

Implementation of Biological Diversity Act in India :

An Overview with Case Studies

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Cover photo of *Trombidium grandissimum*:
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Editor's Note

The study on the actual implementation of the Biological Diversity Act was commissioned by RCDC in 2010. As the report submitted by the 1st consultant did not focus on state-level field verifications, a second phase of the study was then assigned to another consultant so as to analyse & document the actual status in four different states. Hence, the present compilation has two parts: one reflecting the overall policy scenario and the other reflecting on the actual status in the field-level implementation. However, the study could not contain extensive field information owing to a number of limitations including constraints of time.

In the meantime, RCDC has responded very specifically & logically to the draft State Biodiversity Rules of Odisha, suggesting for necessary modifications in it. Further, a regional level consultation followed by a state-level one has been organized at Bhubaneswar so as to pursue the matter with different stakeholders with an objective of facilitating necessary dynamics at various levels. We hope that our continuous efforts to ensure an effective enabling mechanism for biodiversity conservation will definitely have some positive impact at the policy- as well as ground level.

Both the consultants, particularly the first one, have borrowed a lot of information from secondary sources mostly from internet. Unfortunately their reports often lacked adequate mention to the sources. RCDC however acknowledges all these sources, mentioned or not, with due honor to the original works.

The 2nd consultant received valuable information also from the State Biodiversity Board functionaries/members in Andhra Pradesh, Madhya Pradesh, Jharkhand and Odisha. RCDC sincerely thanks all of them.

The study data belongs mostly to 2010 though certain updates have been mentioned wherever possible/feasible. Before e-publication of this report the undersigned contacted some of the State Biodiversity Board members(excluding Andhra Pradesh) for some latest updates/clarifications but it was found that even they were not aware of the developments and awaited the next meeting of the Board for updates. Still, and thankfully few updates could be possible courtesy the Member Secretaries of the SBB of Jharkhand and Odisha. Our conclusion from this study would definitely suggest that although the Biological Diversity Act was promulgated in 2002 its actual implementation in many states is quite poor, and there is a lack of sincerity both at the levels of politicians and bureaucrats to remain committed to the spirit and mandate of this Act. RCDC therefore calls for a civil society intervention in the matter so that the implementation status may improve practically and satisfactorily. We also solicit suggestions/feedback on this report.

Bikash Rath

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ANNEXURE

Abbreviations used

AP	:	Andhra Pradesh
APSBB	:	Andhra Pradesh State Biodiversity Board
BD	:	Biological diversity
BDA	:	Biological Diversity Act
EDC	:	Eco-development Committee
FES	:	Foundation for Ecological Security
JFM	:	Joint Forest Management
MoEF	:	Ministry of Environment and Forests
NGO	:	Non Government Organisation
OFD	:	Orissa Forest Department
OSBB	:	Orissa State Biodiversity Board
RCDC	:	Regional Centre for Development Cooperation
RPRC	:	Regional Plant Research Centre
SBB	:	State Biodiversity Board
UNDP	:	United Nations Development Programme
UT	:	Union Territory

Part-I

Implementation of

Bio-diversity Act in India: An Overview

1.1 *Background*

In simple terms, the diversity among various life forms within the Biosphere refers to biodiversity. Since the life form ranges from microbes to mega life forms, the biodiversity thus has larger connotation and hence varies from simple genetic level to higher complexities of various species associations and their interrelationships. Biodiversity is the foundation of life on Earth. It is crucial for the functioning of ecosystems which provide us with products and services without which we cannot live. Oxygen, food, fresh water, fertile soil, medicines, shelter, protection from storms and floods, stable climate and recreation - all have their source in nature and healthy ecosystems. But biodiversity gives us much more than this. We depend on it for our security and health; it strongly affects our social relations and gives us freedom and choice.

Biodiversity is extremely complex, dynamic and varied like no other feature of the Earth. Its innumerable plants, animals and microbes physically and chemically unite the atmosphere (the mixture of gases around the Earth), geosphere (the solid part of the Earth), and hydrosphere (the Earth's water, ice and water vapour) into one environmental system which makes it possible for millions of species, including people, to exist.

Biodiversity can broadly be divided at three levels i.e. genetic diversity, species diversity and ecosystem/habitat diversity. Biodiversity management at these three aforesaid levels has different implications. The biodiversity management at habitat level is holistic and more cost effective. At the same time, no other feature of the Earth has been so dramatically influenced by man's activities. By changing biodiversity, we strongly affect human well-being and the well-being of every other living creature.

1.2 *Existence and quantification of biodiversity*

The very existence of biodiversity is everywhere in the biosphere. It occurs both on land and in water, from high altitudes to deep ocean trenches and it includes all organisms, from microscopic bacteria to more complex plants. Although many tools and data sources have been developed, biodiversity remains difficult to measure precisely. According to the Millenium Ecosystem Assessment, the total number of species on Earth ranges from five to 30 million, and only 1.7–2 million species have been formally identified. India is one of the 12-mega diverse countries of the world. With only 2.5% of the land area, India already accounts for 7.8% of the global recorded species.

There are many measures of biodiversity. Species richness (the number of species in a given area) represents a single but important metric that is valuable as the common currency of the diversity of life—but to fully capture biodiversity, it must be integrated with other metrics.

IUCN has access to different kinds of information on species. The Red List of Threatened Species provides global assessments of the conservation status of species.

1.3 Valuation of biodiversity

Needless to say, biodiversity is invaluable. Overall significance of this natural asset can't be and should not be reduced to commodification. However, in practice decisions at various levels have been seen to have ignored this aspect, and have given more emphasis to commodified or otherwise valued things than this invaluable asset though that doesn't mean that a comparative valuation of the same is totally impossible. Production potential of timber and NTFP can be assessed; carbon credits of the forest ecosystem can also be assessed. Even other ecological services can be assessed. If the full economic value of these services was taken into account in decision-making, the degradation of ecosystem services could be significantly slowed down or even reversed. In the name of developmental activities, industrialization, mining, and other such projects have been allowed to cause massive loss to ecosystem and biodiversity, thereby showing how poorly the economic value of biodiversity and ecosystems is recognized and inadequately reflected in public and private decisions. In order to build support for and guide efforts to reduce ecosystem degradation and halt biodiversity loss, more information and wider understanding is needed of the local and global benefits of ecosystem services, and of the full costs of restoration and conservation.

1.4 Need of biodiversity

It is very well recognized by various civilizations during the early centuries and later by scientific means, that the need of biodiversity cannot be ignored in development paradigms. This realization has been attached to various socio-cultural issues of these human civilizations. It is estimated that more than 70,000 plant species are used in traditional and modern medicine. Our food and energy security strongly depends on biodiversity and so does our vulnerability to natural hazards such as fires and flooding. Biodiversity loss has negative effects on our health, material wealth and it largely limits our freedom of choice. As all cultures gain inspiration from or attach spiritual and religious values to ecosystems or their components – e.g. landscapes, trees, hills, rivers or particular species - biodiversity loss also strongly influences our social relations. The benefits that we gain from biodiversity go far beyond the mere provision of raw materials. Biodiversity is essential to global food security and nutrition and also serves as a safety-net to poor households during times of crisis. Increased diversity of genes within species e.g. as represented by livestock breeds or strains of plants, reduces risk from diseases and increases potential to adapt to changing climate. The value of global ecosystem services is estimated at \$16-\$64 trillion!

Biodiversity gets affected by every developmental decision we take. Biodiversity is crucial to human wellbeing, sustainable development and poverty reduction. In the long term, the value of services lost may greatly exceed the short-term economic benefits that are gained from transforming ecosystems. When we modify an

ecosystem to improve a service it provides, this generally also results in changes to other ecosystem services.

1.5 Biodiversity in danger?

The figures published by International Union for Conservation of Nature (IUCN) suggest that 17,291 species out of 47,677 assessed so far are threatened with extinction; of the world's 5,490 mammalian species, 79 are extinct or extinct in the wild, with 188 critically endangered, 449 endangered and 505 vulnerable; and 1,895 of the planet's 6,285 amphibian species are in danger of extinction, making them the most threatened group of species known to date. The escalating extinction crisis shows that the diversity of nature cannot support the current pressure that humanity is placing on the planet.

Every day biodiversity is being lost at up to 1,000 times the natural rate. Not only the extinction of individual species, but also habitat destruction, land conversion for agriculture and development, climate change, pollution and the spread of invasive species are only some of the threats responsible for today's crisis.

1.6 Threats assessment to biodiversity

The threats to biodiversity could be specified in terms of natural and anthropogenic activities. Out of all numerous threats, human activity is responsible for most of them. As per the data published by IUCN, following are the reasons for the biodiversity loss:

1.6.1 Habitat loss and degradation:

As specified in the previous section, habitat based conservation approach is the best method to conserve biodiversity. Habitat loss affects 86% of all threatened birds, 86% of the threatened mammals assessed, and 88% of the threatened amphibians.

1.6.2 Invasion of alien species:

Introduction and invasion of exotic plant and animal species can severely change the species composition of a particular ecosystem. The shrub *Lantana camera* can suitably be taken as one such example. It is noticed and several research works have already been made by several researchers that this species dominates and changes the soil quality that does not allow other native species to grow and spread.

Under animal category, some of the other most threatening invasive species include cats and rats, green crabs, zebra mussels, the African tulip tree and the brown tree snake. Introductions of alien species can happen deliberately or unintentionally, for example, by organisms "hitch-hiking" in containers, ships, cars or soil.

1.6.3 Over-exploitation of natural resources.

The human population expansion has added several pressures on the resources towards their own survival and development. The per capita area of the natural ecosystems is gradually sinking and thereby there is overexploitation of the resources and biodiversity.

1.6.4 *Pollution and diseases:*

The upsurge of sudden and extensive disease to a particular species of the ecosystem can completely remove the species. In addition, excessive nutrient can allow a particular species to dominate above others out competing them altogether. For example, excessive fertilizer use leads to excessive levels of nutrients in soil and water. Nutrient rich aquatic ecosystems can initiate the eutrophication which allows few algal species to grow faster above the aquatic ecosystems which reduces the populations of benthic population of such aquatic systems.

1.6.5 *Human-induced climate change.*

Biodiversity and climate change are very closely related issues. Biodiversity is strongly affected by climate change, so we need to make additional efforts to minimize the negative influence of other factors, such as over-exploitation, habitat loss and fragmentation, pollution, and the spread of invasive alien species. This way we can ensure that ecosystems are less vulnerable and more resilient to the increasing threat posed by climate change.

But climate change can also largely benefit from conserved biodiversity and particularly healthy ecosystems when these are placed at the very centre of the efforts to tackle climate change.

Through absorbing and storing carbon in a range of terrestrial and marine ecosystems, such as forests, peatlands and other wetlands, biodiversity contributes to climate change mitigation - by storing carbon dioxide.

Biodiversity also helps people to adapt to climate change through providing the ecosystem services which reduce their vulnerability and enhance their adaptive capacity to change. This includes the coastal protection provided by coastal mangrove forests from flooding and coastal erosion caused by sea-level rise and more powerful storms.

As per the studies conducted by IUCN, the abundance of species has declined by 40% between 1970 and 2000. Species present in rivers, lakes and marshlands have declined by 50%. In the North Atlantic, fish have declined by 66% in the last 50 years. Since 2000, 6 million hectares of primary forest have been lost each year. In the Caribbean region, hard coral cover has declined from 50% to 10% in the last three decades. 35% of mangroves have been lost in just 20 years. More than one in six mangrove species worldwide are in danger of extinction due to coastal development and other factors, including climate change, logging and agriculture, according to the first-ever global assessment on the conservation status of mangroves for the IUCN Red List of Threatened Species.

1.7 *Biodiversity of India*

1.7.1 *Species diversity*

Indian subcontinent is one of the richest biodiversity habitats in the world. India contains a great wealth of biological diversity in its forests, its wetlands and in its

marine areas. This richness is shown in absolute numbers of species and the proportion they represent of the world total (see **Table 1**).

Table 1. Comparison between the number of species in India and the world.

Group	Number of species in India (SI)	Number of species in the world (SW)	SI/SW (%)
Mammals	350	4,629	7.6
Birds	1224	9,702	12.6
Reptiles	408	6,550	6.2
Amphibians	1 97	4,522	4.4
Fishes	2546	21,730	11.7
Flowering Plants	15,000	250,000	6.0

Source: Quoted in Biodiversity Profile of India, <http://ces.iisc.ernet.in/hpg/cesmg/indiabio.html>

Endemic species

The endemic species are the species which are found in a particular habitat and never been noticed in other habitats of India. India has many endemic plant and vertebrate species. Among plants, species endemism is estimated at 33% with about 140 endemic genera but no endemic families (Botanical Survey of India, 1983). Areas rich in endemism are north-east India, the Western Ghats and the north-western and eastern Himalayas. A small pocket of local endemism also occurs in the Eastern Ghats (MacKinnon & MacKinnon, 1986). The Gangetic plains are generally poor in endemics, while the Andaman and Nicobar Islands contribute at least 220 species to the endemic flora of India (Botanical Survey of India, 1983).

The World Conservation Monitoring Centre's (WCMC) Threatened Plants Unit (TPU) is in the preliminary stages of cataloguing the world's centres of plant diversity. Approximately 150 botanical sites worldwide are so far recognised as important for conservation action, but others are constantly being identified (IUCN, 1987). Five locations have so far been issued for India: the Agastyamalai Hills, Silent Valley and New Amarambalam Reserve and Periyar National Park (all in the Western Ghats), and the Eastern and Western Himalaya.

Endemism among mammals and birds is relatively low. Only 44 species of Indian mammal have a range that is confined entirely to within Indian territorial limits. Four endemic species of conservation significance occur in the Western Ghats. They are the Lion-tailed macaque *Macaca silenus*, Nilgiri leaf monkey *Trachypithecus johni* (locally better known as Nilgiri langur *Presbytis johnii*), Brown palm civet *Paradoxurus jerdoni* and Nilgiri tahr *Hemitragus hylocrius*.

Only 55 bird species are endemic to India, with distributions concentrated in areas of high rainfall. These areas are mapped by BirdLife International (formerly the International Council for Bird Preservation). They are located mainly in eastern India

along the mountain chains where the monsoon shadow occurs, south-west India (the Western Ghats), and the Nicobar and Andaman Islands (ICBP, 1992).

In contrast, endemism in the Indian reptilian and amphibian fauna is high. There are around 187 endemic reptiles, and 110 endemic amphibian species. Eight amphibian genera are not found outside India. They include, among the caecilians, *Indotyphlus*, *Gegeneophis* and *Uraeotyphlus*; and among the anurans, the toad *Bufoides*, the microhylid *Melanobatrachus*, and the frogs *Ranixalus*, *Nannobatrachus* and *Nyctibatrachus*. Perhaps most notable among the endemic amphibian genera is the monotypic *Melanobatrachus* which has a single species known only from a few specimens collected in the Anaimalai Hills in the 1870s (Groombridge, 1983). It is possibly most closely related to two relict genera found in the mountains of eastern Tanzania.

Threatened species

India contains 172 species of animal considered globally threatened by IUCN, or 2.9% of the world's total number of threatened species (Groombridge, 1993). These include 53 species of mammal, 69 birds, 23 reptiles and 3 amphibians. India contains globally important populations of some of Asia's rarest animals, such as the Bengal Fox, Asiatic Cheetah, Marbled Cat, Asiatic Lion, Indian Elephant, Asiatic Wild Ass, Indian Rhinoceros, Markhor, Gaur, Wild Asiatic Water Buffalo, etc.

Indian sub-continent has been facing the issue of several Indian plants forced to extinction or vulnerable. The detailed status of Indian plants as per WCMC is mentioned in Table – 2 for further references.

Table 2. Summary of Plant Conservation Status Information at WCMC.

IUCN Threat category	Number of species
Extinct	19
Extinct/Endangered	43
Endangered	149
Endangered/Vulnerable	2
Vulnerable	108
Rare	256
Indeterminate	719
Insufficiently Known	9
No information	1441
Not threatened	374
TOTAL	3120

Source: WCMC Species Unit quoted in Biodiversity Profile of India, <http://ces.iisc.ernet.in/hpg/cesmg/indiabio.html>

1.8 Convention on International Trade in Endangered Species (CITES)

Since India became a party to CITES on 18th October 1976 it has provided data annually to the CITES secretariat on the trade of endangered species through its CITES Management Authority.

1.9 World Heritage Convention

India ratified the *World Heritage Convention* in 1977 and since then five natural sites have been inscribed as areas of 'outstanding universal value'. These sites are:

- Kaziranga National Park
- Keoladeo National Park
- Manas National Park
- Sundarbans National Park
- Nanda Devi National Park

1.10 Convention on Biological Diversity

India signed the *Convention on Biological Diversity* on 5th June 1992, ratified it on 18th February 1994 and brought it into force on 19th May 1994. This convention provides a framework for the sustainable management and conservation of India's natural resources.

1.11 Ramsar (Wetlands) Convention

India has been a contracted party to the *Ramsar Convention* since 1st February 1982. The country has now six sites covering some 1,92,973 hectares of important wetlands. These sites are;

- Bhitarkanika Wild Life Sanctuary
- Keoladeo National Park
- Wular Lake
- Harike Lake
- Loktak Lake
- Sambhar Lake

2.1 *Rationale of the study*

Many policies, Acts, and Rules are usually formulated at international and national level to safeguard the biodiversity with good objectives. The formulation of such guiding principles takes consideration of realised problems and concerns of saving a valuable resource such as biodiversity.

The importance of biodiversity in the world has of late drawn severe attention due to several inherent benefits that has been provided to the biosphere as a whole being present within it. While gauging the entire spectrum of biodiversity, it is realized that certain species within the ecosystem play “key role” towards management of the entire ecosystem and thus termed as the “Key stone species”. Their conservation is highly essential in order to manage the entire ecosystem in totality under question. The world so far has been predominantly engaged in using the traditional indigenous knowledge followed by scientific knowledge to conserve/preserve the biodiversity. Diverse activities and actions have been taken by several stakeholders at local, state, national and international level to conserve/ protect the valuable resource such as biodiversity to draw the benefits accrued in it for the society. It has been noticed that overexploitation of certain species has been made due to commercial interests by selected groups thereby restricting the benefits to the actual long term users. The debarring of actual users and people who otherwise were the long protectors of the biodiversity resource being gradually pushed away from their inherent rights over biodiversity led to the requirement of equitable sharing of benefits from biodiversity which was felt globally.

At the international level **Convention of Biological Diversity (CBD)** – a legally binding treaty was adopted at Rio De Janeiro in June 1992 to protect the biological diversity of the signing parties at their own levels. India is a Party to the Convention on Biological Diversity (1992). Recognizing the sovereign rights of States to use their own biological resources, the Convention expects the parties to facilitate access to genetic resources by other Parties subject to national legislation and on mutually agreed upon terms (Article 3 and 15 of CBD). Article 8(j) of the Convention on Biological Diversity recognizes contributions of local and indigenous communities to the conservation and sustainable utilization of biological resources through traditional knowledge, practices and innovations and provides for equitable sharing of benefits with such people arising from the utilization of their knowledge, practices and innovations. In India major challenge lies in adopting an instrument to realize the objectives of equitable sharing of benefits specified in CBD.

After an extensive and intensive consultation process involving the stakeholders, the Central Government has brought **Biological Diversity Act,2002** in consonance with CBD with the following salient features:-

- 1 To regulate access to biological resources of the country with the purpose of securing equitable share in benefits arising out of the use of biological resources; and associated knowledge relating to biological resources;
- 2 To conserve and sustainably use biological diversity;
- 3 To respect and protect knowledge of local communities related to biodiversity;
- 4 To secure sharing of benefits with local people as conservers of biological resources and holders of knowledge and information relating to the use of biological resources;
- 5 Conservation and development of areas of importance from the standpoint of biological diversity by declaring them as biological diversity heritage sites;
- 6 Protection and rehabilitation of threatened species;
- 7 Involvement of institutions of state governments in the broad scheme of the implementation of the Biological Diversity Act through constitution of committees.

Though the idea behind formulation of Biological Diversity Act seemed very noble, it is often observed that partial experiences are taken into consideration while formulation of such laws. This is thus inadequate when implemented in the field. A critical analysis of this Biodiversity Act 2002 should be made therefore. Actual benefits derived in the field needs to be gauged and hence the actual realisation needs to be documented while considering the benefits of the Act.

2.2 Objectives:

Specific objectives – why this study?

The study of Biological Diversity Act 2002 was planned to be undertaken to showcase the success and failure of this important Act in reality. Specific objectives of the study are as follows:

1. To critically analyze the policy in the context of Local Self Government, State and Nation's perspective.
2. To judge the efficacy of the policy in practice in reality at government and community level.
3. To assess any lacunae in the policy towards its management and implication perspective.
4. To document success case studies, if any and to show case these case studies as the models.

5. To determine the intricacies of other Indian Acts and scopes towards holistic use of all relevant laws for betterment of the target groups on biodiversity.
6. To explore the scope towards bureaucratic role for further scope of improvement.
7. To assess the role of Biological Diversity Act 2002 and Rules towards prevention of bio-piracy.
8. To explore the extent of traditional knowledge safeguarded through implementation of Biological Diversity Act 2002 and benefits the community has gained due to implementation of this Act through the benefit sharing mechanisms.
9. To assess the scopes of preservation of threatened species and conservation of heritage sites under this Act.
10. To determine the scope of community involvement in the Act.

2. 3 Methodology

The methodology of the study was made in following ways:

Desk work

The desk work primarily included the collection of secondary literatures/reference materials in both hard copies and soft copies. The hard copies included the books, reports, leaflets etc. generated from various levels. The soft copies were also collected from various NGOs, universities, institutes, etc. Primarily the soft copies were downloaded by browsing the internet. The literatures collected thus were referred critically. The issues were understood from various stakeholders' point of view and scopes were then judged and specified.

Field visit and discussions with relevant stakeholders

A spectrum of stakeholders was created who were the beneficiaries of the Act in the country. The stakeholders were visited and personally contacted. Discussions with the relevant state level and national level Departments such as Department of Science and Technology, Ministry of Environment and Forests, Panchayatiraj Department, etc were held. Various village level institutions such as forest protecting committees, village committees were approached and detailed discussions were made through focused group discussions, RRAs and PRAs.

Report preparation

The data/information collected was synthesized. The data generated through such analysis was then further substantiated through literatures, field visit information, interviews, policy information and a draft report has been prepared.

2.4 Sources of information collection

Following sources were referred:

- Secondary literatures – hard copies.
- Soft copies downloaded from the internet and collected from various institutions/organisations/departments.
- Field visit information - specific case studies.
- Meeting/reviews with different stakeholders.

2.5 Major areas of data enquiry

- Convention of Biological Diversity (CBD) documents.
- Biological Diversity Act – Indian and Odishan context.
- Indian Forest Act – 1927
- Indian Wildlife Protection Act – 1972
- Forest Conservation Act – 1980
- Acts of commercial interest using the biological diversity of the country.
- Implications of policy implementation – case studies
- Success and failures of policy implementation – specific to community centric approaches.
- Scopes of community intervention.

6.0 Tools of data collection

- Secondary literature review.
- Field visits – primary information collection & case study preparation.
- Interviews with relevant stakeholders.

Many policies, Acts, and Rules have been formulated by the Government of India for good reasons to safeguard the forest, wildlife and habitats that *per se* cover the default biodiversity by direct and indirect means. Such government legislations prior to Biological Diversity Act 2002 are as follows:

1. Indian Forest Act, 1927
2. Indian Wildlife Protection Act, 1972
3. Forest Conservation Act, 1980

3.1 Indian Forest Act - 1927

The Indian Forest Act of 1927 is a colonial and timber-centric approach of forest management while gauging at forest based biodiversity. The Act defines the constitution of reserve forests, village forests and protected forests to be managed by government and village community as applicable to preserve the forest resources including trees, timber, charcoal, catechu, wood-oil, resin, natural varnish, bark, lac, mahua flowers, mahua seeds, and myrabolans, and the fallen parts such as trees and leaves, flowers and fruits, and all other parts or produce, grass, creepers, reeds and moss, and all parts or produce of such plants, wild animals and skins, tusks, horns, bones, silk, cocoons, honey and wax, and all other parts or produce of animals, and peat, surface soil, rock and minerals.

