying out Impact Assessments, as warranted by the BD Act, before giving approvals to access resources and knowledge. Given the fact that the BD Act does not provide for decentralised monitoring of access with the help of communities or the BMCs, the hurried approvals unaccompanied by any impact assessment, does not auger well for the achievement of the conservation objectives of this law. The tardy implementation however, provides much room for ecological disasters as in the above case, where recent reports reveal that the invasive exotic species of seaweed has already caused damage to the ecologically sensitive Gulf of Mannar Marine Biosphere Reserve and National Park.

c. Limitations in the Expert Committees' guidelines: The NBA has constituted Expert Committees on Rare, Threatened, Endangered and Endemic Species, Agro-biodiversity, Medicinal Plants, Soil and Microbial Diversity, Repositories etc. While many of these committees can expand the scope of their activities in facilitating efforts, their terms of reference has a limited mandate. Guidelines have been prepared; thrust areas have been determined; lists of threatened species have been prepared, but none of these have translated as yet into any direct conservation action as of September 2008

[22] Downloaded from http://pib.nic.in/release/release.asp?relid=44593 on 10.12.08

(For progress and decisions taken, see Chapter 2). It is important to understand that the mere issuance of guidelines does not imply concrete conservation actions or necessitate that they are being implemented.

d. Biodiversity Heritage Sites: Biodiversity Heritage Sites (BHS) have been advocated as one of the most specific and creative mechanisms prescribed for conservation in the Act. Some also regard it as the oasis in the BDA, with clearly specified, although limited, conservation mechanisms. Being broad in its scope, it allows for flexibility in approach and can bring within its fold, appropriate conservation and management regimes for single or multiple ecosystems, which is often not the case with other laws. Agro-biodiversity rich landscapes without a forest interface could greatly benefit from being declared as a BHS.

The NBA has put together set of guidelines for the declaration of the same. These were available for public comment in June 2008. However, the Member Secretary, NBA stated in a personal communication that the MoEF has taken the view that the NBA does not need to play any guiding role in this, as the onus of the same lies entirely with the state governments. SBB members on the other hand have highlighted the need for some guidelines on how they can go about implementing the provisions related to such sites.

The section on the BHS in the BD Act has a critical clause which requires some clarification. It reads, "*The State Government shall frame schemes for compensating or rehabilitating any person or section of people economically affected by such notification*" Most livelihood and conservationist groups have expressed apprehensions that this clause if not clarified through guidelines, then this provision is likely to meet the same fate as the conventional Protected Area model of National Parks and Sanctuaries under the Wild Life (Protection) Act, 1972. The biggest apprehension is that the BHSs also might principally lead to the relocation of communities and curtailing of rights.

Critique of the NBA's Draft Guidelines on Biodiversity Heritage Sites

One of the problems with the guidelines is the fact that ownership of communities over resources has been undermined in most stages of declaring a BHS, including in its identification, declaration, documentation and management. A Technical Support Group (TSG) dominates the process of identification, declaration and management of the -Biodiversity Heritage Sites. The drafts guidelines state that the TSG will facilitate the survey, documentation, conservation and management of the BHS. The draft guidelines do not specify who will be on the TSG but only that it will be constituted by the relevant SBB.

These guidelines also do not pay attention to the role of communities in the BHS identification, declaration and management but rely heavily on BMCs, which are not necessarily representative of the communities (see Chapter 2 on Institutional Structure and Chapter 6 on Community Control for details).

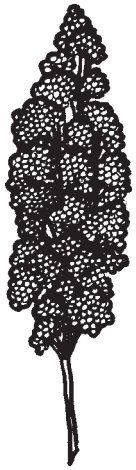
The process of declaring Biodiversity Heritage Sites has been initiated in Karnataka and Madhya Pradesh (MP) by their State Biodiversity Boards. There are no details for MP publicly available. At the time of finalising this report in December 2008, there was updated information that the state of Tamil Nadu, Punjab and Andhra Pradesh have either identified BHS areas or are in the process of doing so. However, it maybe noted that is has happened only after 6 years of the legislation being in place.

The Karnataka State Biodiversity Board has declared the Nallur Tamarind Grove in the Devanahalli Taluk of Bangalore Rural District as a BHS. The report uploaded on the State Biodiversity Board's website (www.kbbindia.org) says that the 'investigating team' consisted of researchers and naturalists. The grove is presently being managed by the State Forest Department and a brief management plan recommends the involvement of local people in conserving the area. This clearly relegates the primary responsibility of the management of the BHS with the Forest Department, and an additional supplementary role for local people in designing or implementing the management plan[23].

[23] For more details, check: http://www.kbbindia.org/pdf/Report_Nallur%20Sacred%20Groove.pdf

To fulfil the objective of conservation and sustainable use, the acknowledgement and recognition of the diversity of wisdom cultures in India, is mandatory, as these are also congruent to the principles of natural resource preservation. Instead, the role of the communities is only marginal within the scheme of the BD Act. Consequently, the tasks of conservation and monitoring biodiversity use, falls on the shoulders of the NBA and the SBBs which is a tall order considering the job at hand. Presently, the NBA lacks both funds and personnel. In the given scenario, any conservation that does take place will be, by virtue of chance or coincidence.

Is conservation possible without the active involvement of the communities who are often in closest contact with the biological resources due to which their relationship and knowledge of the resources is constantly evolving? The broader debate on conservation and livelihood applies to the discourse on this legislation as well. Are the objectives of conservation, sustainability and benefit-sharing possible without the implementation of the principles of decentralisation? The BD Act touches upon the role of communities in a cursory manner but is devoid of any provision that will ensure that community-based conservation practices become an integral part of determining access, use, custodianship of knowledge and local biodiversity management.



Chapter 5: DOCUMENTATION OF BIOLOGICAL DIVERSITY: Who does this serve?

1. Introduction

Tribal peoples, indigenous groups, traditional healers and community knowledge holders (rural and urban) across India have deep and vast wisdom cultures related to the conservation and use of the natural resources surrounding them. This ranges from the use of plants or animals in health systems to traditional farming techniques in sync with the climatic conditions and nutritional requirements of the community. Communities have for generations used diverse methods to both conserve and transmit this existing knowledge amongst them. This traditional knowledge has been kept alive either orally, through songs, or rituals and festivals, etc. But due to various reasons including industrial expansion, loss of habitats, unplanned construction, highway building, rapid urbanisation and so on, the biodiversity and its associated knowledge systems are gradually eroding. At another level, there is an increasing thrust on commodifying biodiversity and the associated knowledge as 'resources' and bringing them under the 'protected' regime of commercially exploitable Intellectual Property Rights (IPR) such as patents, plant varieties protection, geographical indications, among others. IPRs, however, are unsuited to the realities of informal knowledge systems, where there is neither a sole identifiable "inventor", nor is the community-held knowledge regarded as a commodity to be traded. This raises the critical question of the erosion of the many informal knowledge systems intricately and intrinsically linked with the sustenance of biodiversity.

In this midst there has been much debate and discussion over documentation of biological resources and the associated knowledge. On the one hand it has been felt that it is critical to record as much as is currently known so that it is not lost forever. On the other hand, there are genuine concerns of the misuse of this recorded knowledge by those other than the knowledge-holders. Documentation and the debate around this topic is not new. There have been regular efforts of government, NGOs and community-based organisations to record biodiversity and people's practices towards rural education, urban awareness and income generation. Organisations claim that it is a proactive process of community empowerment that instils a sense of pride and collective identification with the resources, knowledge and culture.

The focus of researchers and scientists on the subject of knowledge "protection" is evident from the various 'official' processes towards documentation of Traditional Knowledge (TK) that are ongoing in the country today. One of the foremost processes of documentation that has been initiated under the Biological Diversity Act, 2002 is the preparation of People's Biodiversity Registers (PBRs). A detailed methodology has been developed by the Expert Committee (EC) on Database on Biodiversity and Traditional Knowledge headed by Prof. Madhav Gadgil for country-wide documentation.

While the intent of those in favour of documentation through PBRs might be towards conservation, there are issues that plague its implementation in the trade-driven world. Before one delves further into the issues surrounding the documentation process set forth under the BD Act, it is important to ask - *Can documentation ensure conservation and community control over resources and guarantee against the piracy of knowledge?*

2. Question of intent

According to the minutes of the second meeting of NBA's Expert Committee (EC) on Database on Biodiversity and Traditional Knowledge, documentation of biological resources and traditional knowledge through PBRs is just one of the many processes that will feed into the creation on the Indian Biodiversity Information System (IBIS).

The overall objective is the creation of a national interoperable[24] framework connecting the various scattered datasets within the country which include *"wild and domesticated biodiversity, commercial uses of biodiversity, technologies, Intellectual Property Rights, literature and experts, as well as natural resource management regimes and development activities, within a spatial framework incorporating landscapes, topography, land use and administrative boundaries*[25]."