The protection of biodiversity is direct reservation of forest patches where the entry of common person, without authorization of the forest officer, is an offence. Declaration of a forest patch into a reserve forest is made by a designated forest settlement officer. On the other hand, in Protected Forests, more concessions are allowed to tenants for removing forest produce whereas in Village Forest the local villagers have a greater say.

3.2 Wildlife (Protection) Act, 1972

Whereas the Indian Forest Act focuses on the overall protection & management of forests, the Wildlife (Protection) Act of 1972 is an intensive Act to conserve the biodiversity with specific focus of wildlife (both animals and plants) with *in situ* and *ex situ* measures. The Act is aimed at preservation of wildlife with ultimate minimisation of negative impacts on wild life and it has very stringent actions against the offenders. It strongly recommends for a wildlife advisory board to look into the proper management of wildlife and their protection and propagation.

In situ conservation scopes

There are strict provisions to prevent hunting or otherwise causing harm or even capturing/trapping wild animals (including birds, etc.). Exceptions are allowed in case the wildlife threatens human life, or it is required for research or other such permissible purposes to capture the animal. In such cases the Chief Wildlife Warden is the local authority to give the permission.

More or less similar protection mechanism exists for wild flora also. The proposed Wildlife Protection Amendment Bill 2010 contains more elaborate instructions to protect the genepool, and conserve the wild flora & fauna. It even restricts extraction/use of peacock feathers.

Establishment of Protected areas

Wildlife Protection Amendment Act, 2002 provides for establishment of four kinds of protected areas: sanctuaries, National Parks, community reserves, and conservation reserves. The last two categories were introduced so as to involve local communities in wildlife protection or recognize any such effort by them. Rights of people are restricted more in sanctuaries and national parks than in other two, and national parks essentially require discontinuation of all human habitations.

Besides, there are categories like Biosphere Reserve, Tiger Reserve, and Elephant Reserve than are not exactly a category of protected areas themselves but practically these coincide more or less with the protected areas with some deviations.

Ex situ conservation scopes: Zoos and Botanical Gardens

Zoological parks and botanical gardens are established outside the natural habitats with multiple objectives one of which is to propagate the wild species for conservation in captivity. The vulture conservation programme and the captive breeding of white tiger are among the notable examples.

3.3 Forest Conservation Act, 1980 – conservation of biodiversity through habitat protection

The Forest Conservation Act, 1980 is the Act to provide for the conservation of forests and it details out the rules and regulations for conversion of forest lands for non-forestry activities. It came into force on the 25th day of October, 1980.

It restricts the state government in dereserving any reserve forests used for any non-forest purpose without prior permission of the central government. The Act is supervised by an advisory committee constituted at the centre.

The Forest Conservation Act is applicable to all forestlands including reserved forest, protected forest or any area recorded as forest in the government records. However, it is not applicable to the plantations raised on private lands, except notified private forests. Felling of trees in these private plantations are governed by various Acts and Rules. Felling of trees in notified private forests will be as per the working plan/management plan duly approved by Government of India. Harvesting of

fodder grasses, legumes etc which grow naturally in forest areas, without removal of the tree growth, will not require prior approval of the Central Government. However, lease of such areas to any organization or individual would necessarily require permission under the Act.

Development projects such as transmission lines, hydro-electric projects, seismic surveys, exploration for oil drilling, mining etc. does not affect the provisions of the Act as long as these surveys do not involve any clearing of forest or cutting of trees, and operations are restricted to clearing of bushes and lopping of tree branches for specified purposes. However, prior permission of the Central Government is mandatory if the investigation and surveys involve clearing of forest area or felling of trees. Any construction work even if without involving the felling of trees also needs the prior permission of the Central Government.

Prospecting of any minerals within a forest area also requires the permission under Forest (Conservation) Act 1980. The Act strictly prohibits the use of forest lands for non forest activities such as cultivation of tea, coffee, spices, rubber, palm and fruit and oil bearing trees. However, the species indigenous in the area in question and planting according to afforestation programme is considered as forestry activities. Cultivation of Tusser as a means of tribal livelihood is considered as forestry activity whereas plantation of mulberry for silkworm rearing is a non forestry activity and hence prevented. A 2004 guideline promotes tussar cultivation in forests on the condition that monoculture of trees and exotic species of silkworm are to be avoided.

Similarly for diversion of forest land for regularization of encroachments to be undertaken compensatory afforestation should be kept already at Division level as per the plans at division level. In addition, a time plan for eviction of ineligible encroachers is also made.

Compensatory afforestation is one of the most important conditions stipulated by the Central Government while approving proposals for de-reservation or diversion of forest land for non-forest uses. Compensatory afforestation has to be done over equivalent area of non-forest land. As far as possible, the non-forest land for compensatory afforestation should be identified contiguous to or in the proximity of Reserved Forest or Protected Forest to enable the Forest Department to effectively manage the newly planted area. In the event that non-forest land of compensatory afforestation is not available in the same district, non-forest land for compensatory afforestation may be identified anywhere else in the State/UT as near as possible to the site of diversion, so as to minimise adverse impact on the micro-ecology of the area. Where non-forest lands are not available or non-forest land is available in less extent to the forest area being diverted, compensatory afforestation may be carried out over degraded forest twice in extent to the area being diverted or to the difference between forest land being diverted and available non-forest land, as the case may be.

The Act has the provision for “No compensatory afforestation” in specific cases.

The Biological Diversity Act was adopted following India's ratification of the Convention on Biological Diversity at international level. The Act has, however, also been informed by developments in other contexts such as the adoption of the TRIPS agreement. In fact, the Act does not provide a comprehensive regime for the conservation and sustainable use of biological resources but focuses on the question of access to resources and related issues. Its response to the current challenges is to rely on the time-tested principle of permanent sovereignty over natural resources.

The salient features of this Act may be broadly specified as follows:

1. Approval of Indian Government is needed for transfer of Indian genetic material outside the country and for anyone claiming an Intellectual Property Right (IPR), such as a patent, over biodiversity or related knowledge.
2. Other than local communities all Indian nationals were regulated for collection and use of biodiversity.
3. Measures for sharing of benefits from the use of biodiversity, including transfer of technology, monetary returns, joint research & development, joint IPR ownership, etc.;
4. Measures to conserve and sustainably use biological resources, including habitat and species protection, environmental impact assessments (EIAs) of projects, integration of biodiversity into the plans, programmes, and policies of various departments/sectors;
5. Provisions for local communities to have a say in the use of their resources and knowledge, and to charge fees for this;
6. Protection of indigenous or traditional knowledge, through appropriate laws or other measures such as registration of such knowledge;
7. Regulation of the use of genetically modified organisms;
8. Setting up of National, State, and Local Biodiversity Funds, to be used to support conservation and benefit-sharing;
9. Setting up of Biodiversity Management Committees (BMC) at local village level, State Biodiversity Boards (SBB) at state level, and a National Biodiversity Authority (NBA).

It provides for putting stringent limits on access to biological resources or related knowledge for all foreigners. Under the Act, all foreigners are treated in the same way, regardless of whether they are from developed countries or from least developed countries. It differentiates between domestic companies and the MNCs, although the provisions of TRIPS demand that MNCs be treated at par with domestic companies. The Act does not seem to have an overall riding effect on the existing laws on wildlife and forests, and it is not clear which law will prevail in case of a dispute. Furthermore, the strong provisions to regulate access by foreigners are

not matched at the national level where local knowledge holders are not given strong control over their resources and knowledge.

More specifically, the Act's aim is to provide for the "conservation of biological diversity, sustainable use of its components and for the equitable sharing of the benefits arising out of the use of biological resources." It institutes a National Biodiversity Authority at the national level and State Biodiversity Authorities at the state level, as nodal bodies to oversee the conservation, use and sharing of the benefits from the use of biological resources. It makes prior intimation of the intention to obtain biological resources for commercial utilization or bio-survey or bio-utilization, to these boards mandatory. It further requires that all inventors obtain the consent of the National Biodiversity Authority before applying for intellectual property rights where the invention is based on any biological resource obtained from India, and grants the authority the power to "impose benefit sharing fee or royalty or both or impose conditions including the sharing of financial benefits arising out of the commercial utilization of such rights. Given the lack of extraterritorial jurisdiction of the National Biodiversity Authority and its inability to monitor applications overseas though, the efficacy of such a provision will remain in doubt.

Overall, one of the striking features of the regime is that it completely obliterates common property arrangements whose importance and extent in the context of the management of biological resources is still immense. The Act centralizes property rights either in the hands of the state through sovereign appropriation or in the hands of private inventors through monopoly intellectual property rights. It does not, however, provide a framework for the rights of all other holders of biological resources and related knowledge. The consequence is that resources and knowledge that are not allocated to private entities through intellectual property rights or arrogated by the state to itself, will be deemed freely available.

The policy in theory and practice has different implications and sectoral analysis is given below:

4.1 Policy in the context of Local Self Government, State and Nation's perspective

4.1.1 National Biodiversity Authority

In accordance with the Section 8 of the Biological Diversity Act a National Biodiversity Authority (NBA) was established in the year 2003 which is responsible for its implementation. Its headquarters are at Chennai. The NBA also performs functions such as laying down the procedures and guidelines to govern the activities such as access and benefit sharing and Intellectual Property Rights, in accordance with the Article 8 of the Convention on Biological Diversity (CBD). The authority also coordinates the activities of the State Biodiversity Boards (SBB) and Biodiversity Management Committees (BMC) by providing them with technical assistance and guidance. NBA advises the government on matters relating to the conservation of

biodiversity, sustainable use of its components and equitable sharing of benefits arising out of the utilization of biological resources, to select and notify the areas of biodiversity importance as biodiversity heritage sites under this Act and perform other functions as may be necessary to carry out the provisions of the Act. The NBA on behalf of the Government of India takes measures to protect the biological diversity of the country as well as oppose the grant of intellectual property rights to any foreign country on any biological resource obtained from India or knowledge associated with such resources. The NBA is chaired by an eminent person having adequate knowledge and expertise in the conservation and sustainable use of biological diversity and in matters relating to equitable sharing of benefits appointed by Government of India. It consists of 10 senior officials from government departments and five additional specialists as members. The Authority meets once every three months to oversee the work of the NBA, SBBs and BMCs to approve applications for access to India's biological resources.

However, it has been criticised that the NBA has not been able to perform satisfactorily. One of the factors responsible for this seems to be the government apathy. For instance, recently the post of Chairperson of NBA was held for sometime only on an adhoc basis as an additional responsibility of a senior officer in the Ministry of Environment & Forest, and this seems to have affected some of the functioning of the Authority. Further, a critical review by the central government agency Comptroller & Auditor General of India has also raised questions about the efficient working of the Authority.

4.1.2 State Biodiversity Boards

The Central Government has been encouraging the States to constitute State Biodiversity Boards (SBB). The Government provides initial financial support of Rs. 10 lakhs through National Biodiversity Act (NBA). States that have so far set up the State Biodiversity Boards include Andhra Pradesh, Arunachal Pradesh, Chhattisharh, Goa, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Mainpur, Mizoram, Nagaland, Odisha, Punjab, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal.

SBB is a body corporate set up by the State Government in accordance with the provisions of Section 22 of the Biological Diversity Act. The SBB consists of a chairperson and not more than five ex-officio members to be appointed by the State Government to represent concerned Departments of the States, and not more than five expert members on the subject.

The main functions of the State Biodiversity Boards are to advise the State Governments on matters relating to biodiversity, and to regulate by granting approval for commercial utilization or bio-survey and bio-utilisation of any biological resource by Indians.

Structure and functions of the State Biodiversity Boards are supposed to be influenced by the concerned state Biodiversity Rules. Civil society response to the draft Biodiversity Rules of Odisha suggested for example that the Chairperson of the Board should not be any official of the government as such additional responsibility to high ranking officials has not been able to give due justice to the responsibility. It is however another matter that the government may or may not accept such suggestions. In fact, it has been found (vide part-II of this report) that in most cases the Boards' performances have been far from satisfactory.

4.1.3 Biodiversity Management Committees

Every local body is required to constitute a Biodiversity Management Committee (BMC) within its area for the purpose of promoting conservation, sustainable use and documentation of biological diversity. The local level BMC comprises maximum seven members to be nominated by the local body of whom not less than one third would be women and not less than 18% belonging to SC/ST.

Some of the recent actions taken up to implement the conservation related provisions of the BD Act, include the following:

- An administrative order for designating certain institutions as Repositories for various categories of biological resources under Section 39 of the Act was issued on 28.8.08, after completing consultations with these institutions.
- A Principal Notification authorizing officers for filing complaints for cognizance of offences under Section 61 of the Act was issued on 17.11.08. An amendment to this notification authorising forest officers for this purpose was issued on 1.8.09.
- In pursuance of Section 38 of the Act relating to Notification of threatened species, the Ministry has prepared a State-wise list of threatened plants and animals, along with guidelines for their rehabilitation in consultation with the Botanical Survey of India and Zoological Survey of India, and sent the same to State Governments for their comments. On receipt of comments from the states, notifications were issued for Himachal Pradesh on 19.3.2009, Uttarakhand, Uttar Pradesh and Kerala on 23.4.2009, and Orissa, Mizoram and Meghalaya on 5th October 2009.
- State Govts have been requested to send their views on the areas of biodiversity importance, which could be notified as Biodiversity Heritage Sites under Section 37. The NBA is in the process of developing draft rules for management of these sites.
- State Govts have been requested to identify any biodiversity rich areas threatened by overuse or neglect as per Section 36 (2), and NBA has been requested to prepare gridlines for management of these areas.

- The process for finalizing the list of normally traded commodities has been finalised and the notification issued on 30.10.2009 under section 40.
- The format for Peoples Biodiversity Registers and guidelines for benefit sharing have been finalized in the NBA and significant progress has been done so far in all notified states.

The irony is that when the local governance institutions themselves are often dominated with political interest & conflicts that affect the activities, and even Standing Committees are not often functional, it is a concern as to what extent the BMCs can be actually functional & effective, particularly when biodiversity management is a more delicate & technical issue. We will see in part-II of this report that even if constituted BMCs have hardly been independently & effectively functional in the states.

4.1.3.1 Peoples' Biodiversity Registers (PBRs)

The Rules promulgated under BD Act include the provision to constitute the BMCs. An important function of BMC is to prepare Peoples' Biodiversity Registers (PBR) in consultation with the local people. The register shall contain comprehensive information on availability and knowledge of local biological resources or any other traditional knowledge associated with them. Preparation of PBRs involves the active support and cooperation of a large number of people who need to share their common as well as specialized knowledge. The documentation of PBR by the BMCs includes information on bio-resources and associated knowledge gathered from individuals (Gadgil 1996). Establishment of comprehensive PBRs would not only help to inventorize and document the local biological and genetic resources, but also to conserve and sustainably use the bio-cultural diversity for rewarding income generation (Gadgil 2006). PBR also ensures active involvement of the local and traditional communities in all decisionmaking processes related to biological diversity and traditional knowledge. BMCs are entrusted with the preparation of PBRs and to assist the SBBs and NBA in matters on ABS related to local biogenetic resources and traditional knowledge. With the globalization and increasing influence of IPRs, there is an urgent need to develop appropriate national and international guidelines for implementing the provisions of ABS and thereby preventing misappropriation of traditional knowledge as well as conserving of bioresources for the future.

In the meantime, the Ministry of Environment with support from United Nations Development Programme (UNDP) has taken some initiatives for effective implementation of the Act.

4.1.4 Role of Gram Sabhas and Panchayats in influencing the Biological Diversity Act, 2002

In April 2004, the Ministry of Environment and Forests, Government of India, notified the Biological Diversity Rules 2004 under the Biodiversity Act (2002). The

April 2004 Rules were criticised by the civil society and experts for undermining both communities dependent on biodiversity, and conservation itself. They alleged that it would dilute the Biodiversity Act (2002) in letter and in spirit, weakening the already inadequate provisions of the Act relating to rural community rights and powers. Facilitated by the civil society, several panchayats, gram sabhas, NGOs, citizens groups and individuals wrote to the Ministry of Environment and Forests, and even the Prime Minister pointing out that the biodiversity rules would have negative impacts on rights, livelihoods and conservation. The process by which the Rules had been finalized was also criticized heavily. The Biodiversity Act and the Rules were essentially in response to international treaty obligations under the Convention on Biological Diversity, and not primarily to protect the interest of the nation in respect of its bioresources and indigenous knowledge systems. About 220 gram sabhas and panchayats across India signed declarations rejecting these Rules and said that they would not implement the same.

Some of the critical problems with the said Rules are:

Faulty process

After the draft Rules were put up for public comment in 2003, several citizens and groups sent in detailed comments to MoEF, but each of these was completely ignored in the finalisation of the Rules. Indeed, the draft Rules finally notified on 15th April 2004 was almost identical to the draft put up for public comment, including repeating scientific mistakes. This was a mockery of "public participation".

Faulty content

There were several problems with the Rules which would only facilitate privatisation of biological resources and knowledge, allow biopiracy, weaken the communities' rights over natural resources and allow vested interests to exploit India's biodiversity.

One of the critical issues was around the powers on constitution of Biodiversity Management Committees (BMCs) to be established by every local body.

The Act supposedly empowers the BMCs to take decisions on conservation and control. However the Rules severely dilute this and state that the main role and function of the BMC is to merely maintain Peoples Biodiversity Register (PBR). The PBR is only part of a larger plan of the government to document and record the diversity of species of flora, fauna, crops, livestock and knowledge of the same. As on date, there is no legal protection available for the knowledge recorded in the PBR. This is problematic when it comes to the question of access to this document and the knowledge it contains. Even though communities create and maintain a database of their resources of knowledge, there is no requirement that their consent would be sought when it comes to accessing the information in the PBRs. Although Rule 17 says local bodies will be consulted before approval for access to bio resources is given, the definition of "consult" is not clear and in many cases it remains a mere formality and not a prior informed consent. Though the Act clearly has spelt out

criteria for rejecting applications for the grant of access to resources and knowledge, it did not list community consent as one of them. Also Rule 7 is clearly biased, as it gives BMC only an advisory role in the of grant approvals.

Therefore in many ways the Rules do not facilitate community decision making and control on their resources and knowledge and hence are not step toward community sovereignty.

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 (as per community perceptions)

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; and we will allow neither misuse by corporates nor appropriation by governments."

4.1.4.1 Biocultural Protocols:

Biocultural protocols are carefullay drafted resolutions that help secure the intellectual propey rights and other traditional rights of the local communities. In India, it has been attempted in a number of cases of which that of the Gunis is relatively more known(see inbox).

South Africa based NGO **Natural Justice**, that works for the legal protection of community rights & environment, has played a pivotal role in framing such

protocols. It suggests communities to develop a Biocultural community protocol “to obtain their credentials as being relevant for the conservation and sustainable use of biological diversity. The idea behind Biocultural Community Protocols is that they are statements by communities about the genetic resources they are stewarding, about their Traditional Knowledge (TK) used to manage these resources, and their role in biodiversity conservation. They are established by means of a facilitated process in which communities learn about their rights over these resources under existing national and international legal frameworks and reflect the importance of traditional knowledge for their livelihoods and their aspirations for the future of this knowledge(FES.undated).

The 'protocol' of the Guni community

Gunis are the traditional healer (vaidya) community in Rajasthan. They have a long & rich tradition of ethnobotanical knowledge which they use in the service of the people. Their knowledge also helps in veterinary health care, and service to humanity & other living beings is sacred to them..

A local non-government organization **Jagaran Jan Vikas Samiti**, in association with the South African organization **Natural Justice** helped them develop & submit a protocol in the form of a self-declaration regarding their distinguished identity, traditional importance in the region, bio-cultural practices, threats & challenges, and perspective. This 'protocol' says that whereas the Biological Diversity Act and the Forest Rights Act provide for access & rights of such traditional communities in the local forests, their actual access is getting restricted or the resources are getting depleted due to unsustainable exploitation. They demanded for legal protection for conservation & continuation of their biocultural heritage including the local medicinal plants, offered their services to that cause, and expressed solidarity with similar communities in the country. The demands they made to the National Biodiversity Authority were as under:

- Recognize their traditional knowledge as it has been recorded by JJVS and to include it in the Peoples' Biodiversity Register (under Rule 22(6) of the Biological Diversity Rules);
- Facilitate the setting up of and provide support to, Biodiversity Management Committees under the local bodies (Panchayats or Municipalities) in Rajasthan in ensuring the conservation and sustainable use of our biodiversity and traditional knowledge.
- Strengthen *in situ* conservation of medicinal plants and include them in the BMC being initiated by the government.
- Advise the Central Government and coordinate the activities of the State Biodiversity Boards to protect their customary rights to access forest areas so as to safeguard their traditional lifestyles that ensure the conservation and sustainable use local biodiversity, associated traditional knowledge and the local ecosystem (under Section 36 of the National Biodiversity Act); and
- Ensure that their prior informed consent (according to customary law) is obtained before any decisions are taken that affect our traditional way of life or access is granted to our medicinal plants and associated traditional knowledge for research or for commercial purposes, and to further assist us to ensure that we receive a fair and equitable share of the benefits arising from the utilization of our breeds and traditional knowledge according to mutually agreed terms (under Section 21 of the national biodiversity Act). (Source: BIO-CULTURAL COMMUNITY PROTOCOL OF GUNIS AND MEDICINAL PLANT CONSERVATION FARMERS OF MEWAR)

4.2 Efficacy of the policy in practice in reality at government and community level and lacunae

The Act condones the introduction of intellectual property rights in the management of biological resources provided for in the TRIPS agreement but does not directly address the subordination of intellectual property rights to the goals of the biodiversity convention as mandated by article 16 of that convention. It attempts to impose checks on the intellectual property rights system in some other respects by authorizing the authority to allocate a monopoly right to more than one actor and in giving to the authority the power to oppose the grant of intellectual property rights outside India. It also seeks to address the question of the rights of holders of local knowledge by setting up a system of benefit-sharing. The benefit-sharing scheme is innovative in that it provides that the authority can decide to grant joint ownership of a monopoly intellectual property right to the inventor and the authority or the actual contributors if they can be identified. The Act also provides other forms of benefit sharing which are progressive in so far as they prioritize non-financial benefits such as transfer of technology, which are more long-lasting than financial compensation.

The Act imposes certain restrictions on request related to access to biological resources and traditional knowledge if the request is on: (i) endangered taxa (ii) endemic and rare taxa (iii) likely adverse effects on the livelihood of the local people (iv) adverse and irrecoverable environmental impact (v) cause genetic erosion or affect ecosystem function (vi) purpose contrary to national interests and other related international agreements to which India is party.

The Act does not, however, give current rights-holders the capacity to defend their rights in the same way that it seeks to equip the country with tools to ward-off biopiracy or even with rights equivalent to that provided patent holders or applicants. In cases where benefit-sharing is allocated in the form of money, the authority can direct the payment to a Biodiversity Fund, and the proceeds from this fund can then either be channeled to the benefit claimers or used generally for biodiversity management activities. The potential claimants do not have automatic access to a share of the benefits. Even where property rights are allocated instead of money, local innovators do not have a right to the allocation but are dependent on the authority's decision in contradistinction with applicants for patent rights who need the authority's approval but cannot be stopped from applying for the right. Further, the Act is conspicuously shy in its treatment of traditional and local knowledge, merely requiring the central government to "endeavor to respect and protect" such knowledge, whereas the question, especially in the Indian context is important enough to not be left to the discretion of the executive and to require a definitive statement of law.

4.3 Scopes towards bureaucratic role for further improvements

The Act, according to Section 21 and Rule 20 of the Biodiversity Rules insists upon including appropriate benefit sharing provisions in the access agreement and

mutually agreed terms related to access and transfer of biological resources or knowledge occurring in or obtained from India for commercial use, bio-survey, bio-utilization or any other monetary purposes. While granting approvals for access, NBA imposes terms and conditions so as to secure equitable sharing of benefits. These benefits, inter alia include:

- a) Grant of joint ownership of intellectual property rights to the NBA, or where benefit claimers are identified, to such benefit claimers;
- b) Transfer of technology;
- c) Location of production, research and development units in such areas which will facilitate better living standards to the benefit claimers;
- d) Association of Indian scientists, benefit claimers and the local people with research and development in biological resources and bio-survey and bio-utilization;
- e) Setting up of venture capital fund for aiding the cause of benefit claimers;
- f) Payment of monetary compensation and other non-monetary benefits to the benefit claimers as the NBA may deem fit.

The BD Act provides for setting up of biodiversity funds at national, state and local levels. Benefit is given directly to individuals or group of individuals only in cases where biological resources or associated knowledge are accessed directly through them. In all other cases, monetary benefits are deposited in the Biodiversity Fund which in turn is used for the conservation and development of biological resources and socio-economic development of areas from where resources have been accessed. The time frame and quantum of benefits to be shared is decided on case-to-case based on mutually agreed terms between the applicant, authority, local bodies, and other relevant stakeholders, including local and indigenous communities. One of the suggested mechanisms for benefit sharing includes direct payment to persons or group of individuals through district administration, if the biological material or knowledge is accessed from specific individuals or organizations. In cases where such individuals or organizations could not be identified, the monetary benefits shall be paid to the National Biodiversity Fund. Five percent of the benefits shall be earmarked for the Authority or State Biodiversity Board towards the administrative service charges.

The access and benefit sharing procedures stipulated under the Biodiversity Act (2002) are in line with the provisions of international laws and policies, particularly Convention on Biological Diversity and the Bonn Guidelines. The entire procedures as described in the Act can contribute substantially to facilitate an international regime of Access and Benefit Sharing on genetic resources and traditional knowledge.

4.4 Safeguarding traditional knowledge, preservation of threatened species, and prevention of bio-piracy

'Biopiracy' practically refers to the ways that usually corporations - almost all from the developed world - claim ownership of, free ride on, or otherwise take unfair advantage of, the genetic resources and traditional knowledge (TK) and technologies of developing countries. Biopirates are those responsible for one or both of the following acts: (i) the theft, misappropriation of, or unfair free-riding on, genetic resources and/or TK through the patent system; and (ii) the unauthorised and uncompensated collection for commercial ends of genetic resources and/or TK.

The legal fight for Neem tree has been made by India and a success was proved. While the neem victory should certainly be regarded as a breakthrough for the legitimate rights of the holders of TK - not only in India but throughout the South - the time, money and effort involved in the whole process of revocation (which in this particular case lasted for ten long years) does stand out as a cause of concern in following the same path in case of other similar cases of biopiracy in future.

Particularly, an effective legal safeguard against biopiracy assumes enormous importance for a country like India, which not only qualifies as one of the twelve megabiodiversity countries of the world, but also has in its possession an equally rich treasure of traditional and indigenous knowledge, both coded as well as informal.

It is not that the existing international treaties are completely negligent about the problem of biopiracy. The legitimate rights of the holders of TK have been clearly acknowledged in the UN Convention on Biological Diversity (CBD), which came into force in 1993 with the following three objectives: the conservation of biological diversity; the sustainable use of its components; and fair and equitable sharing of benefits arising out of the utilization of genetic resources.

The CBD seeks, among other things, to regulate access to genetic resources and associated TK, while at the same time ensuring their sustainable use. While facilitated access to genetic resources and allied TK is of importance to researchers and bio-prospectors, PIC by the providers of the genetic resources and/or TK as well as appropriate arrangements for fair and equitable benefit-sharing are critical issues for the biodiversity rich countries of the world in general and in particular, for the local and indigenous communities who have acted as the custodians of these precious resources for ages.

As mentioned earlier, the Biological Diversity Act provides that any person seeking any kind of intellectual property right (IPR) in or outside of India for any invention based on any biological resource or information on a biological resource obtained from India, is required to obtain prior permission of the NBA, which may determine benefit-sharing fees or royalty for the benefits arising out of the commercial utilization of such rights.

Thus unlike the US law, the Indian law does not discriminate between the home country and foreign country while determining the 'novelty' of an 'invention'. The

aforesaid provision of the US law implies that a patent conferred by the US Patent Office, which involves, say, an act of biopiracy of an Indian TK, can be challenged by India only if some written proof of that knowledge can be produced, for want of which such biopiracy would continue. Although patents are supposed to be granted for new inventions, this denial or non-recognition of non-written 'prior art' elsewhere (in the US law) allows patents to be granted for existing knowledge and use in other countries. It is this glaring loophole of the US law, which opens the door for bio-piracy of the non-written TK of India and other countries of the South by the MNCs.

The earlier-discussed provisions included in the Indian Patents Act in conjunction with the prior informed consent (PIC) and benefit sharing requirements incorporated in the Biological Diversity Act 2002 create sufficient room for combating the biopiracy threats at the national level in India. Nevertheless, the problem remains that existence of a similar protective shield for Indian bioresources and TK cannot be guaranteed under the national patent laws of other countries. Because, notwithstanding the leeways available under TRIPS for such provisions (as have been introduced in Indian Patents Act), the Agreement does not make it obligatory for the member countries to include in their respective patent laws provisions aimed at protecting the bioresources and TK of the country of origin against biopiracy. However, the protection of these precious assets cannot be guaranteed until and unless certain compulsory provisions are included in TRIPS in this regard, which all the Member countries would be obliged to comply with.

Unfortunately, the Indian government doesnot seem to be sincere & focused enough to secure the intellectual property rights of its citizens because the process of applying for and getting a patent is a lengthy one and not quite citizen-friendly. Further, it is probably because of the poor state of Indian stand & mechanism that western biopirates could dare to betray us. However, what is normally ignored in this controversy is that a patent is usually seeked on not exactly something already known, but on something derived therefrom. This derivation itself may be quite new/innovative, and gives the researcher the right to seek a patent over it. When the patent-holder ignores the original source of his research material or knowledge and denies any sharing of benefit to this source, then it becomes highly objectionable. Further, any attempt to use the patent on a derivative to excercise a right over the source itself makes the matter further condemnable & challengeable. The cases of Basamati rice, turmeric, and neem more or less corresponded to such deviations & extremities.

Part-II

Status of Implementation of

Bio-diversity Act in India

Case studies on

**Andhra Pradesh, Madhya Pradesh,
Jharkhand and Odisha**

FROM THEORY TO PRACTICE: THE ACTUAL SITUATION AT STATE LEVEL

The field study conducted by RCDC through the consultant reveals that National Biological Diversity Act, 2002 has been differentially valued, accepted and implemented in different states of India. Odisha is a state that is yet to plan and implement activities and has drafted the state biodiversity rules after 8 years of the central Act though final notification of the same is still pending (early May'11). The draft rules were expected to be approved in November 2010 and after that the state was supposed to start planning and implementing the activities, but it has been privately known that although finalized at the level of the Forest Department, it is under consideration of the Panchayati Raj Department as the BMCs are to be formed at Panchayat level. On the other hand the neighboring state of Andhra Pradesh has been implementing various activities since 2006 under the scope of BDA, 2002.

The following table summarizes the status in four states covered under our study:

SI.No.	States	Date of formation of SBB	Formulation of SBD Rules (as per draft BDR'2004)	Implementation of various activities and budget expenditure since formation of the State Biodiversity Board
1	Odisha	11-Nov-2009	Draft Rules published (Sep-2010), public views sought within 15 October 2010	No activities as on date except formation of SBB and preparation of draft SBB rules to be finalized in Nov' 2010
2	Jharkhand	20-Dec-2007	No notification till 24 th August 2011	Activities geared up after launching of India-UNDP BD project on 15-Sep-2009. Awareness generation, formation of EDCs (no BMC), capacity building and formulation of PBRs in 10 pilot villages of 2 development blocks are in progress.
3	Andhra Pradesh	20-May-2006	21-Aug-2009	Since FY-2007-08 till 1 st qtr of 2010-11, Rs.85 lakh is spent against released budget of Rs.115 lac. For FY-2010-11, allocated

				budget for AP is Rs.60 lakh and APSBB has placed proposal for additional budget of Rs.142 lakh under heads of accommodation during field work, filing in new staffs, travel and preparation of BMCs and PBRs.
4	Madhya Pradesh	11-Apr-2005 (17-Dec-2004, State Notif.)	17-Dec-2004 (Amend 1-Feb-2007)	Activities geared up after launching of India-UNDP BD project on 15-Sep-2009

Overall, the APSBB is very well placed to work involving various line departments like agriculture, fishery, veterinary, forest and many other departments, ICAR (NAIP project), MANAGE, and other research institutes to achieve the goals of SBB. Though in MP, SBR and SBB are in place since 2004 and 2005 and seems to be implementing various activities, there was hardly any information sharing. In Jharkhand, the project has been well perceived after India-UNDP project team is sincerely working for formation of EDC (Eco Development Committee in place of BMC since there was no panchayat election in the state), development of PBRs and other sensitization activities.

State Biodiversity Boards are mostly led and managed by the member secretary in absence of fulltime staff in place and effective & regular meetings of the Board members hardly take place. However, the APSBB seems to have taken some leading role with encouraging examples for other SBBs. Consultation and sharing with other members of SBB is very good in Andhra Pradesh. Access to documents and discussions was also found to be quite convenient in Andhra Pradesh where the system and processes are more transparent and better integrated with essence of RTI.

Common understanding about roles of state biodiversity board:

Across all states, the common views about role of State Biodiversity Boards are;

1. Advise the Government on matters relating to conservation of biodiversity, sustainable use and benefit sharing.
2. Regulation of commercial utilization and bio-survey.
3. Perform necessary functions to carry out Biodiversity Act 2002

Information dissemination about SBB:

Except in Andhra Pradesh and Chhattisgarh, the access to information about the SBB activities and its progress was found to be very difficult. An information seeker has to explain in detail and convince every person in any position related to activities of the state biodiversity board. A general tendency was to look towards an information

seeker in a suspicious manner. Even the hired social development personnel for managing the project who have adequate social development project management experience had lot of reservations in explaining the processes, progress and constraints to a researcher in name of official secrecy. In contrast, the officers in the senior most ranks in Andhra Pradesh, have given mobile and telephone numbers in the website and they have responded to frequent calls related to the subject without any hesitation. It was very pleasant to discuss with the officials in Andhra Pradesh and also officials in Chhattisgarh.

Formation of state biodiversity boards:

Under scope of section-22 of Biological Diversity Act-2002 (Central Act No 18 of 2003), the state governments has formed their corresponding State Biodiversity Boards which are duly notified by the government mentioning the members of the State Biodiversity Boards.

The SBB is to have atleast 5 ex-officio members and 5 non-official members, and the following table shows the status thereof in the study states:

States	No. of members
Odisha	10
Jharkhand	12
Andhra Pradesh	11
Madhya Pradesh	10

Andhra Pradesh had a fully functional APSBB in place though not fully staffed and NBA review meeting on SBB on 28-29 April 2008 was satisfied with the AP state biodiversity board.

There is no website for biodiversity board of Odisha. There is no publicly accessible information about Odisha State Biodiversity Board.

In case of Jharkhand, the notification date in records and that in the website was found differing (20-12-2002 in place of 20-12-2007), but the SBB is all set to make quick progress due to coordinated effort of UNDP-India project team under the active management of the Member Secretary. The SBB review meeting on 28-29/April/2008 mentioned that the Jharkhand State Government notification reached late after the review meeting and no body represented from state in the meeting which indicates no proper board in place in the state. The review meeting also mentioned about the issues in the JHSBB like notification received after the SBB meeting was over, no full time Chairperson and no full time Secretary. Review meeting by NBA mentioned about re-notification by state government considering issues of full time chairperson and member secretary.

India-UNDP Biodiversity Project has been operational in Jharkhand and Madhya Pradesh for a period of 3 years (2009-12) for “Strengthening Institutional Structures to Implement the Biological Diversity Act” .

Orientation meeting on India-UNDP Project in Jharkhand: Project Orientation Meeting at Jharkhand was organized on 14th September, 2009 under the Chairmanship of Sri Shiv Basant, Chief Secretary of Jharkhand. Project Launch Workshop in Jharkhand was organized on 15th September, 2009 by Hon’ble Governor of Jharkhand.

As per review meeting observation of NBA at Ooty on 28-29/April/2008, in Madhya Pradesh, there was issue of no full time chairperson, and positions of non-official members were vacant even after nearly 3.5 years of state notice on formulation of MPSBB (Notice No. F. 1-2/2003/LVII-Bhopal dated 17th December, 2004). Review meeting by NBA mentioned about re-notification by state government considering issues of full time chairman and filling the vacancies of non official members.

Activism on the part of SBB authorities:

Not only during the study but also during a follow up sharing workshop in December 2010 organized by RCDC it was found that activism of SBB authorities depended largely on the individuals, and less on the norms. In case of APSBB, the activism was found to be high because of this reason whereas despite necessary arrangements on the part of the organizers, facility of reimbursement for travel by air, and personal interactions none of other state SBBs sent even a representative whereas the chairpersons of Odisha and Andhra Pradesh SBBs participated in this workshop.

It was observed that taking ex-officio members is one of the major factors responsible for irregularity in meetings and decisions because these members are otherwise busy enough and getting their full attention to the Board’s activities is hardly possible. On the other hand, there also seems to be a lack of coordination & regular communication among the members. Some of the non-official members are just selected/nominated randomly without understanding whether they would be able to give due attention & time for the job. Many such factors ultimately & adversely affect the functioning of the SBB.

Comparative provisions in SBBs and/or State Biodiversity Rules:

A comparison of the provisions in SBBs and/or State Biodiversity Rules in the study states indicated the following:

- In MP there is a clear provision to give the Chairperson post of the SBB even to a minister while in Orissa it is available for a serving bureaucrat in the government. In Jharkhand the Principal Chief Conservator of Forests was made the chairperson. However, the APSBB doesn’t provide for any such option directly.

- Most of the state biodiversity rules provide for BMCs at three levels of panchayati raj institutions whereas in Orissa draft Rules the intermediate panchayat, i.e. the Panchayat Samiti was excluded from this.
- Other provisions are more or less the same as the states have followed the Central Biodiversity Rules and probably some model state biodiversity rules (because certain descriptions like who should be the members of BMCs are absent in the Central Rules), and most of the suggestions in annexure-IX would therefore be applicable to all these state Rules.

Measures taken by Government of India:

As regards the study states, the Government of India, in consultation with the concerned states and under the Biological Diversity Act, 2002 notified a list of flora and fauna on the verge of extinction, first for Odisha on 30th September 2009 and then for Madhya Pradesh on 7th June 2010 (vide annexures XII and XIII). Such notifications for Jharkhand and Andhra Pradesh are not known.

PROGRESS IN ANDHRA PRADESH

Introduction to AP:

Andhra Pradesh abbreviated A.P., is a state situated on the southeastern coast of India. It is India's fourth largest state by area and fifth largest by population. Its capital and largest city is Hyderabad. The State has the second longest coastline 972 km among all the States in India. Andhra Pradesh lies between 12°41' and 22°N latitude and 77° and 84°40'E longitude, and is bordered by Maharashtra, Chhattisgarh and Odisha in the north, the Bay of Bengal in the East, Tamil Nadu to the south and Karnataka to the west. The state is historically called the "Rice Bowl of India". More than 77% of its agricultural crop is rice. Two major rivers, the Godavari and the Krishna, run across the state.

Andhra Pradesh ranks tenth compared to all Indian States in the Human Development Index scores with a score of 0.416.

Geographically, the state is composed of most of the eastern half of the Deccan plateau and the plains to the east of the Eastern Ghats. The northern part of the plateau is the Telangana region and the southern part is known as Rayalaseema. These two regions are separated by the River Krishna. The plains to the east of Eastern Ghats form the eastern coastal plains. The Eastern Ghats are discontinuous and individual sections have local names. The Kadapa Basin formed by two arching branches of the Eastern Ghats is a mineral rich area. The coastal plains are for the most part delta regions formed by the Godavari, Krishna, and Penner rivers. The Eastern Ghats are a major dividing line in the state's geography. The Ghats become more pronounced towards the south and extreme north of the coast. The Eastern Ghat region is home to dense tropical forests, while the vegetation becomes sparse as the Ghats give way to the Deccan Plateau, where shrub vegetation is more common. Most of the coastal plains are put to intense agricultural use. The west and southwest parts of Andhra Pradesh have semi-arid conditions.

The state has a rich cultural heritage. The people are industrious, and attentive to their duties/responsibilities.

Forests :

The state has a total forest area of 63,814 sq. km. It is 23% of the total geographical area of the state. The forest is a major source of income to the tribal people. Some people use typical timber in their wood carving and it enhances the art of craft of the

state. The medicinal plants grown in the forests are of biological importance and are of great economical value.

The Eastern Ghats forests are a great repository of biodiversity in the state. Arku valley in the Ghats is famous for its scenic beauty and floral richness.

Biodiversity Conservation in the state:

The State Biodiversity Board of Andhra Pradesh was formed in 2006 whereas state BD Rules were notified in 2009. Annexure-V contains a list of the Board's members.

Formation of expert committees:

Andhra Pradesh has formed various expert committees to advise on various issues. These expert committees are formed and engaged as per SBB Rule 12. However, the final decisions on the findings of the expert committees will be taken by the APSBB. The major issues focused are as follows.

1. Agro-biodiversity,
2. Animal and fish biodiversity,
3. Wildlife Conservation and protection
4. Traditional knowledge associated with medicinal Plants, conservation and Bio-prospecting.
5. Legal matters relating to IPR
6. Awareness and Capacity Building
7. Declaration of biological Heritage sites

Urgent Expert Committees necessary

The APSBB has discussed with NBA to urgently formulate expert committees to look into issues of

- Access and benefit sharing
- Biodiversity evaluation
- Biodiversity impact assessment

Formation of biodiversity management committee (BMC)

Under section 41, every Local Body shall constitute BMC within its area for

- Promoting conservation biological diversity
- Sustainable use biological diversity
- Documentation of biological diversity & Habitat
- Conservation of land races
- Folk varieties and cultivars
- Domesticated stocks & breeds of animals & microorganisms
- Chronicling of knowledge relating to biodiversity

Andhra Pradesh has considered all local bodies (nearly 23000) to be capacitated as BMCs at

- Zilla parishad level,
- Mandal Parishad level,
- Gram Panchayat level and

- Municipality & Municipal Corporation level

As described by the Chairman, APSBB, the members of BMC will be 7 involving all within limits of voter list and SC/ST proportion will as per population in the village. The representatives will contain i) Local naturalist, ii) Herbalist, iii) Agriculturist, iv) NTFP collector/ traders, v) Fisher folk, vi) Representatives of user associations, vii) Community workers, viii) Academicians and ix) VSS member.

APSBB has worked with less than 20 BMCs (15 upto June 2010) and has plans to activate all local bodies as BMCs with availability of resources, as this involves lot of field work like meeting, training, exposure etc. .

S N.	Name of District	Number of BMCs formed¹
1	<i>Kurnool district</i>	7
2	<i>Vishakapatnam district</i>	2
3	<i>West Godavari district</i>	2
4	<i>Mahaboobnagar district</i>	1
5	<i>Anathapur district</i>	1
6	<i>Nizamabad district</i>	1
7	<i>Nalgonda district</i>	1
	<i>In progress</i>	<i>61 (Srikakulam- 9, Medak-30, Anantpur-2, Adilabad-20)</i>

As explained by the Member Secretary, APSBB, the BMC will be trained and capacity built to

- help SBB and NBA (as per provisions in Sec-41 (2,3) for taking decisions related to use of biological resources and share indigenous knowledge related to bio resources occurring within their jurisdiction;
- levy charges on users for collection of biological resource for commercial purpose
- manage the local biodiversity fund created from any grant & loans made by the government, made by NBA, made by SBB, fees, other funds received by local biodiversity fund as decided by government. The above funds shall be applied
 - As prescribed by government for conservation and
 - For Promotion of biodiversity within the area of jurisdiction

¹ The data on actual composition of BMCs has not been verified during the study.

Awareness, training & capacity building of BMC & community

APSBB has involved the Technical Groups and Expert members to Orient the BMCs. But no extensive work has been done due to lack of provisions.

Andhra Pradesh celebrated the Biodiversity Day cheerfully on 22 May 2010 by conducting official workshops and by school children participating in drawing competitions

Publications

Biodiversity News of Andhra Pradesh (Published every quarter since year 2007), Chief Patron Dr. R. Hampaih, Chairman, A. P. State Biodiversity Board



Formulation PBR reports

APSBB is to finalize 5 PBR reports by November, 2010

Studies and research activities

APSBB is coordinating with all line departments for necessary studies. Without adequate fund support from state or NBA or any other support agencies, it is yet to conduct dedicated studies. As such, there is also no dedicated officer and support staff in the APSBB to look after all these studies and activities.

Important suggestions by SBB to government and other agencies

APSBB has been working in convergence with various other line departments and support agencies. In its last quarterly board meeting (July-Sep 2010), the APSBB has passed the resolution to request the Government of Andhra Pradesh to request the Government of India to make mandatory to have "Biodiversity Impact Assessment" before sanction of any project as it is done for assessment of Environment in the form of Environment Impact Assessment (EIA).

Funds requirement plan for BMC:

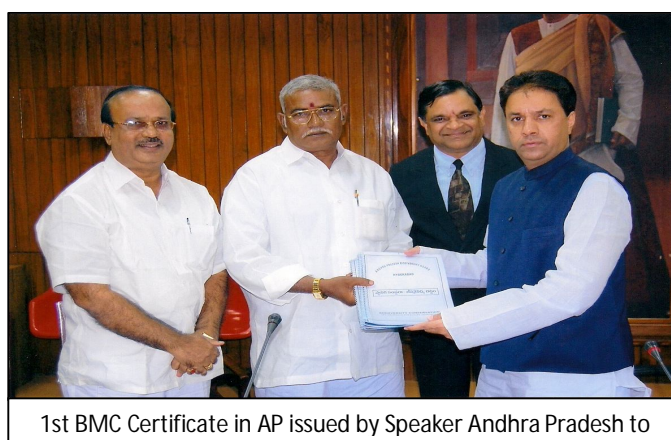
The APSBB explained the financial need for BMC for following :

- Establishment of BMC
- Establishment of BMC's office
- Awareness of the people about the Act and Rules
- Trainings and capacity building
- Preparation of People Biodiversity Register (PBR)

APSBB estimates a need of Rs 50,000 per BMC to achieve the above goal and for financial year 2010-11, the APSBB estimates to reach to 100 BMCs and the financial requirement reported to NBA as additional need is Rs.50 lakhs

Resource mobilization from NBA and convergence with other agencies

Indian Council of Agriculture Research (ICAR) sanctioned a National Agricultural Innovative Project (NAIP) to APSBDB on “Harmonizing Biodiversity Conservation and Agricultural Intensification through integration of Plant, Animal and fish genetic recourses for livelihood security in fragile ecosystem” in which the member Secretary is Co-Principal Investigator (CoPI) for the project



The project is sanctioned for 15 villages from 3 mandals of Adilabad district (mandals are Bhimni, Khanapur and Kerimeri). The Project period is 4 years from 2009-10 to 2012-13, with budget of Rs.99.02 lakhs which engages 2 Senior Research Fellows. Project work started from financial year 2010-11 and amount released Rs.12.72 lakhs and expenditure up to July'10 is Rs. 3.97 lakhs

APSBB is also coordinating with GEF, UNDP and other agencies for sector specific support and also in technical consultation with expert NGOs like CES, CMS and Deccan Dev. Society.