The formulation of PBRs, is therefore, only a part of this huge process of creation of a national database.

According to the Second Meeting of the EC on Database on Biodiversity and Traditional Knowledge, four specific discipline databases, which are already at different levels of development, shall be encouraged as part of Phase I of IBIS.

(a) Biodiversity and Bio-resources Databases and their Network Programmes (NCL Centre for Biodiversity Informatics, IBIN, BTIS, ENVIS, ARIS, etc.),

(b) People's Biodiversity Registers (PeBINFO),

(c) Spatial Datasets (IIRS, NRSA, ISRO, etc.), and

(d) Traditional Knowledge Databases (TKDL, FRLHT, NIF, and CTKDL)

Compared to the other components of the national database the PBR process is of unique significance considering that it is the only process among the others, that aims at collecting knowledge *directly* from the "country's barefoot ecologists and grass-roots innovators[26]" and compiling it as part of a larger digital database. This network of data is then to serve as a base for all efforts at conservation, economic exploitation of bio-resources, knowledge protection, benefit-sharing and so on.

Fears are being expressed civil society and community level representatives about the efficacy of such a system. It is important to understand whether the PBR methodology and moreover, its implementation will truly direct itself towards conservation, sustainable use and equitable sharing of benefits as mandated under the Biological Diversity Act 2002 or whether these objectives are being compromised in any manner.

The politics of terminology PBRs v/s CBRs

There is a distinction between the terms 'People's Biodiversity Registers (PRBs)' and 'Community Biodiversity Registers (CBRs)' and the debate on this is significant to the political process relating to documentation of biological diversity and associated knowledge. Community-based organisations have argued that the replacement of the term 'community' implies a change in the leadership of the documentation process. The politics is related to who controls and leads the methodology and process of preparing biodiversity registers.

Some community-based organisations view CBRs as tools which strengthen the control and autonomy of communities over seeds, media, market and food. CBRs are based on the belief that knowledge is NOT property, but meant for sharing; a belief that has passed on for centuries in these cultures and traditions. CBRs are therefore not mere documents but a process by which community members gather together to share, revisit, teach, learn and document their knowledge. In such a process communities become sovereign custodians of their knowledge base.

CBRs are thus different from the PBRs proposed by the NBA Expert Committee, with the latter's reliance on digitised and technical formats and also the constant requirement of a Technical Support Group (TSG). There is an inherent hierarchy in this process. Local knowledge and expertise is therefore made to bow down to an alien system of knowledge and expertise represented by scientists, teachers, students etc. as the latter 'validate' the information provided by the former.

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[24] Presentation by Dr. Vishwas Chavan, Scientist at the NCL, Pune made at 2nd meeting of the EC on Database on Biodiversity and TK, on Interoperable Framework for Connecting Biodiversity Databases.

[25] Introduction on the Overview of the Indian Biodiversity Information System (IBIS) by Prof. Madhav Gadgil, Chairperson of the Expert Group on Database on Biodiversity and Traditional Knowledge.

[26] Presentation by Dr. Vishwas Chavan, Scientist at the NCL, Pune made at the meeting on Interoperable Framework for Connecting Biodiversity Databases.

3. The 'Legal' PBR process

PBRs are meant to be based on principles of community-based conservation and should take into account aspects of local culture and confidentiality. Documentation was to aid communities to assert their control over and facilitate in situ conservation. Though these ideals found expression in first Methodology Manual for PBRs prepared by Madhav Gadgil, Centre for Ecological Sciences, Bangalore and Agharkar Institute Pune for the National Workshop on PBRs in June 2006. However, it seems to have disappeared completely by the time the new 'Simplified Methodology' for PBRs was introduced for public comment in February 2008.

It is interesting to note that the focus of the EC since its inception was not as much on PBRs as on the compilation of "authentic and valid" databases that already existed with organisations and departments. This compilation was purely an academic exercise which involved 'experts' and aimed at establishing a Biodiversity Research Centre[27]. Documentation through PBRs on the other hand, was a community-led conservation exercise at its inception. The difference in ideology between the two processes is obvious and as activities on PBRs dominated the EC's focus, the earlier radical and decentralised ideology made way for a dominant "scientific" top-down agenda.

4. What is happening within the NBA on documentation?

Documentation timeline

Table 8: Timeline indicating progress on documentation

Activity	Date
Setting up of the Expert Committee on Database on Biodiversity and Traditional Knowledge	August, 2004
First Meeting of the Expert Committee (EC) on Database on Biodiversity and Traditional Knowledge	December 2005
Second meeting of the EC	February 2006
First Methodology Manual on PBRs	June 2006
National Workshop on PBRs	June 2006
Announcement by the NBA on the creation of the Indian Biodiversity Information System[a]	January 2008
Simplified PBR methodology uploaded on NBA website for public comments[b].	February 2008

a. Downloaded from http://www.thehindu.com/2008/01/15/stories/2008011554000500.htm on 10.12.08
b. Downloaded from http://www.nbaindia.org/docs/comments-the-piblic.pdf on 10.12.08

4.1. The PBR methodology progress

The National Biodiversity Authority released the 'Simplified Methodology' for 'Peoples' Biodiversity Registers in February 2008 for public comment. The methodology aims at a 'participatory' process of documentation, headed by a Technical Support Group. It also provides various formats for details of BMCs, of agro-biodiversity, livestock, local healers, wild biodiversity, faunal diversity, landscape, waterscape, peoplescape, wild biodiversity in the village areas and different formats for urban areas, that need to be filled.

[27] Downloaded from http://www.nbaindia.org/docs/minutes_meet2.pdf on 10.12.08

PBRs are to be prepared by BMCs under the guidance of SBBs and a Technical Support Group (TSG) which would consist of "experts" drawn from various disciplines, government line departments, universities, research institutes, colleges and schools and non-governmental organisations. The Technical Support Group would provide technical inputs and advice to the BMCs on the identification of plants and animals, monitor and evaluate the PBR exercise, examine confidential information, provide advice on legal protection and maintain a database of local and external experts on biodiversity. They would be trained by the respective State Biodiversity Boards.

The PBR would be "enclosed" (term used in the Simplified Methodology on PBRs) by the BMC and later publicised in the *gram sabha*. The PBR guidelines do not mention anything specifically for urban areas though it has supposedly been prepared keeping in consideration rural, urban and protected areas ecosystems. For urban areas, the guidelines say that the PBRs would be different and the present format would have to be customised and used appropriately. The PBR, it says, should be periodically updated with additional and new information as and when generated.

Process defined for PBRs in the proposed methodology

- Undertake sensitisation of the public.
- Training of members in identification and collection of data on biological resources and traditional knowledge.
- Collection of data through literature reviews, Participatory Rural Appraisal (PRAs) at the village level, household interviews, individual interviews with village members and direct observations.
- Analysis and validation of data in consultation with Technical Support Group and the BMC.
- Preparation of People's Biodiversity Register (PBR).
- Computerisation of information and resources.

The first Methodology Manual of 2006 and the Simplified methodology describes the PBR as an important base to address the issue of patent claims. It is seen important document in the legal arena as evidence of prior art and hence it affirms that 'careful documentation is necessary'. *Prior Art* or *State of the Art* is a terminology stemming from patent laws, where any knowledge or considered prior art cannot be claimed as something novel and patentable. So the current PBR process with its link to the PeBInfo (People's Biodiversity Register Information System) and IBIS (Indian Biodiversity Information System) has a mandate beyond conservation. While accepting the IPR regime (just as the BD Act does), the PBR process seeks to undertake documentation towards a data base where India as a nation state is able to establish *prior art*.

Ironically, the Manual also says that the PBR can be a very useful tool in the management and sustainable use of biological diversity and would be very useful teaching tool for imparting environmental studies at schools, colleges and at the university level. While this might be useful in principle, the primary objectives of conservation and livelihoods get overshadowed.

4.2. Peoples' Biodiversity Information System (PeBINFO)

A Relational Database Management System (RDMS) called PeBINFO was designed at the Indian Institute of Science, Bangalore for the purpose of managing the information collected through the PBRs.

The NBA website explains that the PeBINFO is a Relational Database Management System (RDBMS) by which the linkages between various aspects of the information contained within the PBRs would be organised efficiently. This includes information on species, their habitats, biological produce, prices of biological produce, harvesting and transport of biological produce, regulations governing harvests, regulations on people's ways of using and managing biodiversity resources, local knowledge of uses and management of biodiversity resources.

This Database Management System incorporates six major categories, namely: (1) People and institutions, (2) Knowledge, (3) Concerns, (4) Activities, (5) Species and other taxonomic categories, and (6) Habitats.

"…A Relational Database Management System ensures that while the information may be recorded bit by bit, and organized in a number of independent tables, the inter-connections are kept in view." [28]

4.3 Indian Biodiversity Information System (IBIS)

The second meeting of the EC in February 2006 recommended the creation of the IBIS which would have to be constructed in the following manner:

"(a) by organising the data that would be generated specifically through new activities mandated by the Biological Diversity Act, 2002,

(b) while at the same time, taking advantage of several existing initiatives.