TOTAL BUDGET (ALLOCATION, RELEASE AND UTILIZATION in lakh rupees)

S	Year	Budget allocation	Budget Released	Expenditure
1	2006-2007	Nil	Nil	Nil
2	2007-2008	Rs. 54.97	Rs. 54.97	Rs. 27.21
3	2008-2009	Rs. 35.00	Rs. 35.00	Rs. 35.00
4	2009-2010	Rs. 10.00	Rs. 10.00	Rs. 08.75
5	2010-2011	Rs. 60.00	Rs. 15.00 (I qtr)	Rs. 15.00

Heritage sites

1. Veerapuram in Anantapur district for Migratory birds, (Painted stork)

- A proposal is submitted to the Government of Andhra Pradesh
- This is the site where migratory birds come in flock of hundreds
- Villagers take it as god’s gift and protect the birds with full devotion

2. Anantpur: Timmamma Marrimanu (huge banyan tree, religious value attached)

Ficus bengalensis (supposed to be 500+ years old) finds place in Guinness Book of World Record, and covers 5 acres area. Proper measures to conserve the tree, and to develop the peripheral area for ecotourism is required.

3. Medak, Zaheerabad- Agricultural Biodiversity. Organic farming in 1 piece of land; 85 types of crops; pulses, oil seeds, vegetables, & medicinal plants.

4. Other probable Heritage Sites:

<u>Sl.no</u>	<u>Name of the place</u>	<u>District</u>	<u>Reason</u>
1	Konda karla Ava	Vishakhapamum	Migratory birds
2	Telukunchi	Srikaulam	Migratory birds
3	Tatipudi Reservior	Vijayanagaram	Fish foot birds
4	Katakshapur	Warangal	Migratory bird
5	Chintapalli	Khammam	Migratory birds
6	Choudavaram	West Godavari	Migratory birds

Fees for access to bio-resource material

For this purpose, a separate joint bank account, jointly operated by Chairman and Member Secretary is opened for depositing the fees, licenses fees, royalty and other receipts of the Board.

First receipt of fees of Rs.10,000/- in the form of DD for access of biological material (Indian Senaga *Glinus oppositifolius* Linn) was from Bio-India Biological (BIB) Corporation, Nacharam, Hyderabad. In this process BMC Gavinivaripalem in the Prakasham district of Andhra Pradesh, alongwith other 5 BMCs is involved.

Measures to prevent bio-piracy

The Board proposed prevention of bio piracy through the capacity building, initiatives of grass root level staffs of the line departments, empowering the self help groups and BMC for reporting and preventing biopiracy, and also through establishment of biopiracy squads as striking force to combat biopiracy.

The first biopiracy case as per the Biological Diversity Act, 2002 was booked against a German national Dr. Marc Clark Baumgartner and his local associate, Mr. Venkat Reddy.

Other innovative activities

BMC Mahanandi has resolved that an accession fee of Rs. 300 lakhs will be charged on multinational seed company (Monsanto) for alleged biopiracy of the bacteria, *Bacillus thurengiensis* (BT cotton) from its area of jurisdiction.

The Board proposed to initiate action against the soft drink companies which are preparing "herbal cola" drink based on the traditional knowledge of the *Decalepis hamiltonii* in southern Andhra Pradesh.

Trademark dispute case with respect to Sona Masuri variety of rice has been taken up. Malaysian Company withdrew the case.

Issues with SBB:

APSBB has struggled for better infrastructure and human resource alongwith necessary budget support. Some of these issues have been addressed in the meantime.

There is an issue of Reserve Forest biodiversity management because the Forest Department claims its sole right on this and BMCs are supposed to have their jurisdiction outside the reserve forests.

Observation:

Among the four study states only APSBB seems to have done some real and remarkable progress at ground level though the achievements are still not so widespread in the state. The progress could be possible partly because the Chairperson is not an ex-officio member but a full-time functionary with a vision and dynamic spirit. And his initiatives have received adequate support from the dynamic Board members, PRI functionaries, and other stakeholders like the private company BioIndia Biologicals which paid the fee for accessing biological materials first in the state. The people of Andhra are known for their sincere entrepreneurship and in this particular case also that has been reflected though not to a great extent.

PROGRESS IN MADHYA PRADESH

Madhya Pradesh was the largest state in India until 1 November 2000, when the state of Chhattisgarh was carved out. It borders the states Uttar Pradesh, Chhattisgarh, Maharashtra, Gujarat and Rajasthan. The state has an area of 308,252 km².

There are a number of sites of historical and/or ecological importance in the state, like Sanchi stupa, Bandhavgarh National Park, city of Ujjain, etc.

Climate, flora & fauna:

Madhya Pradesh has a subtropical climate with an average rainfall of about 1,370 mm. The western and north-western districts receive lesser rainfall than the other parts thereby affecting the abundant growth of vegetation there.

Madhya Pradesh is endowed with rich and diverse forest resources. The forest area of the state is 95,221 km² constituting 31% of the geographical area of the state and 12.44% of the forest area of the country. Central, eastern and southern parts of the state are rich, whereas northern and western parts are deficient in forest.

National Parks

Madhya Pradesh is home to 9 National Parks, including the famous Kanha National Park. There are also a number of natural preserves like the Bori Natural Reserve.

State Biodiversity Management

Formation of technical support group

The expert groups/ technical support groups are formed in 50 districts of Madhya Pradesh to guide BMCs in understanding the biodiversity acts, rules and formulation PBRs and make adequate campaign at local level. Discussion and Information on TSG was not very practical and we referred to the data on website. Actual names of TSG and their operational details were not available.

Formation of biodiversity management committee (BMC)

MPSBB claimed to have formed 23741 BMCs² in all Gram Panchayats in its 50 districts and these BMCs would facilitate awareness and capacity building of partners including Biodiversity Management Committees, NGOs and other agencies.

SN	Level of Bodies	Total No	BMCs Formed	Formation amount for each BMC	Total Amount
1	District Panchayat	48	48	25000	
2	Janpad Panchayat	313	313	15000	15000
3	Municipal Corporation	14	14	15000	15000

² However, few of the officers involved in the project made opinion that nearly 900-1000 BMCs are formed in the state.

4	Municipalities	86	86	10000	10000
5	Nagar Panchayat	237	237	5000	5000
6	Gram Panchayat	23043	23043	0	0
		23741	23741		8150000

Various District Panchayat Level BMCs are:

Indore: Dhar, Khargone, Barwani, Zhabua, Khandwa, Burhanpur

Ujjain: Dewas, Ratlam, Shajapur, Mandsaur, Nimuch

Gwalior: Shivpuri, Guna, Datia, Ashok Nagar

Morena: Sheopur, Bhind

Rewa: Shahdol, Anuppur, Umaria, Sidhi, Satna

Sagar: Damoh, Panna, Chhattarpur, Tikamgarh

Bhopal: Sehore, Raisen, Rajgarh, Vidisha, Betul

Hoshangabad: Harda

Jabalpur: Katni, Narsinghpur, Chhindwara, Seoni, Mandla, Dindori & Balaghat.

Awareness, training & capacity building of BMC & community

MPSBB has been doing lot of awareness programs like Mowgli Bal Utsav, stakeholders workshops in different eco-regions, BMC trainings, PBR trainings, Ekant Utsav on Biodiversity Day on May 22 in Ekant Park, livelihood training workshops, workshops for mainstreaming biodiversity concerns in district planning, training workshop for teachers for biodiversity education, workshop on biodiversity conservation for sustainable livelihood.

In collaboration with Centre for Ecological Sciences (CES), Indian Institute of Science, Bangalore, a three-day workshop on People's Biodiversity Registers (PBR) was organized to develop shared understanding of the framework for documentation of biodiversity through PBRs and the methodologies for documentation, targeting school and college teachers, and Non-Government Organizations (NGO) working on biodiversity issues.

Peoples' Biodiversity Register's training workshop for Vindyan eco-region involving 30 representatives from 23 NGOs from six of the seven districts of the region.

The response during discussion revealed that SBB do not get enough cooperation from local bodies/Gram Sabha/PRIs in biodiversity conservation. However, nearly 20% of the local bodies are said to be sincerely participating in biodiversity conversation.

Formulation of PBR reports:

No specific break up was available to be shared. However, more than 50 PBRs have reportedly been prepared. As per MPSBB the Zilla Panchayat BMC will be responsible for developing a district wide network of PBR database. These would then be integrated in the State Biodiversity Information System (SBIS) of the Board. The mandates of MPSBB are to develop PBRs in 6 eco-regions, PBRs would be

driven by colleges/ schools as eco-regional documents, and would act as a thematic report from eco-regions on different facets of biodiversity. It would be compiled to form a state level reports on sustainable limits/practices of focal taxa and document the best practices in the state.

Studies and research activities

MPSBB has taken up elaborate surveys and studies on phytodiversity, aquatic diversity, faunal diversity, and traditional knowledge, etc. Some of the studies are as under:

1. Assessment of Status and role of sacred groves in conservation of biodiversity at different levels in MP.
2. Strategic plan for establishing/strengthening botanical garden at Bhopal Floral Biodiversity of Ujjain Division, their status cataloging and documentation.
3. Collection, maintenance, characterization and evaluation of land races of small millets especially for biotic stresses in the tribal areas of Rewa division of MP.
4. The Board also took an initiative for developing a digital data base of Biodiversity of Madhya Pradesh at tehsil level, consisting of different layers viz. Terrestrial Biodiversity, Aquatic Biodiversity, Medicinal Plants Biodiversity, Agricultural Biodiversity, Poultry Biodiversity and Livestock Biodiversity by MAPCOST.

Important suggestions by SBB to government and other agencies

- Integration of BD conservation measure with District Plans:

MPSBB has been operational since 2004 and has taken a key step to integrate District Plans. Winrock International India has helped in the process with pilot in Seoni district as per MP State Biodiversity Rules 2004 (Mandate of State Biodiversity w.r.t to cross sector integration in planning). The mandate set in 2005 was to pilot with following objectives.

- 6 districts plans to pilot test integration of BD concerns using tools of sectoral analysis
- Capacity building of the District Planning Teams taken up
- Guideline for mainstreaming BD in inter-sectoral district planning.

However, the follow up is supposed to be inadequate due to change of guards at SBB and SPB.

The MPSBB is concerned to:

- a. Ensure conservation, sustainable harvest and equity in sharing benefits arising out of the use of biodiversity.
- b. Integrate biodiversity concerns in local planning.
- c. To document biodiversity and associated knowledge (PBR) and ensure its protection..
- d. Levy fee on bioresources accessed for commercial purpose.

Funds requirement plan for BMC:

This could not be ascertained during the study no plans and budget being shared on this aspect. Regarding support for Tehnical Support Group(TSG) to guide formation

of PBR, it is understood that the commissioner is the chief of TSGs in every district. As per the respondent they are self trained to assist the PBR. PBR formation cost is Rs.3000/- .

Resource mobilization from NBA and convergence with other agencies:

NBA has provided support to the MPSBB. Information on regularity and amount was not specifically available, but nearly 185 lakh rupees are spent by the Board in field and infrastructure development.

MPSBB has converged with UNDP-India project for 3 years to build institutional capacities at all levels for better implementation of the program.

The MPSBB Board proactively solicits projects befitting the mandate of the Board from organizations with proven track record of biodiversity related research and action. Short duration and small budget projects with specific deliverables under the Boards thematic areas are especially encouraged. All the projects are to be submitted in the prescribed format, projects not in the format are not considered. The projects are to be submitted to the Eco-regional Support Group of the respective eco-region with an advanced copy marked to the Board. Only proposals endorsed by the ESG will be considered. However, for projects transacting eco-regions, the same can be directly submitted to the Board. The received projects are put-up in the Project Approval Committee (PAC) of the Board. The PAC reviews the proposals with respect to the mandate of the Board for sanctioning the project.

Total budget (allocation, release and utilization)

Regular grants are given by NBA. However, the state government provides the financial aid for smooth functioning of SBB. The actual figures and budgeted heads were not available.

Heritage sites

MP has a lot of potential sites suitable to be declared as bio-heritage sites.

Fees for access to bio-resource material: No specific response obtained on this during the discussion.

Measures to prevent bio-piracy: No specific response obtained on this during the discussion.

Other innovative activities:

The Board is working in tandem with other key partners to harness this potential. Bio-resource assessment, improved technology of harvesting, processing and value addition and strengthening of institutional capabilities are the key focal areas. Sustainable livelihood through empowering regimes of conservation, sustainable use of equitable benefit sharing shall be a constant endeavor of the Board, done collaboratively so as to foster a new paradigm of development, which follows the conservation route.

The MPSBB has integrated education, awareness and training programs on BD through media campaign (AV with eco-regional partners), Mowgli Bal Utsav, reviving/setting-up civil society institutions, Biodiversity Pustika developed and disseminated, WALMI/SIRD running courses on Biodiversity, minimum one interpretation centre in urban area (Ekant Park-Bhopal), commencement of work on two Biodiversity Parks (Jabalpur and Gwalior).

Issues with SBB:

There are no issues as shared in the discussion, but financial requirement for capacity building of BMCs, adequate staff and resources for formation of PBRs and handholding of BMCs to actively work for the objectives of SBB is definitely understood concern for the SBB.

A perceptive summary about MPSBB would be that the state has taken initiative to attain figures like infrastructure and office development, formation of BMC and making large number of studies; but after putting resources for all these basic hardware components, the utility and qualitative aspects related to key achievements of SBB is to be critically thought of.

Observation:

Madhya Pradesh did some pioneering work in implementing the mandates of BDA, but the spirit doesn't seem to have continued further and the some of the claimed achievements might be more on paper than on ground.

PROGRESS IN JHARKHAND

Jharkhand is a resource-rich tribal state in eastern India. It was carved out of the southern part of Bihar on 15 November 2000. Jharkhand shares its border with the states of Bihar to the north, Uttar Pradesh and Chhattisgarh to the west, Odisha to the south, and West Bengal to the east. It has an area of 74,677 km². The capital city is Ranchi while Jamshedpur is the largest city of the state.

The name "Jharkhand" means "land of forests". The dynamics of resources and the politics of development still influence the socio-economic structures in Jharkhand. The state is a leading producer of mineral wealth in the country, endowed as it is with vast variety of minerals like iron ore, coal, copper ore, mica, bauxite, graphite, limestone, and uranium. Jharkhand is also known for its vast forest resources.

Most of the state lies on the Chota Nagpur Plateau, which is the source of the Koel, Damodar, Brahmani, Kharkai, and Subarnarekha rivers, whose upper watersheds lie within Jharkhand. Much of the state is still covered by forest. Forest preserves support populations of tigers and elephants.

Flora and fauna

Jharkhand has a rich variety of flora and fauna. The National Parks and the Zoological Gardens located in the state of Jharkhand present a panorama of this variety.

Betla National Park in the Palamu district, Palamau Tiger Reserve, and the Hazaribag Wildlife Sanctuary, are among the important Protected Areas of the state whereas Jawaharlal Nehru Zoological Garden in Bokaro Steel City is the biggest Zoological Garden in Jharkhand.

State Biodiversity Management

Formation of Technical Support Group

Jharkhand has also formed Eco-Development Committees/(EDC) and TSG (Technical Support Groups) for all 5 EDCs (say BMCs) to guide them in PBR development. Following are two examples of such TSGs:

Technical Support Group for Hazaribagh district:

1. Prof. M. Razziudhin, Ex. Head of the Zoology Department, B.V. University, Hazaribagh
2. Dr. Ayodhya Singh, Lecturer, Botany Department, St. Columbus College, Hazaribagh
3. Dr. R. K. Singh, Senior Scientist, Rice Research Institute, ICAR
4. Dr. J. Dubey, Junior Vet. Doctor, Pelawal, Hazaribagh
5. Mr. Murari Singh, Member of IBCN (NGO)
6. Divisional Forest Officer, Hazaribagh East Forest Division
7. Divisional Forest Officer, Hazaribagh West Forest Division
8. Divisional Forest Officer, Wildlife Division, Hazaribagh
9. District Fishery Officer, Hazaribagh
10. President, NEO Human Foundation, Hazaribagh

Technical Support Group for Latehar district:

1. Dr. D. S. Shrivastava, Retd. Prof. of Zoology, Nilambar Pitamber University (Expertise – Wildlife, Ecology and PBR)
2. Mrs. Eva Shrivastava, Retd. Reader, Nilambar Pitamber Univ. (Expertise – Women empowerment and zoology)
3. Dr. Rakesh Kumar, Prof. of Botany, Nilambar Pitamber University (Expertise – Plant Science)
4. Dr. Pradeep Kumar, Prof. of Zoology, Nilambar Pitamber Univ. (Expertise – Fisheries)
5. Dr. Ambalika Prasad, Prof. of Zoology, Nilambar Pitamber Univ. (Expertise – Insect and Ecology)
6. Dr. Manoj Singh – Field Director, Palamau Tiger Reserve (Expertise –Forestry and Botany)

Formation of Biodiversity Management Committee (BMC)

In Jharkhand, two districts were selected for implementing the project on a pilot basis, viz. Hazaribagh(15 Blocks) & Latehar(7 Blocks). Nearly 25 EDCs are formed in these 15 blocks. Due to want of Panchayat elections in the state there were no formal PRI and Zilla Parishad members to form BMCs. Hence EDCs were promoted under the India-UNDP project to serve the purpose of BMCs. Although panchayat elections were already over by the time of e-publication of this report, BMCs at PRI/ULB level were yet to be formed and we were told that it was in process.

Awareness, training & capacity building of BMC & community:

Awareness programme in selected districts have been organized on Biological Diversity Act. Details of awareness programmes are given below:

a) Hazaribagh workshop

Village: Jalima (Date: 24/01/2010)

The participants were as under:

Member Secretary, SBB, Ranchi; CF Ranchi / DFO, Wildlife, Hazaribag & other staff; State Project Coordinator, SPU (UNDP), Ranchi, More than 700 villagers; 5 local experts from University and NGOs; 50 students from 5 local schools; NGOs / social workers; press / media (local channel & Doordarshan) representative.



Activities:

- 1) Rakshabandhan, 2) Quiz competition among the students; 3) display/banners and statue/film show; 4) Speech by local experts

and villagers; 5) Cultural programme, songs and poetry by locals, based on conservation of bio-diversity; 6) Prize distribution (Sponsored by NGO);

b) Latehar Workshop

Village : Betla (Date: 13/02/2010)

The participants were:

Forest Department officials; University professors & experts (agriculture, horticulture, veterinary, fishery); NGOs; students; EDC members; women from different organizations.

Activities:

1) Presentation about Biodiversity of the district, 2) People's Biodiversity Register (PBR); 3) Biodiversity Act; 4) Opinion of participants, professors, experts etc; 5) Open forum / question-answer.

Awareness/ exposure visits

Date of visit	Venue	Name of the School	No. of School Children
17 April 2010	Hazaribagh Wildlife Sanctuary	Sijua High School, Hazaribagh	35 + 3 teachers
8 May 2010		Vivekanand School, D.A.V. Public School, Hazaribagh	66 + 5 teachers
22 May 2010		Middle School, Donaikala, Ichak & Kaladwar, B.S.S. Vidhyamandir, Dand; Nawadih Middle School, Champanagar	150 + 10 teachers

Five PBR training programmes (02 in Hazaribagh & 03 in Latehar) have been organized in both the selected districts. The trainings have been given to the Eco-Development Committees (EDCs) and villagers of the respective.

Two hundred fifty EDCs member (nearly 25 EDCs) & villagers have been trained for making PBR in two districts.

Training inputs

- General information on biodiversity,
- Biodiversity Act and its importance,
- Sustainable use, conservation and equitable benefit sharing of biodiversity,
- About PBR

Hazaribagh: Duration : 19th – 23rd March, 2010
Latehar: Duration : 25th – 28th March, 2010

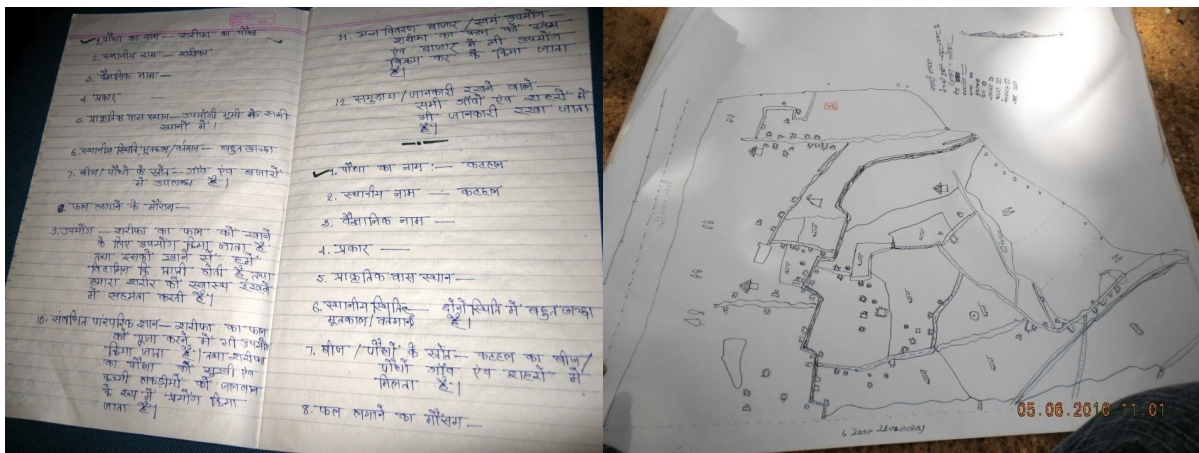


(PBR training event in Latehar)

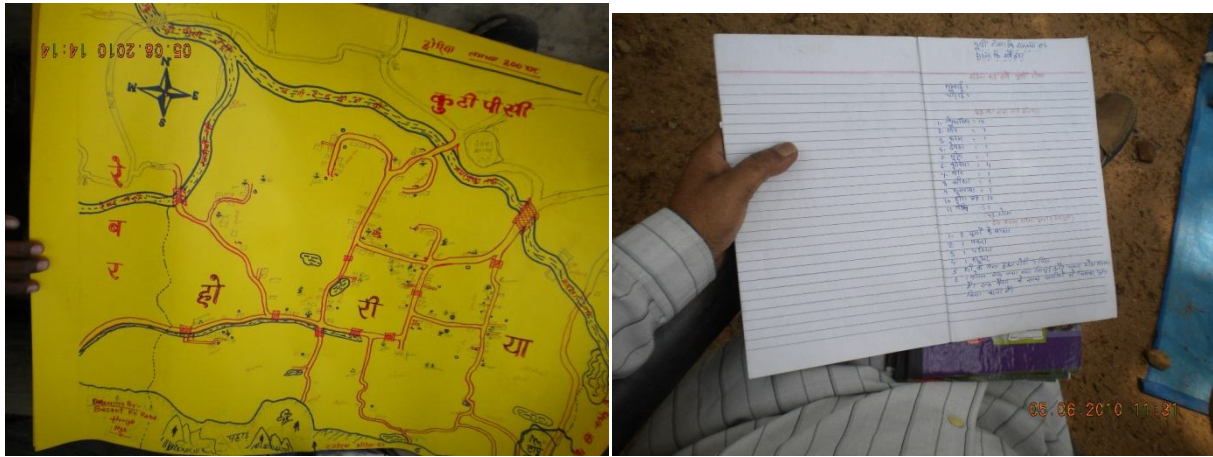
It also celebrated the day through official workshops, quiz and debates involving school children and youth in Hazaribagh and Latehar district.