Hence, the concept of the IBIS is not to establish a centralised database, but linking access to databases managed by individual government and non-governmental, including industry custodians".

IBIS would therefore be a "*distributed network of databases, linked by common standards and protocols, each managed by the relevant custodian".*

IBIS intends to serve two broad functions - that of promoting conservation and management of biological resources as well promoting the value addition of these resources and their associated knowledge. This would be coupled with the equitable sharing of benefits. Therefore the intent of the IBIS is clearly not limited to conservation. It aims at protecting biological resource with a clear intention of it being of commercial use.

Who are the 'custodians' of IBIS?

"…. custodians, would, for instance, include the National Biodiversity Authority, all the State Biodiversity Boards, all District level organisations managing the information collected through all the Panchayat and Municipality level Biodiversity Management Committees, government agencies such as the Planning Commission, the Patents Office, the National Bureau of Plant Genetic Resources, the Zoological Survey of India, the Central Drug Research Institute, industries such as Dabur Pharmaceuticals and so on." Minutes of the Second meeting of the EC on Database on Biodiversity and Traditional Knowledge

This three-tier model of collection and management of the documented information at every stage takes it away from the real knowledge holders. Those who are the providers of information are not the custodians nor do they have control over its management and use. The official state-sponsored documentation processes and objectives are fraught with concerns for local communities and conservation alike. The following sections in this chapter discuss some of these concerns.

[28] Source: http://www.nbaindia.org/docs/ec_pbr_manual.pdf

5. State updates: Documentation unabated

Table 9: State updates on documentation process

Sl.No.	State	The status of the PBR documentation process
1.	Goa	BMCs set up in five villages in Bardez (2), Pernme (1), Ribander (1) and Bicholim (1) blocks *(talukas)*
2.	Punjab	BMCs set up but at a very preliminary stage (numbers not known)
3.	Karnataka	67 PBRs prepared
4.	Kerala	6 PBRs initiated
5.	Madhya Pradesh	Entrusted the preparation of PBRs of 96 villages to various NGOs. The year-wise number of PBRs proposed to be prepared by the State Forest Department of MP State: 2007-2008 (500 PBRs); 2008-2009 (600 PBRs); 2009-2010 (750 PBRs); 2010-2011 (750 PBRs); 2011-2012 (750 PBRs)
6.	West Bengal	11 BMCs set up in different districts including Darjeeling, Hoogly, West Medinipur, 24 Parganas, Jalpaiguri, Bankura and Murshidabad. PBR activities have been initiated at Futigoda gram panchayat under Jaynagar II P.S. (24 Parganas South District) through a Project granted by the Department of Environment to Lokmata Rani Rashmoni Ashram an NGO at Nimpith (24 Parganas South), though the BMC is yet to be constituted.

Source: www.nbaindia.org and updates from SBB members

Maharashtra State-level PBR Study Group

The Study Group in the state of Maharashtra is a 'thinking group' on the BD Act and similar legislation, comprising of about sixty people from different fields and geographical areas. The objective of the 'thinking group' is to study the BD Act and related legislations in detail. This group has specifically focused on PBRs, their objectives, the process and issues involved. The group is also studying the possibilities of linking PBRs with National Rural Employment Guarantee Scheme (NREGS) and it being a tool for local level Natural Resource Management (NRM). The study group works with the help of organisations like Rural Communes, Mumbai, Centre for Experiential Learning, Naringi, Medicinal Plants Conservation Centre, and individuals like Dr. Madhav Gadgil and Shri. Mohan Hirabai Hiralal.

6. BMCs and PBRS: The limited role

BD Rule 22.6 determines what the BMCs have to do when it comes to PBRs:

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

The BMCs are then only data providers for a process steered by members of the NBA expert committees and SBBs. With no guidelines for the formation of BMC or PBRs, the custodians of PBRs are determined by players other than communities (even the BMCs aren't involved in this) and the PBR process is insistent on taking community knowledge into a national domain of 'protection'. The control completely rests with the nation state rather than with decentralised regimes.

"Unless the BMCs are formed, the question of Peoples' Biodiversity Registers (PBRs) under the Biological Diversity Act, 2002 does not exist."

A.K. Ghosh, President, ENDEV, Kolkotta.

"BMCs should be strengthened. The fact that the BMC has a right to consider every decision being taken and adapt every decision made to the local condition needs to be acknowledged at the level of policy formulation. Space for customary institutions and processes must be advocated for."

Shri. Mohan Hirbai Hiralal.

National Consultation on Community Control over Knowledge, Pastapur, Andhra Pradesh, August 2007[29].

Karnataka villagers suspect biodiversity register

KIRTIMAN AWASTHI

… Uttar Kannada district in the Western Ghats is known for its rich biodiversity and traditional knowledge. Preparing a proper biodiversity register should not have been a problem for the people in Heggarni. But when G M Bhatt, president of the Biodiversity Management Committee of Heggarni, approached villagers for the register, the response did not convince him. "People have not given details of prescriptions, compositions and the methods used to cure ailments the traditional way using plants with medicinal properties. The information we have might be incomplete. In some cases, people have just mentioned plants but haven't revealed how they use them for treatment," says Bhatt. Villagers say they would rather be careful. K K Naik of Birijaddi village in Heggarni fears if he and others reveal "their knowledge", it will be appropriated by multinational companies and they will lose control over the knowledge and resources. Garcinia gummigutta or Malabar tamarind, for instance, was overharvested recently when it was discovered that the herb contained a chemical that could cure obesity. Soon the herb was in short supply in the region.

Source: http://www.downtoearth.org.in/full6.asp?foldername=20071215&filename=news&sec_id=4&sid=8

7. The warning signals

The National Conference on Peoples' Biodiversity Registers (PBRs) organised by the National Biodiversity Authority held in June 2006 declared that:

"People's Biodiversity Registers must be documents of the people, by the people and for the people."

It highlighted various concerns with respect to the process of documentation especially with the implementation of the BD Act. The concerns were related to the fact that the formulation of PBRs should be buttressed with other provisions of the BD Act like the formation of BMCs, provision of legal control of PBRs to the communities among other concerns, to ensure the fulfilment of the objectives of the law like the protection of traditional knowledge, ensuring equitable benefit-sharing and sustainable use. It therefore made some critical recommendations[30]. The participants at the meeting adopted a precautionary note and highlighted the need to develop guidelines for providing control of the PBRs to communities through legal means and for also for providing control of executing the PBR exercise and the setting up of Biodiversity Management Committees (BMC) to communities as these would be the main channels of data collection (see Chapter 6 for details). This was reccomended to be done within 6 months to a year from June 2006. It was stressed that a system of the management of the confidential information would also need to be worked out.

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[29] See Report titled *National Consultation on Community Control over Knowledge* downloadable from http://www.kalpavriksh.org/campaigns/campaignsbd/Community%20Control%20over%20Knowledge%20-%20REPORT.doc

[30] Downloaded from http://www.nbaindia.org/pbr/pbr_recommen(22_23_jun_06).htm on 10.12.08

While many of these were not implemented, what did get attention was the setting up of the IBIS and also the preparation of the simplified PBR methodology which continues to be under fire from civil society.

Quite ironically the recommendations of the meeting also indicated the documentation and dissemination of various methods that communities "are using to prepare PBRs, including in the case of PBRs that communities do not want to incorporate into a national system." The NBA Expert Committee, however, indicates that PBRs contain flexibility, but puts forth a recommended methodology and format which is clearly beyond being actionable by local communities unless assisted by the Technical Support Group.

8. The critical issues

Ignoring the recommendations of the Conference on PBRs two years ago (See chapter 7 for more details), in February 2008, the NBA uploaded the simplified methodology sans alteration, on its website to take forward the process of PBR formulation under the BDA. Following this, several groups and organisations who were organised as part of the *Campaign for Conservation and Community Control over Biodiversity* reiterted their con cerns once again[31] in 2007 to the NBA and its Expert Committee.

Objective of the PBR exercise: It is not clear from the methodology as to what the objective of carrying out a PBR exercise at a national scale is. Is it only to establish prior art (at the national and international level) to prevent bio-piracy, or is there a larger vision towards ensuring effective conservation and sustainable use of the nation's biological resources and knowledge by empowering state and local institutions and communities?

Role of the BMCs: The document completely misses mentioning the role of BMCs in conservation as stipulated in the Biological Diversity Act, 2002.

Methodology for whom?: Who is this methodology meant for? Is it for BMCs, SBBs, NGOs? This is important to know since the text of the methodology has several statements which expect a certain process to be followed by a certain agency/individual (organising a group meeting), but it is not clear who it is directed at. This also links to the next two points.