PBR training outputs

The training programmes in preparation of biodiversity registers resulted in preparation of some PBRs. Below are some specimen outputs from participatory exercise for PBR preparation by EDC:



Kechki Village, Latehar district



*Horia village, Hazaribag district
(Photo courtesy: SBB, Jharkhand)*

Publications

During the year 2009-10, awareness material on biological diversity has been published and was distributed in the workshop and training programmes by JHSBB.

Formulation of PBR reports:

7 PBRs have been developed on the basis of PBR trainings in the 7 villages of both the selected districts namely – Horia, Kayle, Donaikala, Lotwa from Hazaribagh district and Kechki, Mirchaiya & Karway from Latehar district.

Studies and research activities

Documentation of medicinal plants from Garu Jungle has been done and the same has been sent to NBA, Chennai for needful action. Proposal for following studies has been received:

- **Short term project on documentation of industries using bio resources and inventory of bio resources used in industries for commercial and general purposes for the entire Jharkhand state**

The proposal has been received from Institute Forest Productivity (IFP), Ranchi and the cost of work is Rs.3.00 lakh

- **Survey and data collection for alien and invasive animal and plant species in the two districts- Latehar and Hazaribagh, their occupied area and its impact**

The proposal has been received from Institute Forest Productivity (IFP), Ranchi and the cost of work is Rs.4.50 lakh

Important suggestions by SBB to government and other agencies

No specific information was available on this.

Funds requirement plan for BMC:

The JRSBB explained the financial need for BMC in the following ways:

- Establishment of BMC
- Establishment of BMC's office
- Awareness building of the people about the Act and Rules
- Trainings and capacity building
- Preparation of People Biodiversity Register (PBR)

Resource mobilization from NBA and convergence with other agencies

JHSBB has converged with UNDP-India project for 3 years to build institutional capacities at all levels for better implementation of the program.

Total budget (allocation, release and utilization)

Though there was no clear information of budget expenditure in Jharkhand, it is in the range of Rs.1.5 Crore (NBA and India-UNDP project) after 2009.

Heritage sites

JRSBB has identified 2 sites in Hazaribagh and Latehar districts and is planning to develop plan for its protection and development.

Fees for access to bio-resource material

No such information was shared.

Measures to prevent bio-piracy: No such information was shared

Issues with SBB:

No adequate information was shared because of concerns related to the relevance of such information to the surveyor.

The JHSBB was found to be in a formative pilot stage to slowly unfold the project and then scale up in the state.

Observation:

The Jharkhand SBB seems to have done some remarkable work, but on project mode. It is yet(24-8-2011) to notify its State Biodiversity Rule. The Board doesn't seem to be truly dynamic in its action though Jharkhand is in dire need of a committed biodiversity conservation and management.

Odisha, previously/otherwise known as **Orissa** is a state located on the east coast of India. It is the ninth largest state by area in India, and the eleventh largest by population. The state has been known from ancient times for its natural resources, religious shrines, warriors, and culture. However, the corporate era looks onto Orissa as an important resource area for mineral deposits like iron ore, bauxite, and coal, etc. with good potentials for contract farming, energy plantations, carbon sink plantations, and tourism.

Bio-diversity

The state used to be one of the highly forested provinces of the country till 5-6 decades ago. The topography, geomorphology, and climatic conditions favoured a lustrous growth of diverse species of flora & fauna, ranging from salt water crocodiles to the Royal Bengal Tiger and supporting more than 100 orchid varieties. It has several bio-diversity hot spot areas of the Indian subcontinent. While several unique, endemic, rare and endangered floral and faunal species have been scientifically discovered here, legendary species like the bhraramamari point out at some more distinguished position in the past.

Odisha has 5 major geomorphological zones – the coastal plains, the middle mountainous and highlands region, the central plateaus, the western rolling uplands, and major flood plains. Bhitarkanika Wildlife Sanctuary (BKWS) and the Chilika lake have been recognized as Ramsar sites while Shimilipal is a Biosphere Reserve. The tigress Khairi created a history in the relationship of humans with wildlife. Olive Ridleys continue to come to the Orissa coast every year for nesting while the Irawadi dolphins of Chilika are a part of the local ecosystem.

The state has two National Parks and 18 wildlife sanctuaries where the government is trying to protect & conserve the rich bio-heritage. This attempt however has not proved to be uniform in its achievements. While the population of salt water crocodile has substantially increased that of tiger has seen the opposite trend. This is partly because the conservation approach & initiatives have not been inclusive & participatory, and partly because there has been a lack of sincerity & integrity at the policy as well as implementation level. Wildlife corridors have been 'encroached' for mining and other such activities in the name of development. Valuable forest lands have been diverted for non-forest use while investments to provide adequate support to biodiversity conservation has received a least priority. On the other hand rural communities themselves have protected & conserved patches of good forest, and some of them have even protected wildlife. If the rare Blackbuck can be still easily sighted in the state in wild, then that is not in the government-protected Balukhand sanctuary but in the Bhetonoi-Balipadar area of Ganjam district where the local people have protected the species at the cost of their own livelihood.

State Biodiversity Management

The state government published draft State Biodiversity Rules in September 2010 for public comments/suggestions within 15 October 2010. By the time of e-publication of this report the final notification of this Rule was still pending. It is understood that the unusual delay was partly due to awaiting the consent of the Panchayati Raj Department and the Urban Development Department under whom the local bodies have to form Biodiversity Management Committees.

Biodiversity registers on rare flora & fauna

May 23, 2011, 11.02am IST

BHUBANESWAR: The state government is going to prepare a people's biodiversity register in which all species of rare, endangered and threatened animals and plants in a particular locality will be documented.

Initially, the process will begin in 50 gram panchayats in 10 agro-climatic zones of the state. On the basis of these registers and the richness of flora and fauna, the locality will get a biodiversity heritage tag, forest and environment secretary Arabinda Behera said at a programme celebrating International Biodiversity Day here on Sunday.

"In one or two places people have already started documenting rare and endangered species and have also taken steps to conserve them. The registers would have details of access to biological resources and traditional knowledge of the region," Behera added.

(Source: http://articles.timesofindia.indiatimes.com/2011-05-23/bhubaneswar/29574005_1_species-state-biodiversity-board-biodiversity-management-committees)

The Board has not functioned properly since its formation. Meetings are a rare activity, and activism is missing.

Formation of expert committees

No such progress till date.

Formation of Biodiversity Management Committee (BMC)

This is pending due to lack of final notification of State Biodiversity Rules.

Awareness, training & capacity building of BMC & community

No such activity till date on the part of the State Biodiversity Board though some other agencies like ODAF have been trying on this front.

Studies and research activities

No such activity reported till date on the part of SBB though various other agencies have taken up studies on their own on biodiversity conservation and indigenous knowledge systems.

Important suggestions by SBB to government and other agencies

No such activism is reported.

Funds requirement plan for BMC

No information received in this regard.

Resource mobilization from NBA and convergence with other agencies

No information received in this regard. The Board approved of the accounting procedures in its second meeting held in May 2011.

Total budget (allocation, release and utilization)

No detail information received on this though we have been told that only a small fund has been received for administrative activities.

Fees for access to bio-resource material

Odisha is to make necessary progress after validation and notification of SBB rules.

Measures to prevent bio-piracy

Odisha is to make necessary progress after validation and notification of SBB rules.

Bio-heritage sites

Odisha is to make necessary progress after validation and notification of SBB rules. However, 4 different sanctuaries (Satkosia, Lakhari, Kotagarh and Debrigarh) and coastal mangroves protection work is taken up under Orissa Forestry Sector Development Project programme which has biodiversity conservation as one of its objectives.

Mandaragiri: The first proposed BHS in Orissa

While Angul district is losing its eco-heritage & environmental sanctity due to heavy industrial & mining activities, residents of nine villages under the banner of Mandaragiri Surakshaya Manch, involved in forest protection since 1990, have been able to protect & conserve the Mandaragiri hills as a sprawling forest that houses many rare species of medicinal herbs, wild animals, insects, amphibians and reptiles. Respecting to people's conservation effort, the Angul Forest Division has recommended to State Biodiversity Board for tagging of heritage status to the site, the first of its kind in the state.

The local forest division, that supports VSSs in the area, took some initiatives for documenting the unique biodiversity of Mandargiri area. The concerned authority have planned to maintain PBRs upon completion of this documentation.

NEWS, an Angul-based NGO working on environmental conservation has played a pivotal role in the initiative to propose Mandaragiri as a bio-heritage site. Its founder-head and honorary wildlife warden of Angul forest division Mr. Prasanna Kumar Behera expected that the local BMC would be formed after official declaration this bio-heritage site. (Based on a report by Satyasundar Barik in <http://www.hindu.com/2010/08/16/stories/2010081654410300.htm>)

Issues with SBB:

As discussed (by the editor) with the Member Secretary of the Board, pending the final notification of the Rules has been the major hindrance in making the actual implementation of the programme activities possible, and the final notification is pending as concurrence from various departments is awaited.

Observation:

The case of OSBB suggests the wide gap between national policy and state-level implementation. By the time of e-publication of this report OSBB could have had only two meetings (despite the provision that there should be at least 4 meetings in a year), which shows the extremely low pace of progress.

BioIndia Biologicals, a company from Andhra Pradesh, had approached RCDC for procurement of lotus leaf and water lily in total compliance with the norms and procedures of the BDA, but since there were no BMCs formed in the state it could not become possible. It is worth mentioning that the company wanted not only full compliance of the BDA norms but also that the primary collectors should get the maximum profit from this business.

References:

1. FES(undated). *Biocultural Community Protocols: A Tool for Pastoralists to Secure Customary Rights to the Commons?*, Common Voices, Issue No.-2, pp. 16-18.
2. <http://www.nbaindia.org>
3. http://www.ddsindia.com/www/Biodiversity%20rules%20rally%20report_link%20MoEF.htm
4. <http://www.indiatogether.org/2005/may/env-biopiracy.htm>
5. http://en.wikipedia.org/wiki/Andhra_Pradesh#cite_note-0
6. http://en.wikipedia.org/wiki/Madhya_Pradesh
7. <http://en.wikipedia.org/wiki/Jharkhand>
8. <http://en.wikipedia.org/wiki/Orissa>
9. <http://ces.iisc.ernet.in/hpg/cesmg/indiabio.html>
10. <http://apbiodiversity.ap.nic.in/>
11. <http://www.jharkhandforest.com/biodiversity.html>
12. <http://mpsbb.nic.in/>
13. <http://www.orissa.gov.in/forest&environment/index.htm>

ANNEXURE

Annexure-I Officials consulted during the study

SN	States	Persons	Designation in SBB	Responsibilities
1	Andhra Pradesh	Dr. R. Hampaiiah Dr S.N Yadav Mr Srinivasa Mr S Gangadhar (Society for Management of Biodiversity)	Chairman Member Secy Deccan Dev Society BMC, Mehboobnagar	Drafting Rules, Various studies, Coordination with line departments, budgeting, team capacity building etc Mr S Gangadhar expressed his willingness to work in Odisha in forming BMCs
2	Madhya Pradesh	Mr D.P Tiwari Mr Nishith Bansole Prof K C Upadhyay Shri Arvind Kumar Mr. Abhilash Dubey	State Proj. Coord. MIS Specialist Member Secretary Manager Administ.	Managing SBB program from 2009-12 under UNDP-India SBB program in Madhya Pradesh
3	Jharkhand	Shri S K Sharma Saibal Kanti Dey Manish Kumar Dr. Mrs Hem Srivastav	Memb Secy/CCF-WL State Proj Coord MIS Specialist Member SBB (Non-off)	Managing SBB program from 2009-12 under UNDP-India SBB program in Madhya Pradesh
4	Odisha	Mr Sarat Panda Dr Ajay Parida	DFO (Ex-Expert SBB) Member (SBB)	Responsible for Drafting SBB Rules in Odisha

Annexure-II
PEOPLE'S BIODIVERSITY REGISTER FORMAT

This is a standard PBR (Plant Bio-Diversity Register) format developed by National Biodiversity Authority (NBA), being used by all states. All the BMCs are to maintain the local bio-resources in their area in this format. The Technical Support Groups (TSG) appointed by State, i.e. SBB are to train and handhold the BMCs to document data in this format.

Revised Format Dated
2/5/06

PEOPLE'S BIODIVERSITY REGISTER (PBR) FORMATS

1. Profile of the village

Name of village_____ Tehsil_____ District_____ Location Longitude_____/Latitude_____ Topography

Geology Climate Demography population_____ Male_____ Female_____ Tribe_____

2. Portfolio of biodiversity-based livelihoods

S. No.	Activities	Number of households/ User-Groups	Seasonality	User groups	
				Local	Outside
1	Agriculture and allied				
2	Animal Husbandry including fishery				
3	Forest and allied				
4	Artisans				
5	Other Services 1. shops related to biodiversity products				

3. Ecosystem Diversity

3.A. Classification of land types

S. No.	Details of types of eco-system <i>Eg. Aquatic/ forest/ grassland/terrestrial</i>	Categories/sub-types of landscape/ Waterscape elements (in local language)	Approximate area and number	Ownership	User group activities

3.B. Details of threatened Landscape/Waterscape elements

S. No.	Type/sub-type of <i>threatened</i> eco-system	Name in local language	Approximate area	User Group activities	Associated species	Trends (Changes over last 10 years)	Reasons

4. Species and genetic diversity

4.A. Domesticated biodiversity

4.A.1 Listing Agro-biodiversity

S. No.	Crop	Species	Scientific name	Variety	Germplasm /landrace	Approximate area sown	Cropping season & duration	Approximate production (per acre)	Uses and special feature
	Wheat Rice								

4.A.2 Details of Agricultural species/varieties/landraces highly threatened

S. No	Crop	Species	Scientific name	Variety	Character of Germ plasm /landrace	Preferr ed agro-climatic Zone	Sea son	Matu rity Dura tion	Product ion (Tonne)	Produc tivity (Kg/ hectare)	Use includin g medicin al uses	Trends over last 10 years	Reason s

4.A.3 Listing Livestock diversity

S. No.	Name of livestock	Local name of the species	Scientific name of the species	Breed	Non descript	Populatio n (no.)	Production	Services rendered	Population Status in the area, eg. Rare/ Endangered/ Threatened
	Cattle Buffalo Goat Sheep Pig Poultry Others								

4.A.4 Details of Livestock species highly threatened

S. No.	Name of livestock	Local name of the species	Scientific name of the species	Breed	Non descript	Population (no.)	Production	Services rendered	Population Status in the area, eg. Rare/ Endangered/Threatened
	Cattle Buffalo Goat Sheep Pig Poultry Fishes Others								

4. B. Wild biodiversity

4.B.1 Listing Floral diversity (Trees, Shrubs, Herbs, Tubers, Grasses, Climbers)

S.No.	Local name of the plant	species	Scientific name of the species	Parts used	Use	Production	Status eg. Rare/ Endangered/Threatened

4.B.2 Details of Wild plant species highly threatened

S.No.	Local name of the plant	species	Scientific name of the species	Associated landscape type/ sub-type	Parts used	Use	User group associated	Production	Trends over last 10 years	Reasons

4.B.3 Wild Faunal Diversity (Mammals, Reptiles, Amphibians, Bird, Fishes, Insects)

S.No.	Local name of species	Scientific name of the species	Population	Status eg. Rare/ Endangered/ Threatened

4.B.4 Details of Wild animal species highly threatened

S. No.	Local name of species	Scientific name	Associated landscape/waterscape type/sub-type and associated species	Current abundance (High/Medium/Low)	Trend over 10 years	Reasons

5. Biodiversity and culture

Festivals/customs/rituals that are related to or have significant bearing on biodiversity conservation

Ritual/ custom	Festival	Month	Description	Bio-resource used	Belief	Impact

Folklore/songs/idioms etc related with biodiversity

6. Knowledge and Knowledge resource persons

7. Management and management issues

SN	Name of Knowledgeable Individuals	Knowledge domain	Knowledge that be shared	Knowledge not hitherto known

Traditional management systems and institutions

Landscape Type/ Subtype Species or Land Race Varieties	Key Issues	Current Intervention (if any) and its Efficiency

Name _____

Signature & date _____

format [Form-1, Rule 17- Application Form for Access to/ Collections of Biological Resources for Commercial Utilization and Associate Traditional Knowledge]

Annexure-IV

Jharkhand SBB Annual Work Plan-2009-10 (India-UNDP Project)

India-UNDP Project					
"Strengthening Institutional Structures for Implementing the Biological Diversity Act"					
ANNUAL WORK PLAN - 2010					
TARGET	ACTIVITY RESULT	ACTIONS	ACTIVITY DETAILS OF MADHYA PRADESH	ACTIVITY DETAILS OF JHARKHAND	QUARTER / MONTH OF COMPLETION
1	2	3	4	5	6
<p>Target 1 for 2010 Institutional capacities of relevant national, State, and local Institutions enhanced for effective implementation of Biological Diversity Act.</p>	<p>Baseline studies and capacity assessment of National Biodiversity Authority, State Biodiversity Boards and local Biodiversity Management Committees (Where applicable) conducted</p>	<p>a. Initiate assessment and review of existing capacities of SBB's and BMC's in M.P and JHK to implement the BD Act.</p>	<p><u>CURRENT STATUS</u> Independent SBB has been set up in M.P. with full fledged Member Secretary and other office members. After launching of the UNDP project, the existing office space will not be sufficient, so search for new office space is being made. The details of furnishing of office, Mobile internet, Landline, LCD TV, running</p>	<p><u>CURRENT STATUS</u> The SBB is accommodated in the office of part-time Member Secretary The office space for the SPU has been arranged in Birsa Agricultural University at Ranchi The details for furnishing of SPU office, Mobile internet, Landline,</p>	

			cost of office are being worked out.	LCD TV, running cost of office are being firmed up.	
			ACTIVITY 1 Appointment of consultant (PMU) for Baseline study		Quarter 1
			ACTIVITY 2 Institutional Capacity building at national, state and local level		Quarter 1
			ACTIVITY 3 Training on Project Management. (Meant for the Capacity building of Project staff)		Quarter 1
			ACTIVITY 4 Completion and submission of Report by consultant		Quarter 2
			ACTIVITY 5 <i>Development, test run and implementation of Project Management software.</i>		Quarter 1

TARGET	ACTIVITY RESULT	ACTIONS	ACTIVITY DETAILS OF MADHYA PRADESH	ACTIVITY DETAILS OF JHARKHAND	QUARTER / MONTH OF COMPLETION
1	2	3	4	5	6
		b. Meetings and consultations with relevant line ministries and agencies to identity gaps and list actions to be taken to strengthen capacity.	ACTIVITY 1 Inventory of stake holders to be prepared from various relevant departments / institutions		Quarter 2
			ACTIVITY 2 Trainings : (8) 2 at Bhopal and 2 trainings in each district x 3 Districts= 6	ACTIVITY 2 Trainings: (6) 2 at Ranchi and 2 trainings in each district	Quarter 2

			Total = (2+6) = 8	x 2 districts= 4 Total = (2+4) =6	
		c. Review of existing frameworks and programmes on conservation and sustainable use of biological resources and the role of relevant institutions in decision making	To be carried out consultant – (baseline survey)		Quarter 2
		d. Consultation with State Biodiversity Boards and authorities of identified districts to plan and conceptualise a system for capacity building at the state and local levels.	ACTIVITY 1 Planning and Review Meeting at the District level one in each district Total - 3	ACTIVITY 1 Planning and Review Meeting at the District level one in each district Total - 2	Quarter 3

TARGET	ACTIVITY RESULT	ACTIONS	ACTIVITY DETAILS OF MADHYA PRADESH	ACTIVITY DETAILS OF JHARKHAND	QUARTER / MONTH OF COMPLETION
1	2	3	4	5	6
Target 2 for 2010 Enhanced understanding at National, State and local institutions for conservation (in-situ and ex-situ) of bio resources and ecosystems.	Preparatory documentation and trainings done on the basis of consultant report	a. Training and capacity building for documentation of land races, wild relatives, folk varieties, medicinal plants, breeds of domesticated animals, native fish species, heritage species, habitat, ecosystem and biodiversity heritage sites.	ACTIVITY 1		Quarter 1
			Appointment of consultant - training and capacity building (PMU)		
			ACTIVITY 2		Quarter 2
			Consultations with stake holders and consultants for the preparation of the formats and the process of documentation		
			ACTIVITY 3		Quarter 2
Submission of Report by Consultant					
ACTIVITY 4		Quarter 2 & 3			
Constitution of Biodiversity Management Committees - one each at village Panchayat level					
ACTIVITY 5		Quarter 2 & 3			
Constitution of Biodiversity Management Committees - one each at District and Block levels					
ACTIVITY 5		Quarter 2 & 3			
Constitution of Biodiversity Management Committees - one each at District and Block levels					

			<p>Training for documentation personnel. 1 meeting in Headquarter and One each in district (3) Total: 4 meetings</p>	<p>TY 5 Trainin g for docume ntation personn el. 1 meeting in Headqua rter and one each in district (2). Total: 3 meeting s</p>	Quarter 4
			<p>ACTIVITY 6 Preparation of three new PBRs</p>	<p>ACTIVI TY 6 Preparat ion of two PBRs</p>	Quarter 4
			<p>ACTIVITY 7 Capacity building of State Biodiversity Board, Biodiversity Management Committee & National Biodiversity Authority</p>		Quarter 4
		<p>b. Documentation of information pertaining to bio resources as elaborated in (a) above</p>	<p>ACTIVITY 1 To be carried out by consultant– (Documentation)</p>		Quarter 1
			<p>ACTIVITY 2 Preparation of guidelines by SBBs for granting permission to individuals to access bio-resources and Benefit sharing.</p>		Quarter 3
			<p>ACTIVITY 3 Identification of three examples for</p>	<p>ACTIVI TY 3 Identific ation of</p>	Quarter 4

			Access and Benefit Sharing.	two examples for Access and Benefit Sharing	
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TARGET	ACTIVITY RESULT	ACTIONS	ACTIVITY DETAILS OF MADHYA PRADESH	ACTIVITY DETAILS OF JHARKH AND	QUARTER / MONTH OF COMPLETION
1	2	3	4	5	6
		c. Documentation / inventory of local level conservation efforts, including vairs and hakims, and documentation of the role of women in conservation	ACTIVITY 1: To be carried out by consultant – (Documentation)		Quarter 1
			ACTIVITY 2: Identification and rewarding the biodiversity conservers in selected districts of both the states & successful case studies (update on respective website).		Quarter 3 & 4
		d. Inventory of local, national, MNCs level industries utilising bio resources.	To be carried out by consultant – (Documentation)		Quarter 2
		e. Inventory of bio resources which are being used for commercial purposes and their status	To be carried out by consultant – (Documentation)		Quarter 2
		f. Documentation and on Invasive Alien species and the areas invaded	To be carried out by consultant – (Documentation)		Quarter 2

		g. Documentation of Biodiversity Heritage sites	ACTIVITY 1: To be carried out by consultant – (Documentation)	Quarter 2	
			ACTIVITY 2: Identify one Biodiversity Heritage Site in each selected district.	Quarter 2	
		h. Training and exchange visits for capacity development of the SBBs and BMCs	ACTIVITY 1 2 visits will be organized at the state level involving the BMC members	Quarter 3	
TARGET 1	ACTIVITY RESULT 2	ACTIONS 3	ACTIVITY DETAILS OF MADHYA PRADESH 4	ACTIVITY DETAILS OF JHARKHAND 5	QUARTER / MONTH OF COMPLETION 6
Target 3 for 2010 : Knowledge sharing among national, state and local relevant institutions for effective implementation of BD Act.	Networks developed for awareness generation, documentation and literature development to enhance implementation of Biological Diversity Act.	1. Work shop for network of partners on programme planning including their capacity building and training.	ACTIVITY 1 Inventory of stake holders		Quarter 1
			ACTIVITY 2 Workshop 1 at headquarter, 1 at district level x 3 districts Total - 4	ACTIVITY 2 Workshop 1 at headquarter, 1 at district level x 2 districts Total – 3	Quarter 3
			Note: minimum no of participants – 40, Max – 60, documentation of the program through photos and press clippings, consider the important celebrations having relevance with Biodiversity.		
			ACTIVITY 3 : Enforcement of BD Act by capacity building of Forest Dept personnel	Quarter 4	
		2. Development of awareness materials for	ACTIVITY 1: DVD on Biodiversity of the State, Posters, Booklets, Pamphlets,	Quarter 3	

		different stakeholders in English and relevant languages.	Regular articles in dailies, Radio and TV programs	
		3. Launching of awareness campaigns on biodiversity conservation and sustainable use and implementation of BD Act to stakeholders at different levels.	<ul style="list-style-type: none"> • Mass media campaigns • One yatra per district • Two nature trails per district • Taluk wise conducting competitions (quiz program etc) for schools and colleges. • <i>Conducting awareness generation programs regarding Rare and Endangered Species</i> 	Quarter 2&3