Formats not community-friendly: The format to be used by local communities for inventorying their resources and knowledge cannot be done without the assistance of a Technical Support Group.

The issue of control: It is not clear from the Simplified Methodology released or any other supporting circular of the NBA as to who controls the PBRs once they are prepared. Is the role of the BMCs only to "maintain and validate" the PBRs with no legal control over them? Further, what is the process of seeking prior informed consent from communities who are the custodians of the knowledge and resources being documented? These issues needs total clarity before engaging with the preparation of PBRs.

Inter-relation between BMC, Panchayat and the TSG: It is not clear who drives the process with the BMC? Who elects/selects the Technical Support Group (TSG)? If one is to assume that the methods and equipments mentioned in the document are to be used, it is unlikely to be people from the local community. It is then externally driven, it could remain a mere documentation exercise with little buy-in from local people. This needs clarification in the document. What is also not clear is whether there is there any relationship or linkage between the BMC, the local body/ panchayat and the TSG especially with regard to steering the process of documentation and finally controlling the document? This also needs to be clarified.

Ensuring participation of disadvantaged sections: Though the Simplified Methodology released recommends that the exercise should be participatory and involving both genders, the methodology document is not clear on *how* this is to be ensured, given the fact that there are often strong knowledge hierarchies amongst persons from diverse knowledge, class, language and gender backgrounds? The document needs to give clear guidance on how to tackle this challenge.

Superficial objective: What is the purpose of documentation in its present proposed form to establish *prior ar*t or to strengthen conservation and livelihood interface?

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[31] Reference: 1. Letter to the Chairperson, NBA from participants of the *National Conference on Community Control over Knowledge* (held in Pastapur, Andhra Pradesh, 8-9.08.2007) on concerns and recommendations regarding PBRs, dated 13.09.07. Reference 2. Letter to the Chairperson, NBA from *Campaign for Conservation and Community Control over Biodiversity* on the Simplified PBR Methodology, dated 25.04.2008.

Questionable foundation: Why are PBRs being pushed through when there no guidelines for BMCs, PBRs, Access and Benefit-Sharing (ABS) are in place. Moreover, communities have no control over the documentation (legally and otherwise) once the PBR information is fed into nationalised databases. There is no mechanism to ensure confidentiality of the information recorded.

Who are the experts? The PBR process clearly determines that the experts are those who are in the Expert Committees and in the TSG and not experts from communities who are the real custodians of the knowledge being recorded.

Legal protection for People's Biodiversity Registers sought

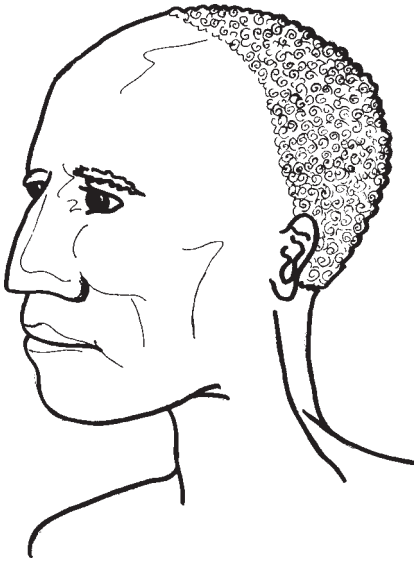
The Hindu, 2nd October 2007

Aarti Dhar

NEW DELHI: Environmentalists have sought legal protection for the People's Biodiversity Registers (PBRs), being promoted by the National Biodiversity Authority (NBA) under the Biological Diversity Act, 2002 to ensure protection from biopiracy.

Welcoming the model of PBRs being projected by the National Biodiversity Authority, particularly its promotion of local adaptability, its potential use as a community-based planning tool, and for linking it to the new laws such as indicated in the draft rules of the Scheduled Tribes and Other Forest Dwellers Act to document indigenous knowledge of communities, they, however, point out that the move to integrate PBRs into a national database without either providing them legal protection or ensuring effective community control, enhanced the risk of biopiracy[32].

[32] Source: http://www.hindu.com/2007/10/02/stories/2007100256590300.htm



Chapter 6: COMMUNITY CONTROL & THE BD ACT

1. Introduction

In most of the chapters in this status report, we have attempted to highlight how the text of the law and subsequently its implementation has seriously limited community control over biodiversity, the associated knowledge, its use and protection. This chapter attempts to illustrate the following questions:

- Does the law facilitate the sovereignty of communities by providing clear decision-making roles to communities on the subject of control over access to biological resources and communities' associated knowledge of the same?
- Does the law enable communities to continue with the traditional practices both of sustainable use and conservation?
- What mechanisms do communities have to challenge government decisions?
- On the whole, how does the legal framework perceive the role of the communities?
- Do local communities have legal safeguards within the BD Act against the appropriation of their biodiversity resources and knowledge?

To understand the limited role of communities in a law like the BD Act and it objectives, one would need to understand the extent to which a trade-oriented regulatory regime has made inroads into law-making and its violation. In decision-making scenarios, the diversity of life and its multiple uses at the local scale has moved from being respected for its intrinsic value to being seen as biological resource having an economic value for trade. The traditional cultures which have so far lived through an interconnected and spiritual link with nature, based on mutual respect and dependence, are deeply challenged; both externally and from within. Government regulation is steadily falling in step with a dominant world view which commodifies biological diversity, products and services that it provides, as well as people's knowledge of this. This paradigm shift necessitates that control and power over biological resources shifts out of the local into the global.

The BD Act draws from the Convention on Biological Diversity (CBD) which is founded on the principle that local communities dependent on biodiversity and their knowledge, innovation and practices related to it should continue to benefit from its use. The CBD recognises the contribution of local communities to the conservation of biodiversity. It affirms that national governments should, subject to their national legislation, "*respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application … and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practice*" (Article 8j). National governments are also expected to "*Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements*" (Article 10c)

"If the signatories to the CBD are to meet their obligations, it is crucial that the rights of indigenous peoples and local communities are fully recognized and implemented. It is equally important that the conflict between the recognition and protection of these community rights and private monopoly rights is acknowledged, and a clear boundary line is established to stop private IPRs from encroaching at an increasing rate upon the collective domain of biodiversity and related knowledge." Source: GRAIN[33]

However, the drafting of the BD Act, its text and subsequent implementation unfortunately do not further the above principles.

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[33] Source: TRIPS versus CBD: *Conflicts between the WTO regime of intellectual property rights and sustainable biodiversity management*. Global Trade and Biodiversity in Conflict, Issue no. 1, April 1998, GAIA/GRAIN (Download from http://www.grain.org/briefings/?id=24)

2. What the law does and does not provide for

Exemptions under the BD Act for local communities

Section 7 of the law says that local people and communities, including growers and cultivators of biodiversity, *vaids* and *hakims*, who have been practicing indigenous medicine, do not need to give prior intimation to their respective SBB, like other Indian nationals, registered institutions or corporate bodies, to access biological resources for commercial exploitation, or bio-survey or bio-utilisation. Seen through the lens of community control, the following issues can arise out of this clause of the law:

a) Role of communities in granting access, restricting access or revoking clearances

The BD Act attributes the roles of conservation and preservation of resources and knowledge to the communities. The accompanying BD Rules however, as somewhat of an anti-climax, reduce this role to merely documenting information on resources and knowledge. The community-based institutions (constitutional or traditional) and the BMCs have little or no role to decide on access, restrict its use or revoke any permission, both for resource or knowledge

There are only two instances where the role in the text, is invoked in practice:

i. Communities come into the picture when the NBA or SBB needs to "consult" the BMC before grant of approvals for access or transfer of research results/germplasm as well as IPRs. The term "consult" has a track record of eliciting dubious connotations in India, as it has almost never translated into prior informed discussions. Neither does the term mean that the opinions of those being consulted are binding upon or even seriously considered by decision-makers. Predictably, none of the 315 approvals given by NBA till September 2008 make a mention of consultations with any of the BMCs formed until then. This is despite the fact that it is mandatory that the NBA and SBB carry out consultation processes.

ii. The BMCs can levy fees for the use of biological resources in their area, which will be part of a Local Biodiversity Fund. However, the power to grant approval for access to biological resources and knowledge, for which the afore-mentioned fees can be levied, is firmly vested with the NBA or SBB.

b) Who determines benefits, its sharing and its recipients?

The absolute authority of determining benefit-sharing mechanisms after access is granted rests with the NBA. Although, the sharing of benefits needs to follow mutually-agreed terms and conditions between the applicant, the concerned local bodies and benefit-claimers (as defined in the law), the process of facilitation and determination is controlled by a national level body.

If benefit-sharing involves transfer of money, the NBA can direct the amount to be deposited in the National Biodiversity Fund. If however, the biological resource or knowledge is accessed from a specific individual or a group or organisations, the NBA may direct that the amount be paid directly to such individual or group of individuals or organisations.