Annexure-V

Members of State Biodiversity Boards in study states

❖ Andhra Pradesh SBB members:

- 1. Dr.R.Hampaiah, Chairman**

2. Principal Secretary to Government, Environment, Forest, Science & Technology Department, A.P. Secretariat, Hyderabad. (E.O. Member)

3. Principal Secretary to Government, Animal Husbandry & Fisheries Department, A.P. Secretariat, Hyderabad. (E.O. Member)

4. Principal Secretary to Government, Agriculture & Corporation Department, A.P. Secretariat, Hyderabad. (E.O. Member)

5. Director Integrated Coastal Marine Area Management.

6. Principal Chief Conservator of Forests (WL) & Chief Wildlife Warden, Andhra Pradesh, Hyderabad.

7. Chief Executive Officer Medicinal Plants & Aromatic Board, Hyderabad. (Expert Member)

8. Principal Scientist, National Bureau of Plant Genetic Resources, Regional Station, Rajendranagar, Hyderabad. (Expert Member)

9. Dr. Lalj Singh, Director, Habsiguda, (Uppal), Hyderabad. (Expert Member)

10. President, Deccan Development Society, Hyderabad. (Expert Member)

11. *Member Secretary, Andhra Pradesh State Biodiversity Board, Hyderabad (Chief Conservator of Forests)*

❖ **Madhya Pradesh SBB Members:**

1. Chief Secretary, Government of Madhya Pradesh	Chairman
2. Secretary, Biodiversity and Biotechnology Department	Ex-Officio Member
3. Agriculture Production Commissioner	Ex-Officio Member
4. PCCF, Government of Madhya Pradesh	Ex-Officio Member
5. Vice Chancellor, Jawaharlal Nehru Agriculture University	Ex-Officio Member
6. Sri M.N. Buch, E-4/17, Arora Colony, Bhopal,	Non Official Member
7. Sri H.S. Power, 208, Kanchanjanga Towers, Flat no- GH-18, Sector-56, Gurgaon, Haryana	Non Official Member
8. Prof K.C Upadhyaya, 24, Dakhampuram, Jawaharlal Nehru Agriculture University Campus, New Delhi	Non Official Member
9. Shri Indra Bahadur Singh, Ankur Enclave, Makronia Sagar, Madhya Pradesh	Non Official Member
10. Sri Srikant Jamindar, 26, Greater Rawla, Indore, Madhya Pradesh	Non Official Member

❖ **Jharkhand SBB Members:**

1. Principal Chief Conservator of Forests, Biodiversity Conservation & Chief Wildlife Warden, Jharkhand	Chairman
2. Representative of Secretary/Principal Secretary, Dept. of Agriculture, Jharkhand	Ex-Officio Member
3. Representative of Secretary/Principal Secretary, Dept. of Science & Technology, Jharkhand	Ex-Officio Member
4. Representative of Secretary/Principal Secretary, Dept. of Health, Jharkhand	Ex-Officio Member
5. Tribal Welfare Commissioner, Jharkhand, Ranchi	Ex-Officio Member
6. Representative of Secretary/Principal Secretary, Dept. of Forests and Environment, Jharkhand, Ranchi	Ex-Officio Member
7. Chief Conservator of Forest, Wildlife & Biodiversity, Jharkhand, Ranchi	Member Secretary
8. Dr. D. S. Srivastava, Prof. In-charge, G.L. College, Daltonganj	Non Official Member
9. Shri O. P. Lal, Retd. Forest Officer, C-186, Vidhyalaya Marg, Ashok Nagar, Ranchi	Non Official Member
10. Dr. (Mrs.) Hem Srivastava, Prof. Colony, Chiragora, Dhanbad	Non Official Member
11. Dr. B. N. Mahato, Qtr. No.- 2/209, ST-3, Sector-II C, Bokaro	Non Official Member

12. Shri Peter Paul Hembrum, Vill+PO – Maheshmunda, Dist - Giridih	Non Official Member
❖ Odisha SBB Members:	
1. Secretary, Forest & Environment Department, Government of Odisha	Chairman
2. Secretary, Agriculture Department, GoO	Ex-Officio Member
3. Secretary, Fisheries and Animal Resources Dev Department	Ex-Officio Member
4. PCCF, Odisha	Ex-Officio Member
5. Special Secretary, Forest and Environment Department	Member Secretary
6. Prof Priyambada Mahanty, VC, Sambalpur University	Non Official Member
7. Prof K Ganeshiah, University of Agri Sciences, Bangalore	Non Official Member
8. Prof G B Chaini, Biotechnology/ Zoology Dept, Utkal University	Non Official Member
9. Dr Ajay Parida, Senior Scientist, MSSRF, Chennai	Non Official member
10. Er. Sarat Mishra (Retd Chief Engineer), Subject Specialist- Orchids Orchids	Non Official Member

Annexure-VI

Proceedings of the Regional Consultation on

Biodiversity Conservation & Bioresource Governance

RCDC has been pursuing a bioresource governance programme in 5 GPs of 4 districts of Odisha. The programme aims at developing five model panchayats in natural resource governance in general and bioresource governance in particular.

The 73rd amendment in the Constitution of India provides for transfer of power to the PRIs. Accordingly, different states have differently vested a part of these powers to the GPs. The Biodiversity Act, 2002 followed by its Rules of 2004 provides for an additional responsibility, i.e. biodiversity conservation by the PRIs (and ULBs) primarily through the Biodiversity Management Committees (BMCs) at GP level. A study commissioned by RCDC in 4 states of India (Odisha, Jharkhand, Madhya Pradesh & Andhra Pradesh) revealed the status of actual implementation of this provision. A regional consultation was organized at Bhubaneswar on 28th December 2010 in Hotel New Marrion to share these findings and also to provide an opportunity to representatives from concerned states to share their own observations and experiences. This programme was attended by large number (more than 90) of PRI representatives and community representatives alongwith representatives from

PRERAK, an NGO of Chhatisgarh. The Chief Guest was **Dr.R.Hampaiah, Chairman, Andhra Pradesh State Biodiversity Board.**



Bikash Rath giving welcome address

rich bioresource/natural resource, but still we are underdeveloped/poor because of failure in taking optimum advantage of these resources. On the other hand, outsiders are taking maximum advantage of our resources. For instance, an American company takes *Aloe vera* from us at Rs.5 to Rs.6 per kg, but sells its extract at Rs.2000/kg. Star turtle is exported to be sold at price of \$200/turtle. A number of such



Dr. Hampaiah giving his inaugural address

examples were cited by Dr. Hampaiah from the group of flowers, fruits, fishes, and forest products, etc. to convey the message that since our resources are so valuable, we need to keep a vigil on their exploitation so that biopiracy can be stopped and our people can get the due benefit from these resources while ensuring the sustainability. The Biodiversity Board has to ensure this, and locally the Biodiversity Management Committees have to implement this. Giving an example of successful intervention of the Biodiversity Board and the BMC, he mentioned how the Monsanto company, which sourced the BT bacteria from an area in Andhra Pradesh and established a Rs.30,000 crore market for BT Cotton & BT Brinjal, was ultimately forced by the local biodiversity authorities to pay the compensation/royalty. Since Odisha has a rich biodiversity, the Odisha State Biodiversity Board should therefore be very active for conservation and sustainable utilization of the same, he advised.

While the Biological Diversity Act of 2002 mandates for interventions for biodiversity conservation at national-, state-, and local level, it is the local level intervention (BMC) that is most important, he said. The Act helps to prevent unauthorized patenting of our traditional knowledge-based clues. So far few people have been caught in India for biopiracy, one while collecting butterflies in the Himalayan area and another while buying tarantula insects in Andhra. In the first case, the convict

was released after the Prime Minister's office reportedly intervened on a plea that his was the 'first' such case reported after the promulgation of the Act, and in the second case escaped by bribing the people around him.

Bikash Rath informed the House that the State Biodiversity Board in Odisha had formulated draft Biodiversity Rules which were made public for comments, and that RCDC had submitted to the government specific suggestions on the same (so as to make it committed to the rights of the local communities). He further said that the Rules were yet to be finally notified.



Mr. Prasanna Behera

In this context Mr. Prasanna Behera of Nature, Environment & Wildlife Society, Angul said that it was only after his organization proposed to the state government to declare the Mandaragiri hill as a bioheritage site that the State Biodiversity Board was formed in Odisha to address such issues³.

Mr. Sriram Gangadhar of Bio-India Biologicals, Hyderabad, who was introduced by Dr. Hampaiah as a trader who wants to develop his business while complying with the Biodiversity Act, and who has received permission from the State Biodiversity Board as well as the local BMC to procure & export neem leaves (extract) to Japan while paying due royalty to the BMC and fair price to the primary collectors, shared with the House that he would be interested in some other products too. Like, he said, he would be ready to procure dry lotus leaves (supposed to be used for cosmetic purpose) from Odisha. When asked about the procurement price of such leaves, he said since he is yet to start this trade hence he is not sure of the price, but he suggested that people should first see what is the cost of labour in getting a kg of dry lotus leaves, and accordingly they should decide the fair price. He further suggested that since sustainability is also our responsibility hence not all the villages should go for a single item, rather if one village collects neem leaves then another may collect lotus leaves.



Mr. Sriram Gangadhar
(photo courtesy: Bio-India Biologicals)

There was a concern expressed in the House if the marketing opportunity would eventually lead to unsustainable exploitation of bioresources. However, Bikash Rath clarified that the first priority of Biodiversity Act and its implementing agencies is

³ This claim is yet to be confirmed from independent sources.

conservation, and commercial utilization is permissible only in cases where sustainability has been ensured. He cited the example of how commercialization of sal seed collection has had no significant impact on the regeneration of sal forests.

As of the responsibility of the Panchayats to form BMCs and manage biodiversity, a Sarpanch from Deogarh district expressed his helplessness regarding a situation in his area where a trader assured the local people of good prices of *kali haldi*, but when the produce was actually harvested the trader did not turn up and people have been seeking now the Sarpanch's intervention in the matter to get justice. The point was, while Panchayats and Sarpanchs in particular are already preoccupied with so many responsibilities, this biodiversity management will but add to their difficulties⁴.

In this context while Mr. Bikash Rath said it is true that the PRIs have been entrusted with so many responsibilities without adequate infrastructure and resources, Dr. Hampaiiah said that the National Biodiversity Authority has a provision for giving a grant of Rs.50,000/- to every panchayat for the purpose of biodiversity management. He also said that if the state government provides a matching grant then the GPs would be financially strengthened to implement biodiversity conservation.

Mr. Nigamnanda Swain, the consultant who had done a study on behalf of RCDC on the status of implementation of the Biological Diversity Act in 4 states, presented his findings. He said that while Madhya Pradesh was the first state to follow the Act, there has been hardly any known progress. Jharkhand has implemented the Act only on a pilot basis in two Blocks: Latehar and Hazaribag. Usually in all the states the Biodiversity Boards are mostly managed by the Chairperson and the Secretary, and although the Boards receive considerable grants from the government they hardly make proper utilization of the same. The Boards are also not much transparent regarding their activities and fund utilization, and although they take up studies these are hardly publicized. In Andhra Pradesh, Madhya Pradesh, and Jharkhand only few BMCs have actually been formed or functional. However, the Andhra Pradesh Biodiversity Board is more active and transparent than other three states. For instance, it has shared that it has received Rs.115 lakhs and has allocated Rs.60 lakhs for 2010-11 for various activities. Further, it has also proposed an additional budget of Rs.142 lakhs⁵.

⁴ The matter was reported locally to the concerned government authorities following which an enquiry has been ordered, as reported in the media.

⁵ Although RCDC's study revealed state-level discrepancies in the activities of Biodiversity Boards, *Down to Earth* quoted CAG report which suggested that even at the central level, i.e. with the National Biodiversity Authority things were not so proper. NBA reportedly allowed commercial exploitation biological resources with very little monitoring, failed to notify many desired regulations, and did not even draw up lists of endangered medicinal plants, not to speak of initiatives for their conservation. Similarly, NBA's efforts in identifying threatened, endangered and endemic species were confined to only seven states out of 28 (Source: <http://www.downtoearth.org.in/node/2795>). However, Bikash Rath personally feels that it would be untrue to

This was followed by a sharing from Ms. Hemalatta, Project Coordinator, Kovel Foundation, Vishakhapatanam who mentioned how her organization has been active in the conservation of the species *Sterculia urens*, which has otherwise been endangered because of its gum collection in the unsustainable manner. So far Kovel Foundation has planted 15000 such trees.

Mr.J.Demudu, the Sarpanch of Pedakota GP(Vishakhapatanam district) where Kovel Foundation works, said that there was no BMC in his GP. He mentioned how the rich forests 25 years back in his area gradually got depleted due to unsustainable exploitation, and how things have improved now after the intervention of Kovel Foundation. He suggested that the State Biodiversity Board should first take one or two GPs as models in the implementation of the Biodiversity Act, and then replicate it in other areas.

The consultation ended with a vote of thanks by Bikash Rath.

Annexure-VII

Proceedings of the State-level Consultation on Biodiversity Conservation & Bioresource Governance

The 73rd amendment in the Indian Constitution provides for transfer of certain power to the PRIs whereas the 74th amendment has a similar provision for urban local bodies(ULBs). However, the states have actually transferred only a part of these powers so far. Accordingly, the PRIs now have some control over the local programmes of agriculture-, fishery-, and animal resource development departments.

The Biodiversity Act, 2002 added a new dimension to this decentralization process. It provided for a role of PRIs and ULBs in the biodiversity conservation & management at local level. These institutions are supposed to have a BMC(Biodiversity Management Committee) at their own level which in turn is required to prepare the local biodiversity register.

However, this provision in the Biodiversity Act can be implemented at the state level after the notification of State Biodiversity Rules. Accordingly, in some states like MP and Andhra Pradesh the state Rules have been notified and BMCs have been formed. In Odisha, the draft Biodiversity Rule was but recently notified for public comments, and it is yet to be finally notified. Hence, BMCs are yet to be formed in Odisha.

conclude that NBA was totally lax in monitoring, because he knows how NBA made repeated follow ups in a particular case in Odisha.

A study commissioned by RCDC has suggested that among the 4 states of MP, Chhatisgarh, Jharkhand, and Andhra Pradesh some remarkable activism is seen in Andhra Pradesh. For instance, the first receipt of fees of Rs.10,000/- for access of biological material (Indian Senaga *Glinus oppositifolius* Linn) by Bio-India Biological (BIB) Corporation, Nacharam, Hyderabad is a remarkable achievement. In this process the BMC of Gavinivaripalem in Prakasham district of Andhra Pradesh, alongwith other 5 BMCs is involved. Similarly, BMC Mahanandi has resolved to charge an accession fee of Rs. 300 lakhs on multinational seed company (Monsanto) for alleged Biopiracy of the bacteria, *Bacillus thurengiensis* (BT cotton).

In other states some PBR(people's biodiversity registers) have been prepared under BMCs(in Odisha, it has been prepared sporadically through some NGOs), but the real dynamism at PRI/ULB level regarding biodiversity conservation is yet to be seen except but few cases.

Earlier, natural resource governance/management was a broad concept; and PRIs do not normally bother for GM crops/animals, etc.. However, both PRIs & ULBs are now required to take care that development of agriculture, animal resource, fishery, etc. should not be at the cost of local biodiversity. On the other hand, Agricultural & allied research institutions/departments should also see to it that promotion or propagation of a new or advanced species/variety by them must not threaten the local biodiversity in any way.

RCDC, which is pursuing a bioresource governance programme in some parts of the KBK districts of Odisha, organized a state-level consultation on 29th December 2010 at Hotel New Marrion to discuss these issues with an objective to develop bioresources without threatening the biodiversity. More than 100 participants from various parts of the state attended this consultation.

The inaugural session was chaired by Dr.S.N.Patro, Working President of Orissa Environmental Society. Bikash Rath of RCDC welcomed the participants and shared in brief the objectives of this programme. He said that bioresource governance, unlike natural resource governance, may incorporate some unnatural elements(like genetically modified organisms) and requires a more sensible approach since living organisms have low tolerance limit that aboitic resources. However, with the responsibility of biodiversity conservation, the bioresource governance has to exercise some control in its activities/approaches(like, going for GM varieties).

Dr.S.N.Patro described in his address how the sequence of events starting from 1992 Convention of Biodiversity to the 2006 National Environment Policy finally led to the protection of intellectual property rights, and facilitated conservation as well as equitable distribution of benefits accrued from bioresources. He said, 50 years ago it took 90 years for extinction of a species whereas now every hour three species get extinct. Citing the example of Royal Bengal Tiger, he said in 1901 India had a human population of 32 crore as against the tiger population of about 40,000, but 110 years later the human population increased to 130 crores while the tiger population decreased to only 1400. He stressed on the



Dr. S.N.Patro

fact that forest is a rich habitat of biodiversity which a plantation can't replace, and now that bioresources are under extreme pressure and so many species are already extinct, we need to take urgent measures so that these resources can be properly conserved. Avoid, Adopt, Endure, and Resilience- these are the four principles that help conserve the bioresources, he said. His presentation displayed the list of endangered & vulnerable plants in the state(annexure-1).

Inaugurating the event jointly with Sri Purnachandra Sahu(representing forest



Sri Aravind Behera, IAS delivering his inaugural address

protecting communities), Dr. S.N. Patro (representing the scientists), Sri Chakradhara Pruseth(representing the PRI members), and Smt. Kunti Kisku(representing women), **Sri Aravind Behera, IAS, chairman, State Biodiversity Board, Odisha and Principal Secretary, Environment & Forest Department, Odisha** said that we need urgent action to conserve our biodiversity since it is too late. Unless the PRIs and ULBs understand this and their

development activities do not comply with biodiversity conservation, then it would lead to various problems, he said. Citing the example of some initiatives already taken by the Environment & Forest Department in Odisha, he mentioned the establishment of Wetlands Authority which would look after the conservation of wetlands in the state. Moreover, he himself has advised the Biodiversity Board to prepare a checklist of Do's & Don'ts that could help the PRIs/ULBs understand which activities would not be in conformity with biodiversity conservation, and hence should be avoided. The House was delightfully touched when Sri Behera said that he felt this programme as his own(departmental), and had come to express his gratitude for such an initiative.

Sri Behera further said that whereas the government has resources, its capacity is limited which is why without cooperation of civil society government programs can't be fully successful. The State Biodiversity Board has been constituted, but much of the work is yet to be accomplished. Mere notification for BMCs will not be enough, and we need to make them aware of their responsibilities, he said. There are 314 Blocks in the state with about 6000 GPs, and through GP-level BMCs it would be easier to influence biodiversity conservation activities at grassroots level, he expressed hope.

He opined that while we need to increase production through another green resolution, this should be in conformity with biodiversity conservation. We shall have to bring back the extinct species like vultures, he said.

Sri Bikash Rath thanked Sri Behera for sparing some time for this programme despite his busy schedule, and called for immediate initiatives so as to make the State Biodiversity Board effective in safeguarding the interest of the state & its people. He took this opportunity to draw the attention of Sri Behera regarding how the pro-people JFM resolution of 1996 remains unimplemented yet, and also how the pioneering community forestry initiatives have been ignored in the state although countries like Bulgaria and Nepal have made specific legal provisions so as to secure the tenurial rights of community forestry groups because of their valuable contribution in conserving the environment. He urged the Forest Department of Odisha to revise the 2008 JFM policy so as to give ownership rights to the communities in the forests they protect.

The thematic session began with a presentation by Dr.R.K.Rath, Dean, College of Fishery(OUAT), Rangeilunda. He mentioned that there are about 2200 varieties of fish in India, and geo-climatic variations affect the habitat conditions which is why the species found in the Himalayan region differ from those of the plains, and seas. High rate of catching and adverse impact on habitat has led to significant reduction in the population of some varieties like *hilsa* and *chittal*. On the other hand, introduction of common carp(*Cyprinus carpio*) species in the waters of Dal lake in Kashmir and Loktak lake in Manipur led to significant loss in the population of the local varieties(*Schizothorax* in case of Dal lake and *Osteobrama belangeri* in case of Loktak lake) there because the common carps grow faster and are able to dominate the local variety, he explained.



Dr.R.K.Rath

He clarified that **genetic upgradation, that takes place between the same species, is different from genetic contamination that takes place between different species. It is this genetic upgradation or selective breeding that is required for fishery development which does not pose a threat to biodiversity.** If exotic species are to be cultured, then that should be in confined water and not in natural flows because in case of latter the risk of contamination would be higher.

Replying to a query as to how exotic fishes are being introduced into culture fishery in parts of Odisha, and what is the risk in that, Dr. Rath said that Silver carp, Grass carp, and Common carp have been introduced in certain cases which work as complimentary to the indigenous varieties, but since there is little chance of inbreeding between them in confined water, hence they are not supposed to be risky though the chance of inbreeding can't be totally denied in the long run. He further said that there are 18 exotic fish varieties in India, and not all exotic varieties are entertained. Like, the Thai *magur* has been banned because of its voracious & carnivorous tendencies.



Dr. Damodar Satapathy

Dr.Damodar Satapathy, who was a member of the Committee formed to prepare Biodiversity Action Plan, had some critical observations on fishery activities in India/Odisha. He said that our fishery activities are rarely positive(like, brood stock

development through selective breeding up to F₁, F₂ & F₃⁶ generations of offspring), sometimes neutral (like, modernization of existing fishery harbors and fish-landing centres), and usually negative so far their conformity with biodiversity conservation is concerned. The bold approaches for development often tend to ignore the sensitive/finer aspects, and hence shrimp farming is causing pollution, enrichment of reservoirs through supplementary stocking and auto-stocking (inbreeding) is causing genetic erosion, and removal of weeds & carnivore fish while developing swamps & water-logged areas is causing loss of micro-habitat as well as loss of local species. Optimization of production, and not maximization should be our objective. He further said that fishes by nature are territorial, and hence that species is suitable for farming/culture which is found naturally in large quantities in a particular area.

The expert panel on animal resource development was represented by Dr. P.K.Rao, Professor & Head, Department of Animal Biology & Genetics, College of Veterinary Sciences & Animal Husbandry, OUAT, Bhubaneswar and Dr.R.C.Mohanty, a research scholar in the same department. Dr. Mohanty first cited an interesting example of how the elements



Dr. R.C.Mohanty

of a particular ecosystem are interlinked. There is a special variety of buffalo in the Chilika area which can eat underwater vegetation in the lake. Whereas only cow's milk is used in the temple of Lord Jagannath, curd prepared from this buffalo's milk is also offered to the Lord since legend has it that during Kanchi war Lord Jagannath and Lord Balabhadra drank this curd from the hands of Manika gauduni, a village woman of Manika Patana near Chilika. This curd is specially prepared in bamboo baskets, and is very thick which helps it come out in slices. When a herd of this buffalo swims in the lake to reach another island, their dung dropped in the lake water becomes a good source of nutrients for the shrimps.