Again, the BMCs (least of all the concerned communities) as a whole do not have seem to have an assured or even foreseeable role in these critical decisions. The extent of participation and involvement depends entirely on the discretion of the NBA.

As of September 2008, there are no guidelines for benefit-sharing and granting approvals for access that contain any indication that communities will be involved in developing the terms and conditions on benefit-sharing.

Given where the power lies, it is worth repeating that, without a complete overhaul of the existing process and structure of the law, benefit-sharing will be reduced, in its most dishonourable sense to a token appeasement gesture, while the available monetary compensation paves the way for greater trade in biological resources and people's knowledge.

c) Communities as mere data providers for documentation

The main function of the BMC is to prepare the People's Biodiversity Register (PBR) in consultation with local people. The Register shall contain comprehensive information on the availability of and knowledge about local biological resources, their medicinal or other use and any knowledge (traditional and otherwise) associated with them. Local communities are evidently relegated to the status of 'data providers' with no control over the design of the PBRs and very little say on how the documented information will be used. (Details in chapter 5).

There have been exceptions as in villages such as Mendha-Lekha in Gadchiroli District of Maharashtra and Heggarni in Uttara Kannada District of Karnataka where communities have creatively used their discretion in the best manner in the documentation process. In Mendha-Lekha, villagers documented their knowledge independently and linked it to the National Rural Employment Guarantee Scheme (NREGS) for employment generation, and also chose not to document confidential information. In Heggarni, the BMC has simply refused to undertake written documentation, given the threats that surround the centralisation of their PBRs. In both cases, informed choices were taken by the communities, but these remain only exceptions. The norm is what is witnessed in places like Madhya Pradesh, where the PBR process relied more on numbers and ignored the quality of process.

d) Conservation roles not elaborated

The conservation role of BMCs (not the communities as a whole) has been acknowledged within the BD Act but has not been given any teeth either in the BD Rules or in government orders. This is seriously and acutely undermines community control. Even with respect to Biodiversity Heritage Sites (BHS) by the State Governments, the draft guidelines envisage almost no role for communities in the process of identification, declaration and management of such sites. A minute role that has been allotted for BMCs since they are seen as being integral to the institutional framework of the BD Act (Chapter 4 contains details).

e) Representation on NBA, SBBs and Expert Committees.

Community representation is totally lacking when it comes to the powerful decision-making bodies. There is not even a symbolic representation within the NBA or its Expert Committees. Even in the composition of SBBs, where community representation would be plausible, the provisions of the BD Act ensures that this unfairness persists (see Chapter 2 for details). Neither the NBA nor the SBBs are required by law to adopt any mechanism or follow any process of accountability towards communities through the BMCs. This in effect means that communities have very little space to question the use of a biological resource or its associated knowledge which they hold.

f) Redressal and dispute settlement

There are provisions within the BD Act for the settlement of disputes between SBBs or between an SBB and the NBA, but there is no mechanism in the case of disputes within BMCs. There is also no clear provision by which a BMC can raise an objection on a decision taken by the NBA or SBB, including against an approval for access. The only suggested recourse for BMCs in this law is the same recourse available to a common citizen, to appeal to the concerned High Court (see Chapter 2 for details). The same holds good for the determination of an offence or a penalty for illegal or improper access to biodiversity. Only a 'benefit-claimer' can raise any objection, which limits such a possibility to specific persons in a given village or town. Even for a 'benefit-claimer', there is a prescribed procedure, which mandates that he/she notify the NBA before making the objection.

g) The question of transparency

Aside from the existing problems regarding centralised (and top-down) decision-making and the pitiable space for community participation, the added woe that exacerbates these troubles is that of poor transparency in the implementation of the BD Act. As mentioned before, the only information available on the number of approvals given till date is on the NBA website which is not accessible to a vast percentage of the masses in rural India.

Moreover, the information available on these approvals on the website is limited and oftentimes does not contain meaningful information such as the geographical location where the resource would be accessed, or information on who was involved in the decisions related to granting such access or deciding on benefit-sharing, if applicable. Inexplicably, there is little or no information on the access to resources and knowledge by Indian nationals (including registered institutions and corporate bodies) (See chapter 2 for details). Needless to say, this is the state of affairs despite the provisions of law requiring that the NBA give notice regarding all its permissions/approvals.

3.State rules and community rights

Some State-level Biodiversity Rules have tried to move beyond the limitations of the Central Rules to give communities more power over their resources and this has considerably increased their role in decision-making around use of biological resource and protection of related knowledge. However, this does not really make a dent in the centralised nature of decision-making and although these State Rules are binding on SBBs, they don't influence the decisions of the NBA.

Table 8: Comparison between Central and select State Rules

Points of comparison	Central Rules (2004)	Madhya Pradesh State Rules (2003)	Sikkim State Rules (2006)
Defining 'Consultation'	The term 'Consultation' has not been defined.	The term 'consult' includes the following steps: (a) Issuing of public notice, in local languages, about the proposal for access/collection; (b) Discussion/dialogue with the General Assembly of the local body; and (c) Formal consent from the Assembly.	
Protection of rights	No such clause/definition exists	The State Board will devise methods to ensure protection of rights including intellectual property rights over biological resources and associated knowledge including systems of maintaining confidentiality. 'Rights' may include community rights as well.	No such definitive clause
Composition of State Board (representation of local communities)	No such clause in the BD Rules.	Out of the five non-official members, two shall be from local communities.	
Revocation/ restriction of access	Access granted can be revoked on account of overriding public interest ('public interest' is not defined). Access can be restricted if it adversely affects local livelihoods.	Access granted can be revoked on account of overriding public interest with reference to the protection of the environment and conservation of biodiversity, protection of rights, livelihoods and knowledge of local communities. Access granted can be restricted if it is likely to adversely affects local people, livelihoods, culture or the indigenous knowledge of the local people.	

The fact to contend with is that given that the states can not go against the Central Act, the Central Rules will take precedence over State Rules if conflict occurs. Also, the provisions put forth by these states are based on certain principles of decentralisation and equity whose implementation should have been ensured by the BD Act itself. The existing gap will manifest itself in decision-making and policy formulation in other aspects of the law such as benefit-sharing, the declaration and management of Biodiversity Heritage Sites and in the likely marginalisation of communities in the decision-making process.

Chapter 7. CITIZENS' CONCERNS: From ignorance to indignation

Civil society concerns on the legislation date back to the days when it was a Bill. Several conservationists and environmentalists had sent their feedback and engaged with the drafting process till it went to a Parliamentary Committee. This section however highlights people's responses over the last few years on the implementation of the law. The concerns are on the extent of community control, the role of communities in decision-making, documentation through PBRs and the NBA chairperson's endorsement of genetic engineering. A fair bit of the information presented has been drawn from the collective efforts and actions of the ongoing *Campaign for Conservation and Community Control over Biodiversity* (hereafter the Campaign, for more details see www.kalpavriksh.org) and related processes. Over the last five years several letters, petitions, collective memorandums as well as in-depth discussions at regional and national meetings have been carried out as part of the Campaign. These were both the deliberate on the legislation and also to debate specific aspects such as documentation.

The section highlights some important positions in varying aspects of the law and its implementation which have been presented in the previous chapters:

> *"We are concerned that the Act is more of an "access" legislation facilitating trade in biological resources and screening applications on related traditional knowledge. The law and its implementation do not address or reverse in any way the wave of privatization and corporate control over people's resources" PRESS release: Food, Trade and Nutrition Coalition-Asia (FTN-Asia) and Centre for Community Economics and Development Consultants Society CECOEDECON based out of Jaipur, Tuesday 22 May 2007 – International Day for Biological Diversity*

1. Lack of basic knowledge

At most regional and issue-based meetings of the *Campaign*, community members, representatives from various organizations and State Biodiversity Boards have expressed the need for more information. Their requests have included demands for translations of the legal text into regional languages, the dissemination of information on risks and potentials in the BD Act. In order to develop among people, a greater understanding of the issues with the BD Act and to enable their genuine participation in various discussions, government agencies should exhibit a readiness to share information Do we want to word it like this?. The BD Act can easily be regarded as one of the legislations in the country with little popular debate throughout its six years of existence. One reason for this could be that the matter of access to germplasm may not appear as an immediate threat (e.g. *What's the problem in accessing a few leaves or blood samples?).* A more probable explanation for the poor attention this law receives can be attributed to the limited efforts that its creators expended towards public outreach and awareness. The discussions on the BD Act have largely remained within 'expert' and scientific circles. At various regional workshops organised as part of the ongoing Campaign, many have reacted strongly against the exclusivity of the debates. Many have even pointed to the lack of information within the government itself on the status of existing biodiversity-related practices.

What the people say![34]

The law and its implications need to be simplified for mass awareness. The politicians need to be educated about the same. **Raghu Jardhari, Beej Bachao Andolan**

Some of the north-eastern states that have been given autonomous status under the 6th Schedule already have laws. The new laws would be a superimposition over these existing rights. **Amba Jamir, The Missing Link, Guwahati**

[34] The quotes used in this chapter are statements and comments made by participants at the various regional and national meetings organised as part of the Campaign for Conservation and Community Control over Biodiversity.

2. Call for greater community control

The earlier chapters highlighted the extent of community control in the task of conservation, protection of knowledge or decision-making on local biological resources and people's knowledge, showing how it has been one of the most ignored aspects of the BD Act and its implementation. In almost all aspects of the legal framework, including redressal and dispute settlement mechanisms, this remains a missing link.

As these lacunae became known, communities and civil society groups began organised and strident protests. Aside from the frequency of these protests, the content of the issues they have raised, merit special attention and mention.

Gram panchayat resolutions to the PM

Gram Panchayats and communities have organised collective actions twice over the last four years sending resolutions and postcards to the Prime Minister of India (For details, see Chapter 6). The first action followed the introduction of the BD Rules, 2004 that was believed to adversely affect communities' livelihoods and their participation in conservation. A number of meetings and discussions were held and letters were written to concerned authorities. Letters were also written to Members of Parliament to intervene during the period when the BD Rules were placed before the parliament for discussion. Finally, in September 2004 at Hyderabad, it was decided that a rally would help highlight the issues related to the BD Act and Rules. Meanwhile about 250 village panchayats passed resolutions saying that they would not implement the BD Rules unless changes were made. In December 2004, about 300 community representatives from Himachal Pradesh, Chattisgarh, Delhi, Andhra Pradesh, Karnataka, Maharashtra and Chhattisgarh held a rally leading up to the MoEF office in New Delhi. Noted activists and representatives of non-governmental organisations participated in this. A memorandum highlighting concerns with BD Act and Rules was submitted to Mr. A. Raja, the Union Minister of Environment and Forests, at that time.

The second collective action was in early 2007, when more than 3000 resolutions were sent from different parts of the country to the Prime Minister, expressing resentment against the limited space given to communities in the legal framework and the government's lack of response to the same. Gram panchayats, tribal councils and community representatives from Tamil Nadu, Andhra Pradesh, Orissa, Uttar Pradesh, and Meghalaya resolved not to cooperate with any of the activities of either the NBA or the SBB unless the following principles were recognised.

Community Resolution[35]

1. "Control over all aspects of local biodiversity and related knowledge must be with the local communities, with government departments helping us to tackle the threats that these face from destructive development and commercial forces.

2. Our knowledge is our heritage and not for sale. Therefore we shall not be compelled into any process that reduces it to a tradable commodity which can be privatized.

3. Documentation of local resources and traditional know-how ought to be voluntary in any form and manner as the community decides, and needs to be legally protected against misuse by outsiders.

4. NBA, SBBs and all relevant government institutions must recognize existing social formations and customary groups that are the real biodiversity managers, and empower gram sabhas or village councils to decide on whether or not to set up new Biodiversity Management Committees (BMCs)."

5. Local people's access to biodiversity and its benefits, and the sharing of these benefits amongst local communities, must be given priority over and above commercial trade; we will allow neither misuse by corporates nor appropriation by governments."

[35] Extract from the main text of the resolution, which was translated in more than five different languages and sent from five states to the PM in the period of two months. A covering letter accompanying this was sent on 27th April 2007.

Extract from the covering letter to the Prime Minister on 27th April 2007

"Through these resolutions the panchayats, local institutions and community representatives wish to draw your attention to a matter of decentralized governance that holds significance for the lives of millions of farmers, forest-dwellers, fishers, and pastoralists in India. Specifically, the Panchayats and local institutions have resolved not to constitute Biodiversity Management Committees (BMC) as mandated by the Biological Diversity Act, 2002, as its relevant Rules (2004) completely undermine the role communities can play in the conservation of biodiversity.

As you are aware, communities have an intrinsic link with natural resources, in particular biodiversity, for both survival and livelihoods. It is therefore important, to sustain this link and in the spirit of decentralized governance, to ensure greater community control over biodiversity and over the traditional knowledge that such communities have evolved.

…Gram Panchayats, local institutions and community representatives in India have passed resolutions expressing their dissatisfaction over the Biodiversity Acts and the way these Acts are taking away the control of community over their resources.

… We urge you to consider this matter with urgency and direct the Union Ministry of Environment and Forests to seriously consider revising the legislation towards ensuring greater community control and involvement in decision-making around biodiversity."

What the people say!

"If, so far, farmers and farmers' organizations have not been consulted in the formulation of these laws, there is no reason why we should follow them. We have become like bullocks whose mouths are tied so we do not feed on the good crops. We are being restricted from making use of our own resources. If these laws, he said, are not a result of farmers' want or need, the interest behind their formulation cannot be pro people." **Vijay Jardhari, Beej Bachao Andolan, Uttarakhand**

"We must push for community-centric amendments within the Act". **Kulbhushan Upamanyu, Himalayan Niti Campaign, Himachal Pradesh.**

"In Nagaland, communities rule. When the Biological Diversity Act was enacted, there was confusion on whether it will impinge on the ownership of land and resources. People are wary of formation of BMCs as people are already burdened with too many committees and their activities. Who will ensure protection of knowledge, avoid misrepresentation and ensure women's participation? ….We have to be careful of romanticizing community control as communities are vulnerable to external pressure. …Involvement of cademicians will validate knowledge systems." **Amba Jamir, The Missing Link, Guwahati**

In pursuance of the Biological Diversity Act, Uttarakhand has already set up its State Biodiversity Board, but the people have not been taken into confidence while setting this up, and even the various Biodiversity Management Committees at the Panchayat level are yet to be established. Before such committees are set up, we wish to say that the local people must have a say in determining how best their local landscapes are to be managed. The CBD principle of national sovereignty must translate into community sovereignty for truly local level decision-making on resources and application of local know-how. Local communities whose very lives depend on the living world and the wisdom culture which keeps their identities and the biological diversity alive best understand the need for preservation of biological resources not only for safeguarding their livelihoods but also for maintaining ecological balance which keeps the Earth alive and with it, its many diversities. **Biju Negi**[36]

[36] Source: Press release on the occasion of The International Day for Biological Diversity, Tuesday 22 May 2007.

3. Affirming sovereignty: Debating the PBRs

The debate on documentation exemplified in the PBR process under the BD Act has been discussed a great deal in Chapter 3.

This was thoroughly discussed and debated at the *National Consultation on Community Control over Knowledge* held in Andhra Pradesh in August 2007. Over 30 participants from ten states (Punjab, Delhi, Uttarakhand, Orissa, Andhra Pradesh, Tamil Nadu, Maharashtra, Kerala, West Bengal and Meghalaya) attended it, including farmers, scientists, civil society organisations, the Chairpersons and representatives of two State Biodiversity Boards (Kerala and Andhra Pradesh respectively). A letter from the participants of the consultation to Dr. Kannaiyan, NBA Chairperson, on 13th September 2007, stated the following:

> *"Though the potential of documentation of biodiversity and related knowledge as a means to conservation was acknowledged, there was unanimous agreement that this needs to be voluntary and not imposed upon local communities. The same is the case when it comes to linking their existing or ongoing documentation and/or PBRs to any regional, national and international databases.*
>
> *The group felt that while the model of PBRs being promoted has some advantages, including its promotion of local adaptability, its possibilities as a community-based planning tool, and for implementing recent laws such as on Forest Rights and Employment Guarantee, there are also many pitfalls, especially since there is still no legal protection for PBRs, and because the NBA is proposing to promote its model of PBRs as the only methodology for documentation across the country. Additionally, the move to integrate PBRs into a national database without either providing them legal protection or ensuring effective community control, enhances the risk of biopiracy. Finally, the concern was raised that while PBRs are supposed to be prepared by Biodiversity Management Committees in each panchayat, there was still no framework of processes by which such Committees were to be formed."*

The group also issued a press release highlighting their concerns and shared the letter sent to NBA with the media.

In February 2008, the NBA released the **'Simplified Methodology' on Peoples' Biodiversity Registers** for public comment. The methodology overlooked all the earlier suggestions and recommendations made by civil society on the issue of documentation. 26 representatives of community-based organisations, researchers and activists from twelve states sent a letter to the NBA Chairperson again, on 25th April 2008 reaffirming earlier concerns raised. The following points were highlighted regarding the proposed methodology of preparing the PBRs:

1. The objective of a PBR exercise needs to move beyond the confines of providing 'prior art' to ensuring effective conservation and sustainable use of the nation's biological resources and knowledge by empowering state and local institutions and communities.

2. The PBR methodology document completely omits mentioning the role of communities (including BMCs) in conservation as stipulated in the Biological Diversity Act, 2002. The following points were raised on this subject:

   a. The formats are not usable by communities without external assistance. This reduces the independence of communities.
   b. There is no mention of translating the methodology into local languages to ensure greater involvement at local levels.
   c. There is no mention of ensuring communities' legal control over the PBRs.
   d. There is also no mention of a mechanism of seeking prior informed consent from the communities for documenting resources and knowledge.