Some special breeds like the Hassili cock of Mayurbhanj are important elements of veterinary biodiversity. To preserve their distinct identity, artificial insemination is not permissible in such recognized breeds. So far in Odisha only few indigenous breeds have been registered. These are as under:

1. Cows: Binjarapuri, Motu, Ghumusari, and Khariari
2. Buffalo: Chilika buffalo

Attempts are being made to register also the Kalahandi buffalo, but breed recognition is a complex process and takes a lot of time, Dr.Mohanty said in response to a query by Bikash Rath as to what is being done to preserve these breeds.

Eminent rice expert and former Joint Director of Central Rice Research Institute, Cuttack Dr.



Dr.J.K.Roy

⁶ Refers to first, second, and third generations of breeding of a particular species so as to monitor the hereditary changes (if any, like changes in disease resistance capacity).

Jafran Keshari Roy said that whereas biodiversity is species diversity, genetic diversity within a single species/crop can also be seen. Rice is a good example of rich genetic diversity among the crops. There are about 80,000 varieties of rice cultivated in the world. Odisha's Jeypur tract is the second centre of origin of rice. These centres of origin have the maximum diversity.

Odisha had about 20000 indigenous varieties of rice cultivated, but now it has been reduced to 5000/6000 or less. This is because high yielding varieties are increasingly becoming adopted by farmers. Out of the total paddy area of 44 lakh hectares in the state, only about 11 lakh hectares are under local varieties. Local varieties are usually confined to upland areas, or unfavourable low lands/unirrigated areas. However, local varieties have certain distinguished/remarkable advantages. For instance, general rice contains only 4 ppm iron whereas rice from *balunga dhana*⁷ contains as high as 24 ppm iron. It is for this reason that in China & Japan, the iron-rich variety is mixed in 5% proportion with general rice.

Dr. Roy said that whereas the growth rate of other sectors are relatively high, that of agriculture sector is only 2% though the 7th Plan target is 4%. Therefore new technologies are being introduced to accelerate the growth, but this has threatened the biodiversity. Piracy has added to the trouble. Whereas genetic upgradation is to be done on exchange basis recognizing the original suppliers, piracy doesn't recognize the original suppliers who are deprived of the benefit of profit sharing. Dr. Roy said that many of Odisha's indigenous varieties have been supplied to Philippines(International Rice Research Institute) without recognizing the original source. The concept of **farmers' participatory breeding** therefore essentially stresses on the fact that the original supplier(farmer) of the indigenous variety must get the benefit of profit sharing.

Odisha's *dhalaputia* rice variety is flood resistant. Through pure line selection, using its flood-resistance gene, Sub-1 lines have been developed at IRRI, Philippines, said Dr. Roy.

He expressed concern about the indigenous farmers losing their self-reliance in seed production. Local farmers are fast adopting hybrid varieties, but these do not yield seed and hence the farmer has to depend on the company to procure the same. This is how MNCs are capturing the seed industry, making the agricultural occupation more & more dependent on them. Explaining the difference between a grain and a seed, Dr. Roy said that while a grain may or may not be viable(for germination), a seed must have this viability. Replying to a query on certified seed, he clarified that the nucleus breed is the purest form of seed followed by the breeder seed which also is 100% pure, but foundation seed is 98% pure whereas certified seed is 95% pure(purity here implying to the capacity of germination).

He then spoke on the terminator gene. High yield variety was followed by further developed genetically-modified(GM) variety, which in turn was followed by the development of varieties having terminator genes. Terminator genes totally eliminate

⁷ Paddy growing on its own without cultivation. Its presence in the field threatens paddy cultivation, and hence farmers uproot it. Interestingly, the seers(*rishis*) of ancient India used to eat this balunga rice and hence it is also called *rishi dhana*. (Source: Purnachandra Bhashakosha)

the scope of production of seeds though there would be flowers & fruits. Such a gene was tried in cotton in the US, but the experiment was stopped because of its high controversy.

Referring to BT brinjal, he said that it was not a genetic exchange between two varieties of brinjal; rather the gene extracted from the BT bacteria was inserted into brinjal which is why it became a matter of concern⁸.

Dr. Roy also referred to the medicinal varieties of rice⁹. He further mentioned the indigenous *kalamulia dhana* that is used to remove wild rice with non-pigmented base from the field even at early stage of the crop. Wild rices are big problems particularly in tribal areas, and experts like Dr. Roy recommend use of *kalamulia* rice varieties as a solution to this problem.

The final presentation was made by Sri Biswanath Hota, retired forest officer and an expert on medicinal plants. He demonstrated many species of threatened medicinal plants in the state, and explained on *in situ* and *ex situ* conservation approaches. Showing the list of 10 hot spots of medicinal plants in the



Sri B.N.Hota

state(vide annexure-2), he said that out of the 41 varieties of threatened medicinal plants in Odisha 14 varieties have been endangered because of the unsustainable extraction of their bark. Of them the Ashoka tree, which is critically endangered, is found in maximum concentration in the Dhanali-Barbara forest area. *Lodha(Symplocos racemosa)* is also critically endangered.

The preferable variety of *rasna(Blepharispermum subsessile*, an endangered species) is found in Amarkot & Gurudangar forest areas of Khariar. *Bidanga*(whose substitute *baibidang* is relatively more available) is found in Shimilipal and Karlapat forests.

Suggesting the ways of conserving and sustainably extracting the medicinal plants, Sri Hota said that Ashok being Odisha's state flower, we need to plant this tree in each house. We should pluck only mature leaves of *gudmari* since only these are medicinally suitable. He referred to the findings of studies done at Tropical Forest Research Institute, and said that *satabari* can regenerate itself if we leave at least 6 of its roots, and bark should not be extracted from a tree till it attains a girth of 90 cm.

Many of the participants, especially ladies took special interest in Sri Hota's presentation and asked him various questions. One of the narrations of Sri Hota in fact answered a question asked during some earlier presentation, i.e. why is *araguna* plant(which is being unsustainably extracted, as reported from Nayagarh district)

⁸ In January 2011 findings of a study suggested that BT brinjal can damage liver, and hit immunity (<http://indiatoday.intoday.in/site/Story/126821/mail-today-stories/bt-brinjal-can-damage-liver-&-hit-immunity-of-a-human-being..html>).

⁹ Rice varieties like *Alcha*, *Karnhi* (local varieties of Madhya Pradesh) are used for cure of some child diseases. Deep-red rices(mainly grown in deep water rice areas) have high iron content and used at the time of pregnancy.(Source: Dr. J.K.Roy)

used. He said that grains resembling that of sago are produced from the processing of the trunk of this plant(*Cycas circinalis*)¹⁰.

The programme ended with a vote of thanks from Bikash Rath.

Annexure-1

List of endangered & vulnerable plant species

(as presented by Dr. S.N.Patro)

Endangered plants

¹Herb, ²Shrub, ³Climber, ⁴Tree

- *Gloriosa superba* (Ognisikha/ Dasahara Phula/ Pancha Angulia)¹
- *Blepharispermum subsessile* (Rasna-Jhadi)²
- *Rauvolfia serpentina* (Patala Garuda/ Sarpagandha)²
- *Uraria picta* (Ishwarajata)²
- *Mucuna gigantea* (Ghoda Baidanga)³
- *Piper longum* (Pippali)³
- *Cordia macleodii* (Baurlo/ Boralo/ Ghanti/ Boet)⁴
- *Oroxylum indicum* (Phenphana/ Bhalu-sakti)⁴
- *Pterocarpus marsupium* (Piasal/ Bija)⁴
- *Stereospermum chelonoides* (Pamphunia/ Parudi/ Patuli/ Padal)⁴
- *Xylocarpus granatum* (Sisumar/ Susamber)

Vulnerable plants

Herbs¹; Shrubs & Stragglers²; Climbers & Lianes³

- *Hedychium coronarium* (Rama Kedar)¹
- *Thalictrum foliolosum* (Bharda)¹
- *Caesalpinia digyna* (Gilo/ Tari)²
- *Embelia tsjeriam-cottam* (Baibedang/ Nuninunika/ Nununia)²
- *Gardenia gummifera* (Gurudu/ Bhuronkuli)²
- *Celastrus paniculata* (Pengu/ Pengumal/ Katta Pengu)³
- *Embelia ribes* (Baibedanga)³
- *Gnetum ula* (Lolari/ Galio/ Mirig-lendi/ Ludijango)³
- *Operculina turpethum* (Dudholomo)³
- *Paederia foetida* (Prasaruni/ Gandhali)³
- *Pueraria tuberosa* (Bhui-kakharu Patal kumra)³
- *Scindapsus officinalis* (Gajapipali Girudhuni)³
- *Stemona tuberosa* (Koelakand/ Kelya kanda)

¹⁰ The sago palm(*Metroxylon sago*)'s trunk is processed to yield a starch that is converted into granular form known as sago. What is produced from a completely unrelated species, *Cycas circinalis* seems to be a substitute for the same, for adulteration purpose. The Cycad tree has poisonous properties, and hence sago substitutes produced from *Cycas circinalis* and *Cycas revoluta*(<http://en.wikipedia.org/wiki/Sago>; http://en.wikipedia.org/wiki/Cycas_revoluta) should be prepared after proper processing to remove the toxicity. It may be mentioned here that the primary use of *Cycas circinalis* has been for ornamental purpose, and its leaves are used for decoration.

Annexure-2
List of medicinal plant hotspots in Odisha
(as presented by Sri Biswanath Hota)

FOREST	DISTRICT
Similipal	Mayurbhanj
Gandhamardan	Bargarh & Bolangir
Malyagiri	Angul
Mahendragiri	Gajapati
Niyamgiri	Kalahandi
Barbara-Dhuanali	Khurdha
Bhitarkanika	Kendrapada
Kothagada	Kandhamal
Gurudangar & Patdharha	Nuapada
Kapilash	Dhenkanal

Annexure-VIII

Draft Orissa State Biodiversity Rules

In exercise of the powers conferred by Sub-section (1) of Section 63 of the Biological Diversity Act, 2002 (No. 18 of 2003), the State Government hereby makes the following Rules, namely:-

RULES

1) **Short title and commencement:**

- (1) These Rules may be called Orissa Biological Diversity Rules, 2010.
- (2) They shall come into force on the date of their publication in the Orissa Gazette.

2) **Definitions:** In these Rules, unless the context otherwise requires -

- a) "Act" means the Biological Diversity Act, 2002 (No. 18 of 2003).
- b) "Authority" means the National Biodiversity Authority established under Sub section (1) of Section 8 of the Act.
- c) "Board" means the Orissa Biodiversity Board established under Section 22 of the Act;
- d) "Committee" means Biodiversity Management Committee established by the local bodies under Section 41 of the Act.
- e) "Chairperson" means the Chairperson of the Orissa State Biodiversity Board
- f) "Fee" means any fee stipulated in these Rules.
- g) "Form" means form appended to these Rules.
- h) "State Government" means the Government of Orissa.
- i) "Member" means member of the National Biodiversity Authority or Orissa Biodiversity Board and includes the chairperson as the case may be there-of.
- j) "Section" means Section of the Act.
- k) "Member Secretary" means the Member Secretary of the Board.
- l) Words and expressions used but not defined in these Rules and defined in the Act shall have the same meaning respectively assigned to them in the Act.
- m) 'Year' means the financial year commencing on the 1st day of April.

3. **Manner of Selection and appointment of the Chairperson:**

- 1) The Chairperson of the Board shall be Secretary to Government in Forest & Environment Department or an eminent person having adequate knowledge and experience in the conservation and sustainable use of Biodiversity and in matters relating to the equitable sharing of the benefits.
- 2) The Chairperson of the Board shall be appointed by the State Government.

4. **Term of Office of the Chairperson:**

- (1) The Chairperson of the Board shall hold the office for a term of three years and shall be eligible for re-appointment, provided that no Chairperson shall hold office beyond the age of 65 years.

- (2) The Chairperson may resign from his office by giving at least one month notice in writing to the State Government.
 - (3) Notwithstanding any other provision of these Rules, continuance of the Chairperson in the office shall be at the pleasure of the State Government.
- 5. Pay and Allowances of the Chairperson:**
The Chairperson shall be entitled to such salary, allowances, leave, pension, provident fund, house and other perquisites, as may be determined by the State Government from time to time.
- 6. Nomination and Term of Office and Allowances of Non-official Member:**
- (1) Five non-official members from amongst the experts in matters relating to conservation of biological diversity, sustainable use of biological resources and equitable sharing of benefits arising out of the use of biological resources shall be nominated by the State Government.
 - (2) The non-official Member of the Board shall hold the office for a term not exceeding three years at a time from the date of his nomination.
 - (3) The non-official Member shall be entitled to traveling expenses, daily allowance and to such other allowances, as may be fixed by the State Government for attending the meeting(s) of the Board.
- 7. Filling up of vacancies of non-official member:**
- (1) A non-official member of the Board may resign from his office at any time by giving in writing under his hand addressed to the State Government and the seat of that member in the Board shall become vacant.
 - (2) A casual vacancy in the Board shall be filled up by a fresh nomination and the person nominated to fill the vacancy shall hold office only for the remainder of the term of the member, in whose place he was nominated.
- 8. Removal of the Members of the Board:**
No Member of the Board shall be removed from the office on any grounds specified in Section 11 of the Act, without due and proper enquiry by an officer not below the rank of Secretary to Government duly appointed by the State Government for the purpose and without giving a reasonable opportunity to the member of being heard.
- 9. Appointment of the Ex-officio Members:**
Five Ex-officio members shall be appointed from the following departments/ organizations of the State Government as long as they hold their respective office:
- (1) Secretary Forest & Environment
 - (2) Secretary, Agriculture.
 - (3) Secretary, F.A.R.D.
 - (4) Principal Chief Conservator of Forests
 - (5) Principal Chief Conservator of Forests (WL)
- 10. Head office of the Board:** The Head Office of the Board shall be at Bhubaneswar.

11. Member Secretary of the Board:

- (1) The Member Secretary shall be appointed by the State Government. His terms and conditions of appointment shall be determined by the State Government.
- (2) The Member Secretary shall be responsible for day-to-day functioning of the Board, management of funds and implementation of various activities of the programme under the guidance of the Chairperson of the Board.
- (3) All orders or instructions to be issued by the Board shall be under the signature of the Member Secretary or of any other officer authorized in this behalf by the Board.
- (4) The Member Secretary either himself or through an officer authorized for the purpose may sanction and disburse all payments against the approved budget.
- (5) The Member Secretary shall have powers to give administrative sanctions to the estimates included in the budget of the Board
- (6) The Member Secretary shall be in charge of all the confidential papers of the Board and shall be responsible for their safe custody; he shall produce such papers whenever so directed by the Board/State Government.
- (7) The Member Secretary shall write and maintain confidential reports of all the officers and staff of the Board and shall get them countersigned by the Chairperson.
- (8) The Member Secretary shall exercise such other powers and perform such other function, as may be delegated to him from time to time by the Board.

12. Meetings of the Board:

- (1) The Board shall meet at least four times in a year, normally after three months, unless the State Government call a special meeting of the Board.
- (2) The Chairperson shall, upon a written request from not less than five members of the Board or upon a direction of the State Government, call a special meeting of the Board.
- (3) Fifteen days notice of an ordinary meeting and three days notice of a special meeting specifying the purpose, the time and the place, at which such meeting is to be held, shall be given to the members.
- (4) The decision of the Board shall, if necessary, be taken by a simple majority of the members present.
- (5) Each member shall have one vote.
- (6) Quorum for the meeting of the Board shall be five.
- (7) No member shall be entitled to bring forward for the consideration of a meeting any matter of which he has not given ten days notice unless the Chairperson in his discretion permits him to do so.
- (8) Notice of the meeting may be given to the member by delivering the same by messenger or sending it by registered post to his last known place of residence or business or in such other manner, as the Member Secretary of the Board may, in the circumstances of the case,

think fit.

- (9) In addition, the Board may evolve such other, procedure for the transaction of its business as it may deem fit and proper.

13. **Appointment of Expert Committee by the Board & their Entitlements:**

- (1) The Board may constitute any number of committees for such purposes as it may deem fit consisting wholly of members or wholly of other persons or partly of members or partly of other persons.
- (2) The members of the expert committee other than the members of the Board shall be paid such fees and allowances for attending the meetings, as the Board may deem fit.
- (3) The Board may invite any person, whose assistance or advice is considered useful to obtain in performing any of its functions, and to participate in the deliberations of any of its meetings. Such person associated with the Board shall be entitled to get allowances, as prescribed by the Board from time to time.

14. **General functions of the Board:**

In particular and without prejudice to the generality of other provisions, the Board may perform the following functions.

- (1) Lay down the procedure and guidelines to govern the activities provided under Section 23 of the Act.
- (2) Advise the State Government on any matter concerning conservation of biodiversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the use of biological resource and knowledge.
- (3) Provide technical assistance and guidance to the departments of the State Government.
- (4) Regulate by granting of approvals or otherwise requests for commercial utilization of bio-survey and bio-utilization of any biological resource by Indian Nationals.
- (5) Facilitate updating and implementation of State Bio-diversity Strategy and Action Plan.
- (6) Commission studies and sponsor investigations and research.
- (7) Engage consultant for a specific period, not exceeding one year for providing technical assistance to the Board in the effective discharge of its functions. Provided that it is necessary and expedite to engage any consultant beyond the period of one year, the Board shall seek prior approval of the State Government for such an engagement.
- (8) Collect, compile and publish technical and statistical data, manuals, codes or guides relating conservation of Biological bio-diversity sustainable use of its components and fair and equitable sharing of benefits arising out of the use of biological resource and knowledge.
- (9) Organize through mass media a comprehensive programme regarding conservation of biological bio-diversity, sustainable use of

- its components and fair and equitable sharing of benefits arising of the use of biological resource and knowledge.
- (10) Plan and organize training of personnel engaged or likely to be engaged in programmes for conservation of biological bi-diversity and sustainable use of its components.
 - (11) Take steps to build up database and to create information and documentation system for biological resources and associated traditional knowledge through bio-diversity registers, Community knowledge Registers and electronics bases, to ensure effective management, promotion and sustainable uses. Give directions to the local bodies/bio-diversity Managements Committees in writing and through appropriate oral means, for effective implementation of the Act, and to facilitate their meaning participation in all measures relating to conservation, sustainable use, and equitable benefit-share.
 - (12) Report to the State Government about the functioning of the Board and implementation of the Rules made there under.
 - (13) Recommend, prescribe, modify, collect fee of biological resources from time to time.
 - (14) To devise methods to ensure protection of rights including intellectual property rights over biological resources and associated knowledge including systems of maintaining confidentiality of information as appropriate, including the protection of the information recorded in People's Biodiversity Registers/Community Knowledge Registers.
 - (15) Sanction grants-in-aid and grants to Bio-diversity Management Committee for specific purpose.
 - (16) Undertake physical inspection of any area in connection with the implementation of the Act.
 - (17) Ensure that biodiversity and biodiversity-dependent livelihoods are integrated into all Sections, planning and management and at all levels of planning from local to State, to enable such and administrative levels to contribute effectively for conservation and sustainable use.
 - (18) Prepare the annual Budget of the Board incorporating its own receipts as also the devaluating the State and Central Government provided that the allocation by the Central Government operated in accordance with the budget provisions approved by the Central Government.
 - (19) Board shall have full powers for granting administrative and technical sanctions to all the estimates, it may however delegate such administrative and technical sanction of powers to the Member Secretary of the Board, as may be deemed necessary.
 - (20) Recommend creation of posts to State Government, for effective discharge of the functions by the Board and to create such posts, provided that no such post whether permanent/temporary or of any nature, would be created without prior approval of the State Government.
 - (21) Perform such other functions, as may be necessary to carry out the provisions of the Act or as may be prescribed by the State Government

from time to time.

- (22) Shall have power to acquire, hold and dispose of property, both movable and immovable and enter into contract for the same.

15. Powers and Duties of the Chairperson:

- (1) The Chairperson shall ensure that the affairs of the Board are run efficiently and in accordance with the provisions of the Act and the rules made there-under.
- (2) The Chairperson shall have the powers of general superintendence over the officers and staff of the Board and the Chairperson may issue necessary directions for the conduct and management of affairs of the Board.
- (3) The Chairperson shall convene and preside over all the meeting of the Board and shall ensure that all decisions taken by the Board are implemented in proper manner.
- (4) The Chairperson shall exercise such other powers and perform such other functions as may be delegated to him from time to time by the Board.

16. Terms and Conditions of Service of employees of the Board:

- (1) The terms and conditions of the employees of the Board shall be the same as those of corresponding scale of pay under the State Government in appointments in general shall be on contractual basis or on deputation, unless otherwise decided by the State Government.
- (2) The board shall approve the method of recruitment/promotion to the posts in the Board.

17. Procedure for access to /collection of biological resources:

- (1) Any person seeking access to /collection of biological resources and associated knowledge for research or for commercial utilization shall make an application to the Board in Form-1 appended to these rules. Every application shall be accompanied by a fee of Rs.100/- in case such access is for research and Rs.1000/- for commercial utilization, and shall be in the form of a cheque or demand Draft.
- (2) The Board after due appraisal of the application and after consultation with the concerned local bodies and after collecting such additional information, as it may deem necessary shall decide the application, as far as possible within a period of 3 months of receipt of the same. In this context, the word "consult" for the purposes of the act, includes, the following steps, inter alia, (a) issuing of public notice, in local languages, of the proposal for access / collection, (b) discussion/dialogue with the general assembly of the local body; and (c) formal consent from the assembly after being provided adequate information about the proposal and its implications for conservation and livelihood.
- (3) On being satisfied with the merit of the application, the Board may allow the application or restrict any such activity if it is of the opinion that such activity is detrimental or contrary to the objective

- of conservation and sustainable use of the biodiversity or equitable sharing of benefits arising out of such activity.
- (4) A written agreement duly assigned by an authorized officer of the Board and the applicant shall govern the access/collection. The form of the agreement shall be decided by the Board.
 - (5) The conditions for access to/collection may specifically provide measures for conservation and protection of biological resources to which the access to/collection is being granted.
 - (6) The Board may reject the application if it considers that the request can not be acceded to after recording the reasons thereof. Before passing an order of rejection, the applicant shall be given a reasonable opportunity of being heard.
 - (7) Any information given in the form referred to in the sub-rule (1) for prior intimation shall be kept confidential and shall not be disclosed, either intentionally or unintentionally, to any person not concerned there-to.

18. Revocation of access /approval:

- (1) The Board may either on the basis of any complaint or suo motto withdraw the access granted and revoke the written agreement under the following conditions:-
 - i. On the basis of reasonable belief that the person accessing the said bio-resource has violated any of the provisions of the Act or the condition on which application was allowed.
 - ii. When the person has failed to comply with the terms of agreement;
 - iii. On the failure to comply with any of the conditions of access;
 - iv. On account of overriding public interest with reference to protection of environment and conservation of biological diversity, and protection of the rights, livelihood, and knowledge of local communities.
- (2) The revocation order shall be made only after making such inquiries as required and after giving the person so affected an opportunity of being heard.
- (3) The Board shall send a copy of such revocation order to the Biodiversity Management Committees for prohibiting the access and also to assess the damage, if any, caused and take steps to recover the damage.