3. Clarity is lacking on the basic mechanism by which the PBR methodology would become functional. Certain questions remain unclear:
   a. Who is the methodology meant for? It is unclear who will undertake the task of making the PBR.
   b. It is not clear who drives the process with the BMC. The relationship or linkage between the BMC, the local body/panchayat and the Technical Support Group is vague especially with regard to steering the process of documentation and finally control over the information recorded in the PBR?
   c. The mechanism to ensure participation of both the genders remains indistinct.

"We sincerely feel that without a thorough debate and pro-active steps by the government on the above issues, we should not go ahead with a mass PBR exercise at the national level. Neither the concerns highlighted by several groups over the last year or so, nor the NBA's own workshop recommendations, have yet been followed up. These steps are essential before embarking on a country level documentation process which has far reaching ramifications."

Letter sent to the NBA Chairperson, 25th April 2008

What the people say!

*"We should make People's Biodiversity Registers. The farmers should sit together and make them. They should be open and transparent so that the individuals' knowledge becomes community's knowledge. This is not one- time knowledge but passed on from one generation to another. By making these registers we can revive the knowledge of our ancestors which is not just limited to grains but biodiversity in its holistic sense. When it comes in open, is discussed and debated it can help conserve the rights of the local people and small farmers. But is should not be limited just to writing, audio visuals should also be registered."***Chinna Narsamma, woman farmer from Deccan Development Society, Andhra Pradesh.**

Documentation outside the Act would be impossible, and within the Act would mean leaving the database open for sharing with the Government for research and other purposes. **Rahul Saxena, Lok Vigyan Kendra, Himachal Pradesh.**

"The government was pushing for legal binding at disclosure of geographical origin, benefit sharing etc. at international levels but did not make efforts to spread the information at the communities. Look at the example of the art of handloom weaving which has been 'pirated' by foreign companies. How, in this scenario, would we be able to protect our traditional knowledge?" **Jebra Muchahary, Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, North East Zone, Guwahati.**

"There might also be cases where communities may not want to share or divulge information that they may consider sacred or economic benefiting. The aspect of confidentiality is not adequately addressed in the present system of documentation.""One farmer in Nagaland in one season cultivates sixty traditional varieties of crops. This is an example of in situ conservation. These local names of the plants also reflect the diversity. It is the same with the dress that was originally worn by the tribals, which reflected the diversity in plant and animal species. In some cases, because the names divulge the characteristics of the crop/plant, it is not taught to adolescents who may misuse its properties. Therefore, all these aspects would need to be taken into account while undertaking any process of documentation, which the present process recommended by the NBA does not. Documentation is important, but the process, is equally significant. **Vengota Nakro, NEPED, Nagaland.**

"If it (traditional knowledge) is digitized, how will it be protected? I don't want TK to be served as a platter to the MNCs" **V.S. Vijayan, Chairman, State Biodiversity Board, Kerala.**

4. Seeking transparency

There is no way by which local communities and common citizens can track the implementation of the BDA openly, such as the number of approvals granted, the Expert Committees formed, progress on benefit-sharing exercises. Some of this information has now begun to be made available on the official website of the NBA. While minutes of meetings are uploaded, the transparency with regard to the details on approvals granted is minimal. Upto April 2008 the approval letters (leave alone agreements) were not available on the NBA website. Even today, one cannot find all the details of geographical area of access, communities involved, benefit sharing, etc.

In September 2007, a Right to Information (RTI) application was sent to the MoEF as part of the *Campaign for Conservation and Community Control over Biodiversity* seeking the following information on the approvals granted by the NBA:

- List of approvals granted by NBA till date for all purposes including IPR, third party transfer, access for research and commercial utilisation, for transfer of research results.
- Copies of the approval letters/agreements related to these agreements.
- Copies of the minutes of meeting where these approvals were discussed and granted.

As in many similar instances of obtaining information from government agencies, this information too was requested through the Right to Information Act, 2005. Earlier requests for information had not yielded any response despite reminders from the applicants.

After a long period of silence even after the submission of a second appeal before the Central Information Commission (CIC: the highest appeal body of the RTI Act, 2005), a final appeal to the Central Information Commission was made on 13th March 2008. On 31st March 2008, details (limited) of only about 56 approvals reached the *Campaign* office when the NBA official website claimed that 268 approvals had been granted till November 2007.

The CIC was therefore requested to invoke Section 4 of the RTI Act, 2005, and direct the MoEF and NBA towards full public disclosure of the requested information. As a response, the NBA has uploaded copies of approval letters but not all. On the whole, critical information such as geographical location of resource access, benefit-sharing or existence of traditional knowledge (for cases seeking IPR), involvement of local communities/BMCs (through the mandatory process of consultation) etc. is still missing. It was only after the CIC hearing and order passed on 3.10.2008, that the full set of approval letters and agreements were uploaded on the NBA website. (See chapter 3 for more details)

5. Protesting conservation omissions

A major lacunae discussed at length during the regional meetings of the *Campaign* has been the neglect towards the conservation objective of the BD Act. The BD Act itself provides little by means of ensuring effective conservation of biological resources and knowledge (See Chapter 4 for more details) and even these are severely watered down in the implementation.

There is a strong feeling of discontent among civil society about the way conservation measures are planned within the BD Act, where the controls and implementation roles are dissociated from local communities, relying instead on a slew of scientists and experts to perform these functions. Although this dissatisfaction has not been communicated formally to the NBA, either through letters it is a concern shared by many organisations and individuals. They can see the shift of control from communities to 'experts' and corporates, and the shift of focus from conservation to commerce as deepening the crises arou nd biodiversity.

What the people say!

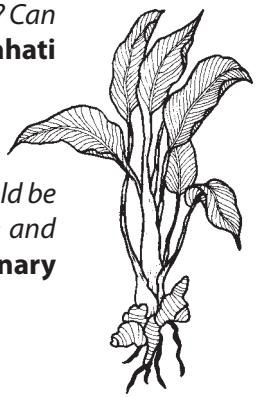
"The aspect of conservation in the BD Act has been added mainly because of its 'intellectual sale value'". **Kulbhushan Upamanyu, Himalayan Niti Camapaign, Himachal Pradesh.**

"The aspect of conservation in the BD Act has been added mainly because of its 'intellectual sale value'". **Kulbhushan Upamanyu, Himalayan Niti Camapaign, Himachal Pradesh.**

"For conservation, only traditional methods will be successful" **Banteiliut Lyndoh, Ri Pum Foundation, Smit, Shillong.**

"Biological diversity has been preserved through cultural diversity. The process of conservation should therefore be initiated through the communities." **Usha Lachungpa, Department of Forests, Environment and Wildlife Management, Government of Sikkim.**

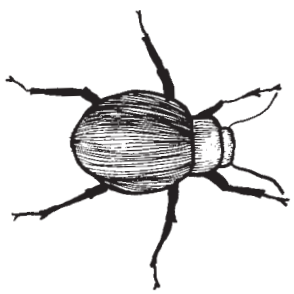
"One look at the issue of the declaration of Biodiversity Heritage Sites (BHS), some key questions arise. These begin with what is a biodiversity rich area? Can elephant corridors which critically need to be protected for conservation be considered as biodiversity rich? Can a river bed be declared as a BHS?" **Dr. PC Bhattarcharya, Dept. of Zoology, Guwahati University, Guwahati.**

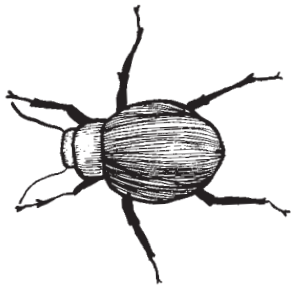


"The communities need to be given the power to conserve. Alternative livelihoods should be provided. For example in Kaziranga National Park, communities help in the rescue and rehabilitation of wild life." **Dr. Prasanta Boro, Veterinary surgeon, Mobile Veterinary Services,(MVS) Upper Assam, Wildlife Trust of India.**

6. Questioning commitment

In one instance, civil society groups directly demanding accountability from the NBA for its commitment to the conservation of the nation's biological diversity. This is was primarily a reaction to the NBA Chairman's comment that Genetic Engineerning (GE) is the answer to malnutrition problem of India. Since there is a clear opposition by groups working on conservation of biodiversity and traditional knowledge, such statements were not seen as becoming of a person who officially occupies the office of the Chairman of the NBA. The use of GE is highly controversial in the agriculture sector and clearly seen as a threat to biodiversity. It would help to mention that contrary to the NBA Chair's stand, some State Biodiversity Boards like that of Kerala are strategically moving towards the implementation of a GM free state[37].





[37] Downloaded from http://ifeg.wordpress.com/2008/04/21/kerala-reiterates-its-no-to-gm-crops-foods/ on 17.12.08.

The NBA's endorsement of GM crops

On 18th January 2008 several regional and national newspapers quoted the NBA Chairperson stating: *"…genetically modified crops are the only answer to increase the production and productivity and to solve malnutrition problem in the country…I am surprised to note that many non-governmental organisations are shouting from rooftops against the introduction of GM crops. They are either ignorant about the ground realities or have some ulterior motive…".*

The Biological Diversity Act of 2002 acknowledges the potential hazards of genetically modified organisms. Section 36.4 (ii) of the Biological Diversity Act 2002, states

*'The Central Government shall undertake measures to 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'...*Given the position of the BD Act towards genetic modification, it was ironic that the head of the NBA (the prime implementing agency under the BD Act) was un-restrained in his appreciation of genetically modified crops, despite the gravity of his position and responsibility towards the conservation of biological diversity and protection of people's resources and knowledge on it.

Citing the provisions of the BD Act and the clauses of the CBD people's movements and community groups expressed grave apprehensions that the implementation structure comprising of Biodiversity Management Committees at the grassroots, as per the BD Act, will be misused and these would instead function as Biotechnology Management Committees. On 26th January 2008, the groups wrote to the NBA Chairman urging him to withdraw his comments, render an apology and invoke the spirit of Section 36.4 (ii) as a precautionary conservation measure. They also demanded that if these actions were not done, he would need to resign as the chairperson of the NBA.

Chapter 8: CONCLUSION

Biological diversity is under severe threat. While this fact has been officially recognised, little is being done under the formal regulatory system to incorporate peoples' concerns or acknowledge the urgency to maintain its intrinsic existence, respect its inherent link with people's knowledge, and safeguard against its overuse for trade and commercial interests.

The challenge for a biodiversity-rich country like India is not only to preserve its biological wealth alone, but to also ensure that its conservation and use translates into the well-being of its peoples. Biological resources and the knowledge associated with it have the potential to generate wealth, where the term extends beyond its mere monetary value. If biodiversity laws themselves contribute to inequities, either through their content or in their implementation, then the need for such laws comes into question. If granting access to biodiversity creates both an ecological and a livelihood crisis then the law and its implementers need to be scrutinised. A law such as a biological diversity conservation legislation should, by virtue of its content and purpose suffice to convince people about its intent. Regrettably, despite dealing with the subject of conservation of biodiversity, is fails to do so. Even a powerful biodiversity law, is rendered ineffectual in a policy milieu which effortlessly and frequently shifts control over biological resources from communities to corporations, facilitating resource exploitation and biodiversity destruction.

The management of biological resources and related knowledge, by the State, should be assessed against this backdrop. The thrust of the implementation so far clearly shows that the neoliberal paradigm of "growth" leaves little room for concerns related to community sovereignty or even biodiversity conservation.

The emphasis under the Act on identification of endangered species and documentation of biological resources in itself does not mean conservation is guaranteed. In fact by making such information accessible without adequate safeguards if at all there can be in such a case, may even contribute to further biodiversity loss and the disenfranchisement of the local people's who have until now been its sole guardians. The documentation and inventorisation, given the political economy of control over resources, shows no significant progress towards either conservation or livelihoods objectives, in the period before and after such data collection.

Further, the BD Act, as elucidated in the preceding chapters, has moved ahead, oblivious to local communities' role in conservation and continues to press on in the same vein on other concerns such as the provision of access to resources or associated TK, and concerns about PBRs. Consistently, the law relegates the role of communities to that of secondary stakeholders, choosing instead to rely on scientists or bureaucrats, who would only have a partial picture of the ground reality. Local people would already have their existing soft laws on how both social and ecological justice can be meted out within the collective interests of communities.

What is most ironical is the fact that communities are termed as 'benefit-claimers' after access to resources have been granted to others. The community's conservation functions, through officially recognised and newly-appointed committees, has till date not been elaborated upon. Guidelines for these committees at the village level and their functions are yet to be developed.

Where then, is one to steer the next course? Is it indeed possible to re-organise the current regulatory regime, its focus and priorities to ensure that conservation becomes the foremost priority while safeguarding community concerns? This will entail protecting both what remains of our biological diversity as also the associated knowledge which cannot be separated from the biological resource.

This report demonstrates that biodiversity regulation is critically linked to the idea of community sovereignty. Unless local decision-making and control over biological resources and their knowledge becomes a reality, the latter will be continue to be treated as the property of the nation state which is intent on commercialising these resources. The responsibilities of the State need to be redefined, given the role it has played thus far in biodiversity 'regulation' and 'knowledge management'. There is need to examine and highlight the implications of the commercialisation of biological resources and knowledge.

More voices need to rise collectively against privatisation and illusionary promises pledged by its supporters, of creating great wealth, even as it results in increasing disparities and injustices. Governments need to be reminded that even after 15 years of the existence of the CBD hardly anywhere in the world (is there any evidence of real 'benefit-sharing' having taken place with local communities or the biodiversity crisis been addressed. The efforts and commitments required from States to ensuring this is tremendous and therefore, the BD Act has much to change about itself before it is pronounced as a 'success' .

Some have considered seeking a moratorium on granting further access to resources and to the documentation of knowledge and resources, till the issues at hand are resolved, and the conservation-livelihood imperatives restored as the legislation's priorities. Communities and NGOs elsewhere are breathing life into other and more ethical as also practical strategies and programmes, such as protection of ecosystems, seeds or 'seed-saving', and other forms of community conservation, which aim to shift the locus of power and control to the people. It is these and other effective and equitable measures to protect biodiversity and biodiversity-based livelihoods, that must become the focus of natural resource legislation and policy, and not the generation of wealth of corporations and elites.

Abbreviations used

ARIS	Agricultural Research Information System
CTKDL	Comprehensive Traditional Knowledge Digital Library
NIF	National Innovation Foundation
ABS	Access and Benefit Sharing
BD	Biological Diversity
BDA	Biological Diversity Act
BHS	Biodiversity Heritage Site
BMC	Biodiversity Management Committee
CBD	Convention on Biological Diversity
CBR	Community Biodiversity Register
CIC	Central Information Commission
CSIR	Council for Scientific and Industrial Research
EC	Expert Committee (of the NBA)
EIA	Environmental Impact Assessment
ENVIS	Environmental Information System
FRLHT	Foundation for Revitalisation of Local Health Traditions
GBIF	Global Biodiversity Information Facility
GoI	Government of India
IBIN	Indian Bioresource Information System
IBIS	Indian Biodiversity Information System
ICITP	Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore
IIRS	Indian Institute of Remote Sensing
IPR	Intellectual Property Right
MAHYCO	Maharashtra Hybrid Seed Company
MoEF	Ministry of Environment and Forests
MoU	Memorandum of Understanding
MVS	Mobile Veterinary Services
NBA	National Biodiversity Authority
NBRI	National Botanical Research Institute
NCL	National Chemical Laboratory
NREGS	National Rural Employment Guarantee Scheme
NRM	Natural Resource Management
NRSA	National Remote Sensing Agency
NTC	Normally Traded Commodities
OSRP	Off-site Source Recovery Project
PBR	People's Biodiversity Register
PeBINFO	People's Biodiversity Register Information System
PIC	Prior Informed Consent
PRA	Participatory Rural Appraisal
RDBMS	Relational Database Management System

RTI	Right to Information
SBB	State Biodiversity Board
SC/ST	Scheduled Tribe/Scheduled Caste
TK	Traditional Knowledge
TPCG	Technical and Policy Core Group
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNU-IAS	United Nations University Institute of Advanced Studies
WTI	Wildlife Trust of India

Kalpavriksh is a small, 30-year old NGO that works on environmental awareness, campaigns, litigation, research, and other areas. Kalpavriksh believes that a country can develop meaningfully only when ecological sustainability and social equity are guaranteed, and when a sense of respect for nature and fellow humans is achieved. To this end its activities are directed to ensuring conservation of biological diversity , livelihood security, empowerment of local communities (especially through community-based conservation and management of natural resources), challenging the current destructive path of development, and reviving a sense of oneness with nature.

GRAIN is an international non-governmental organisation (NGO) which promotes the sustainable management and use of agricultural biodiversity based on people' s control over genetic resources and local knowledge. GRAIN was established at the beginning of the 1990s to tackle one of the most pervasive threats to world food security: genetic erosion. The loss of biodiversity destroys options for the future and robs people of a key resource for survival. GRAIN believes that the conservation and use of biodiversity is too important to leave to scientists, governments and industry alone. Efforts to manage biodiversity must start with its true custodians - the farmers and indigenous peoples who have nurtured our crops and other useful plants, livestock and fisheries for millennia. Through networking, communications and information activities, GRAIN works with partners the world over to mobilise popular concern and constructive action to safeguard the world's agricultural biodiversity and support the communities that sustain it.