19. Restriction on activities related to access to biological resources:

- (1) The Board, if it deems necessary and appropriate, shall take the steps to restrict or prohibit the proposal for access to biological resources for the following reasons:-
 - i. The request for access is for any threatened taxa, or taxa that

- are likely to become threatened due to such access:
- ii. The request for access is for any endemic and rare species,
 - iii. The request for access may likely to result in adverse effect on the livelihood, culture or indigenous knowledge of the local people.
 - iv. The request to access may result in adverse environmental impact which may be difficult to control and mitigate :
 - v. The request for access may cause genetic erosion or affecting the ecosystem function.
 - vi. Use of resources for purposes contrary to national interest and other related international agreements entered into by the country.
- (2) Any order of restriction shall be made only after making such inquiries as required; consulting the concerned local bodies and biodiversity Management Committees and giving the person so affected as opportunity of being heard.
20. **Operation of Orissa Bio-diversity Fund:**
- (1) The Orissa Bio-diversity Fund shall be operated by the Member Secretary of the Board or by such any other officer of the Board as may be authorized by the Board in this behalf.
 - (2) The Orissa Bio-diversity Fund shall have two separate heads of accounts, one relating to the receipts (grants and loans) from the Central Government /National Bio-diversity Authority and State Governments, including receipts from such other sources as decided by the Board and the other concerning the fee, license fee, royalty and other receipts of the Board.
 - (3) The Orissa Government, shall after due appropriation made by the State legislature by the law in this behalf, pay to the Board such sum of money, as the State Government may think fit for being utilized for the purpose of the Act.
 - (4) The Board shall frame guidelines on ways to ensure that decision regarding the management and uses of the Fund are transparent and accountable to the public.
21. **Annual Report and Annual Statement of Accounts:**
- (1) The Board shall prepare its annual report for each financial year giving detailed accounts of its activities and annual statement of accounts and submit the same to the State Government.
 - (2) The Board shall lay down the procedure for upkeep of the accounts. The accounts of the Board shall be audited annually by the Chartered Accountant appointed for the purpose by the Board. The Accountant General of the State may as well audit the accounts and the expenditure towards this shall be payable by the Board.
 - (3) The Board shall submit the Annual Report together with the audited statement of accounts for each financial year to the State Government by September each year so as to enable the State Government to lay the reports before the Legislative Assembly.
22. **Establishment and Management of Bio-diversity Heritage Site:**

- (1) The Board shall, in consultation with the local bodies and other key stakeholders, take necessary steps to facilitate setting up of areas of significant bio-diversity values as Heritage Sites. Following recommendation from the Board and after consultation with the Central Government, the State Government shall issue notification to this effect.
- (2) The Board shall frame guidelines on the selection, management and other aspects of Heritage Sites, ensuring that these provide decision-making role for relevant Biodiversity management Committees.

23. **Constitution of Biodiversity Management Committee:**

- (1) Every local body shall constitute a Biodiversity Management Committee within its area of jurisdiction. Accordingly Biodiversity Management Committees are to be constituted at District, Gram Panchayat level as well as at NAC/Municipality/Municipal Corporation level.
- (2) If the local body is satisfied that the function of the BMC can be discharged by the general assembly of the local body, or by one of its existing committees, the same should be recorded as resolution passed by such local body, following due procedure.
- (3) The Biodiversity Management Committees constituted under Sub-rule (1) shall have seven persons nominated by the local body, of whom not less than half shall be women. Seven local knowledgeable persons being so nominated should be drawn from amongst the herbalists, agriculturist. Non Timber Forest Produce collectors/traders, fisher-folk representatives of user associations, community workers, academicians and any person/representative or organization, on whom the local body trusts that he can significantly contribute to the mandate of the biodiversity Management Committee. The proportion of members belonging to the Scheduled caste and the Scheduled Tribe should not be less than Scheduled caste/Scheduled Tribe percentage of the District, where such a committee is set up. All the above should be residents within the said local body limits and be in the voters list.
- (4) The local body shall nominate six special invitees from Forest, Agriculture, Livestock, Health, Fisheries and Education Departments.
- (5) The Chairperson of the Biodiversity Management Committee shall be elected from amongst the members of the Committee in a meeting to be presided over by the Chairperson of the local body. The Chairperson of the local body shall have the casting vote in case of a tie.
- (6) The chairperson of the Biodiversity Management Committee shall have a tenure of five years.
- (7) The local Member of the Legislative Assembly and Member of Parliament would be special invitees to the meetings of the Biodiversity Management Committees at different levels.
- (8) A technical support group comprising of experts in the field of biodiversity drawn from Government agencies, Non Government Organizations academic field, community and individuals shall be established by Zilla Panchayat/district administration. The expert group shall lend support to Biodiversity Management Committees.

- (9) The key mandate of the Biodiversity Management Committees will be to ensure conservation, sustainable utilization and equitable sharing of benefits from the biodiversity. Biodiversity Management Committees shall facilitate preparation of People's Biodiversity Registers/Community knowledge registers. 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 Zilla Panchayat Biodiversity Management Committee shall be responsible for developing a district wide network of People's Biodiversity Registers database. The People's Biodiversity Registers shall be prepared at the Panchayat/Municipality/Municipal Corporation Biodiversity Management Committee level by using the process and the format set by the Board. The Biodiversity Management Committees and local bodies will be responsible for ensuring the protection of the knowledge recorded in the People's Biodiversity Registers, especially to regulate its access to outside agencies and individuals.
- (10) The other functions of the Biodiversity Management Committees are to advise on any matter referred to it by the State Biodiversity Board or Authority for granting approval, to maintain data about the local vaidyas and practitioners using the biological resources.
- (11) The Zilla Biodiversity Management Committees shall strive to mainstream biodiversity conservation concerns in the developmental planning at the local level.
- (12) The Board shall provide guidance and technical support to the Biodiversity Management Committees for preparing People's Biodiversity Registers, and shall ensure that all information recorded in such Registers receives legal protection against misuse and appropriation by outside agencies and individuals.
- (13) The Committee shall also maintain a Register giving information about the details of the access to biological resources and traditional knowledge granted, details of the collection fee imposed and details of the benefits derived and the mode of their sharing.
- (14) The Biodiversity Management Committees at Panchayat/Municipality/ Municipal Corporation level made decide the terms on which it would permit access to biodiversity resources and associated knowledge to different parties for various purposes within their jurisdiction and levy charges by way of collection fees from any person for accessing or collecting any biological resource for commercial purpose from the area falling within its jurisdiction. The major share of levy charged for the material collected/ cultivated from private land should be given to the owner/ cultivator of the land/ knowledge holder/s and the balance should be deposited in Local Biodiversity Fund of Biodiversity Management Committee. The levy charged for the material collected/ cultivated from Government land should be totally deposited in Local Biodiversity Fund of Biodiversity Management Committee.

- (15) The Board shall provide guidelines for terms of access and fee collection by the Biodiversity Management Committees.
- (16) The Panchayat/Municipality/Municipal Corporation level Biodiversity Management Committees shall prepare a Biodiversity Management Plan using output from People's Biodiversity Register and will be responsible for or participate in its implementation.
- (17) The local bodies shall ensure that the Biodiversity Management Committees are integrated with the functioning of existing local institutions by cross-membership, regular coordination meetings, and other such measures, as determined by the local bodies or as specified by the Board.

24. **Local Bio-diversity Fund:**

- (1) At the level of local body, the local bio-diversity fund shall be constituted.
- (2) The Board shall provide to the local body may loan or grant received by it from State Government, Central Government or from the Authority for the purposes of the Act. The local body can also access such funds from other sources as it identifies or as specified by the Board.
- (3) The local biodiversity fund shall be operated by the Biodiversity Management Committees. The Board shall lay down the operational guidelines for operation of fund by the Biodiversity Management Committees, including ways, in which its functioning is transparent and accountable to all members of the relevant local body.
- (4) The fund shall be used for the conservation and promotion of bio-diversity in the areas falling within the jurisdiction of the concerned local body and for the benefit of the local community in so far such use is consistent with conservation of bio diversity.
- (5) The account of the local biodiversity fund shall be prepared in such forms as may be specified by the Board and during each financial year at such time, as may be prescribed.
- (6) The fund shall be deposited in a nationalized bank/scheduled bank approved by the Biodiversity Management Committee and it shall be operated by the chairperson of the committee under his seal and signature or any other member of Biodiversity Management Committee as may be authorized in this behalf.
- (7) The Biodiversity Management Committees shall prepare its annual report, giving full account of its activities during the previous financial year, and submit a copy thereof to the Board and a copy to the general assembly of the local body.
- (8) The account of the local bio-diversity fund shall be maintained and audited in such manner, as may be specified by the Board.

25. **Appeal for settlement of disputes:**

- (1) If a dispute arises between the Authority and Board or between one Board and other Board(s) on account of implementation of any order/ direction or on any issue of policy decision, either of the aggrieved parties i.e., Authority or the Board, as the case may be,

prefer an appeal under Section 50 of the Act, in Form 11 appended to these rules to the Secretary, Ministry of Environment and Forests Government of India or to the Chairperson, National Biodiversity Authority in the case of dispute between one Board and other Board(s).

- (2) The memorandum of appeal shall state the facts of the case, the grounds relied upon by the appellant and the relief sought for, for preferring the appeal and shall be accompanied by an authenticated copy of the order, direction or policy decision, as the case may be, by which the appellant is aggrieved. The memorandum of appeal shall be duly signed by the authorized representative of the appellant.
- (3) The memorandum of appeal shall be submitted in quadruplicate accompanied with the authenticated copy of the order, directions or policy decisions as the case may be, by which the appellant is aggrieved, either in person or through a registered post with acknowledgement due, within 30 days from the date of the order, direction or policy decision. Provided that if the appellate authority is satisfied that there was good and sufficient reason for the delay in preferring the appeal, the appellate authority, for reasons to be recorded in writing allow the appeal to be preferred after the expiry of the aforesaid period of 30 days but before the expiry of 45th days from the date of the order, direction or policy decision as the case may be.
- (4) The notice for hearing of the appeal shall be given in Form III by a registered post with an acknowledgement due.
- (5) Every memorandum of appeal shall be accompanied by a fee of Rs.100/-.
- (6) The Board shall similarly lay down the procedure for settlement of disputes between Board and the Biodiversity Management Committees or amongst Biodiversity Management Committees and between Biodiversity Management Committee and relevant local bodies.

By Order and in the name of the Governor of Orissa.

FORM 1

(See rule 17)

Application form for access to/collection of Biological resources for commercial utilization and associate traditional knowledge.

PART A

- 1) Full particulars of the applicant:
 - i) Name
 - ii) Permanent Address:
 - iii) Address of the contact person/ agency, if any, in India :
 - iv) Profile of the organization (personal profile in case the applicant is an individual). (Please attach relevant documents of authentication):
 - v) Nature of business :
 - vi) Turnover of the organization in Indian Rupee

- 2) Details and specific information about nature of access sought and biological material and/or associate knowledge to be accessed :
 - i) Identification (scientific name) of biological resources and its traditional use :
 - ii) Geographical location (including Village, Janpad, and district) of proposed collection;
 - iii) Description/nature of traditional knowledge and its existing manifestations and uses (oral/documentated)
 - iv) Any identified individual/family/community holding the traditional knowledge;
 - v) Quantity of biological resources to be collected;
 - vi) Time span in which the biological resources are proposed to be collected
 - vii) Name and number of person authorized by the company for making the collection;
 - viii) The purpose for which the access is requested including the type of extent of research, commercial being derived and expected to be derived from it;
 - ix) Whether any collection or use of the resources endangers any component of biological diversity and risks which may arise from the access.

- 3) Estimation of benefits that would flow to communities arising out of the use of accessed bio- resources traditional knowledge
- 4) Proposed mechanism and arrangements for benefit sharing.
- 5) Any other information.

PART-B
Declaration

I/we declare that:

- Collection and use of proposed biological resources shall not adversely affect the sustainability of the resources;
- Collection and use of proposed biological resources shall not entail any environmental impact;
- Collection and use of proposed biological resources shall not pose any risk to biodiversity, including ecosystems, species, and genetic diversity;
- Collection and use of proposed biological resources shall not adversely affect the local communities;

I/we undertake to pay any fee and/or royalty, as may be levied by the Board or BMCs. I/We further under to furnish any irrevocable bank guarantee, as may be prescribed by the Board.

I/we further declare the Information provided in the application form is true and correct and I/We shall be responsible for any incorrect/wrong information.

Signed _____

Name _____

Title _____

Place

Date

FORM-II

Form of Memorandum of Appeal

(See Rule-25)

BEFORE THE SECRETARY, MINISTRY OF ENVIRONMENT AND FORESTS,
GOVERNMENT OF INDIA, NEW DELHI

OR

CHAIRPERSON, NATIONAL BIODIVERSITY AUTHORITY

(as the case may be)

(Memorandum of appeal under Section 50 of the Biological Diversity Act, 2002)

Appeal No. _____ of 200

Appellant (s)

-Vrs-

Respondent(s)

(here mention the designation of the Authority/Board, as the case may be)

The appellant begs to prefer this Memorandum of Appeal against the order Dated _____ passed by the Respondent on the following facts and grounds.

1. FACTS- (Herein briefly mention the facts of the case)
2. GROUNDS- (Here mention the grounds on which the appeal is made):
 - i.
 - ii.
 - iii.
3. RELIEF SOUGHT:
 - i.
 - ii.
 - iii.
4. PRAYER :-

(a) In the light of what is stated above, the appellant respectfully prays that the order/decision of the respondent be quashed/set-aside.

(b) The policy/guidelines/rules/regulations framed by the Respondent be quashed/modified/annulled to the extent _____

(c) _____

5. The amount of Rs. _____ (Rupees _____) as fee for this appeal has been paid to _____ vide order No. _____ dated _____.

Place _____

Signature of the appellant

Dated : _____

With Seal

Address

VERIFICATION

I, the appellant do hereby declare that what is stated above is true to the best of my information and belief.

Verified on _____ day of _____.

Signature of the appellant

With Seal Address

Enclosures- Authenticated copy of the order, direction or policy decision, against which the appeal has been preferred.

FORM III
(See rule 25 (4))
Before the Secretary, Ministry of Environment & Forests,
Government of India, New Delhi
OR
Before the Chairperson, National Biodiversity Authority
(as the case may be)
Appeal No. _____ of 200 _____

Between

Appellant(s)

-Vrs-

Respondent (s)

To

NOTICE

Please take the notice that the above appeal filed by the appellant, against the order/direction/policy decision (Give details) is fixed for hearing on _____ at _____

The copies of the Memorandum of appeal and other annexure filed along with the appeal are sent herewith for your reference.

Please note that if you fail to appear on the said date or other subsequent date of hearing of the appeal, the appeal would be disposed of finally by placing you ex-parte.

Authorized signatory on behalf of the Appellate Authority
(Seal)

Place: _____

Date: _____

Annexure-IX
RCDC's SPECIFIC SUGGESTIONS TO REVISE
THE DRAFT ORISSA BIOLOGICAL DIVERSITY RULES, 2010

Section 2:

After sub-section(b), the following new sub-section may be inserted:

'Bio-survey' and 'Bio-utilization' shall have the same meaning as defined under Section 2-d of the Act.

Sub-section(d) may be revised as under:

"Committee" means Biodiversity Management Committee(hereinafter referred also as BMC) established in/by local bodies under Section 41 of the Act.

After sub-section (f), the following new sub-section may be inserted:

"Forest Rights Act" means The Schedule Tribes & Other Traditional Forest Dwellers(Recognition of Forest Rights) Act,2006

"Forest Right Holder(s)" shall mean a/the holder of forest right(s) as recognized under the The Schedule Tribes & Other Traditional Forest Dwellers(Recognition of Forest Rights) Act,2006

After subsection (i), the following may be inserted as another subsection:

"Non-timber Forest Produce" shall have the same meaning as defined under Section 2-i of the Schedule Tribes & Other Traditional Forest Dwellers(Recognition of Forest Rights) Act,2006 for Minor Forest Produce.

After sub-section(k), the following may be inserted as another subsection:'

"Local body" shall mean democratically elected bodies of local self-governance, and shall include Panchayati Raj Institutions at appropriate level and Urban local bodies like Notified Area Councils, Municipalities, and Municipal Corporations.

Other subsections may be accordingly renumbered.

Section 3:

Sub-section (1) may be revised as under(since the Secretary, Forest & Environment Department would be there as ex-officio member):

The Chairperson of the Board shall be an eminent person acceptable to the civil society as well as the scientific community at large, having adequate knowledge and experience with initiatives in the conservation and sustainable use of Biodiversity, protection of intellectual property rights, and in matters relating to the equitable sharing of the benefits.

Section 6:

Sub-section(1) may be revised as under:

Five non-official members from amongst the experts or otherwise competent group of individuals/NGOs/CBOs active and experienced in matters relating to conservation of biological diversity, protection of intellectual property rights, sustainable use of biological resources, and equitable sharing of benefits arising out of the use of biological resources shall be nominated by the State Government with

prior notice in public so as to invite any objections thereto, and for making the nomination undisputable.

Section 14:

A new sub-section may be inserted after sub-section(1) as under:

Take necessary legal action to protect/conservate the intellectual property rights of local people, and other such rights of individuals/communities that are related to the conservation & sustainable utilization of biological resources; and also to develop a model benefit sharing mechanism, in consultation with all the concerned stakeholders to be followed by sharing of the draft mechanism thus developed for public comments for necessary modifications in order to make it acceptable to the stakeholders at large.

Sub-section (8) may be revised as under:

Collect, compile, publish and update technical and statistical data, manuals, codes or guides relating to the threat status of various biological resources(flora-wise, fauna-wise, etc.), conservation of biological diversity, sustainable use of its components, and fair & equitable sharing of benefits arising of the use of biological resource and knowledge.

Sub-section (12) may be revised as under:

Give directions to the local bodies/Bio-diversity Management Committees, and suggestions/reminders to the Forest Right Holder(s), in writing for primary purposes(i.e.,key points) and through appropriate oral means for secondary purposes(i.e., other than key points), for effective implementation of the Act; and to facilitate their meaningful participation in all measures relating to conservation, sustainable use, and equitable benefit sharing.

Further, under Section 14 the following may be inserted after elaboration of the general functions of the Board:

Special Functions of the Board:

- (1) Periodic monitoring of activities in comparison to the progress made by the counterparts in other states of India.
- (2) Periodic monitoring of the impact of the initiatives taken for conservation of bio-diversity and for benefit sharing.
- (3) Maintenance of a website with all relevant and updated information.
- (4) Commissioning pilot projects/programmes for preparation of bio-diversity registers and other such important documents so as to create models, understand the possible problems in the work, and take necessary steps to revise the strategy in order to overcome such problems.

Section 17:

Sub-section (1) may be revised as under:

Any person/agency/group seeking access to collection of biological resources and associated knowledge for research or for commercial utilization shall make an application to the Board in Form-1 appended to these Rules. Every application shall

be accompanied by a fee of Rs.100/- in case such access is for research and Rs.1000/- for commercial utilization, and shall be in the form of a cheque or demand draft. This shall however not be applicable for local & traditional practitioners, as provided under Section 7 of the Act; and also for Forest Right Holder(s).

Sub-section (2) may be revised as under:

The Board after due appraisal of the application and after undisputable consultation (to be substantiated with an approved resolution of those consulted with) with the general assembly of the concerned local bodies/Forest Right Holder(s), and after collecting such additional information as it may deem necessary, shall decide the application, normally within a period of 90 days of receipt of the same. In this context, the word 'consult' for the purposes of the act, includes the following steps, inter alia,(a) issuing of public notice, in local languages, of the proposal for access/collection,(b) discussion/dialogue with the general assembly of the local body or Forest Right Holder(s); and (c) formal consent from the assembly/Forest Right Holder(s) after being provided adequate information about the proposal and its implications for conservation & livelihood.

Section 23:

Sub-section(1) may be revised as under:

Every local body shall constitute a Biodiversity Management Committee within its area of jurisdiction, and with due approval of its general assembly. Accordingly, Biodiversity Management Committees are to be constituted at District-, Block-, and Gram Panchayat level as well as NAC/Municipality/Municipal Corporation level.

Sub-section(2) may be revised as under:

If the general assembly is satisfied that the function of the BMC can be discharged by the local body, or by one of its existing & functional committees, the same should be recorded as resolution, following due procedure.

Sub-section (3) may be revised as under:

The Biodiversity Management Committee constituted under Sub-rule(1) shall have seven persons nominated by the general assembly of the local body, of whom not less than half shall be women. Seven local knowledgeable persons being so nominated should be drawn from amongst the herbalists, agriculturist, Non Timber Forest Produce collectors/traders, forest right holder(s),fisher-folk representatives of user-associations, community workers, academicians and any person/representative or organization, on whom the general assembly trusts that he/she can significantly contribute to the mandate of the Biodiversity Management Committee. The proportion of members belonging to the Scheduled Caste and Scheduled Tribe should not be less than the Scheduled Caste/Scheduled Tribe percentage of the district, where such committee is set up. All the above should be residents of the area under jurisdiction of the concerned local body, and be in voter's list.

Sub-section(4) may be revised as under:

The general assembly of the local body shall nominate six special invitees from Forest-, Agriculture-, Fisheries-, Livestock-, Health-, and Education departments; and shall reserve the right to nominate invitee from any other competent agency/department of the government in place of Health-, and Education department, in case so required, with due justifications thereto in the resolution .

Sub-section (9) may be revised as under:

The key mandate of the Biodiversity Management Committee will be to ensure conservation, sustainable utilization and equitable sharing of benefits from the biodiversity, and also to protect the rights of the Forest Rights Holder(s) in this regard as provided in the Forest Rights Act. Biodiversity Management Committees shall facilitate preparation of People's Biodiversity Registers/Community Knowledge Registers and/or other such documents that pertain to the objectives of the Act. The Register shall contain comprehensive information on availability & knowledge of local biological resources, their medicinal or any other use or any other traditional/indigenous/locally developed knowledge associated with them. The Zilla Biodiversity Management Committee shall be responsible for developing a district-wide network of People's Biodiversity Registers or other such database. The People's Biodiversity Registers shall be prepared at the Forest Right Holder(s)/Panchayat/Municipality/Municipal Corporation Biodiversity Management Committee level by using the process and format set by the Board. The Biodiversity Management Committee and local bodies shall be responsible for ensuring the protection of the knowledge recorded in People's Biodiversity Registers and other such documents, especially to regulate its access, direct or indirect, to outside agencies and individuals.

Sub-section (14): Qualitative term 'major share' should be quantitatively defined, say for example, 80%. Further, the Biodiversity Management Committees at Panchayat level have to forward requests for access of biological resources, to the Forest Right Holder(s) in case the resource is under the ownership & management the Forest Right Holder(s); and the provision of major share for private lands shall be applicable to such cases, i.e. to share with the concerned Forest Right Holder(s) if the access is granted through a payment received by the Panchayat Biodiversity Management Committee, with written approval of the Forest Right Holder(s). Such Forest Rights Holder(s) is/are to be guided properly so as to meet the requirements of the Biological Diversity Act, 2002 and the Forest Rights Act,2006; and in case they are not in a stage to independently handle applications for access to biological resources, the Panchayat Biodiversity Management Committee may help them in handling the matter successfully or may also carry out the job on their behalf on written request.

Section 25:

Sub-section(5) may be revised as under:

Every memorandum of appeal shall be accompanied by a fee of Rs.100/-, however Forest Right Holder(s), Biodiversity Management Committees, and local bodies shall be exempted from this fee.

Sub-section(6) may be revised as under:

The Board shall similarly lay down procedure for settlement of disputes between Board and the Biodiversity Management Committees, or between the Board and the Forest Right Holder(s), or between the Biodiversity Management Committees and the Forest Right Holder(s), or amongst the Biodiversity Management Committees/Forest Right Holder(s), or between the Biodiversity Management Committee and relevant local bodies.

A new sub-section(7) may be inserted as under:

Due preference will be given to the appeal of democratically elected bodies like the local bodies or their general assemblies or Biodiversity Management Committees constituted by them, in settlement of disputes between such bodies and the Board /Authority, unless there is an undisputed scientific claim/factor against such bodies

FORM-1 (Part-A): It should contain also the following:

- Phone number, fax number, and e-mail address of the applicant
- Present address and address of registered office(in case of companies or other agencies)
- Local name and trade name of the resource to be accessed

Annexure-X
MP State Biodiversity Rules
Bhopal the 17th December 2004

No. F. 1-2/2003/LVII - In exercise of the powers conferred by sub section (1) of Section 63 of the Biological Diversity Act, 2002 (No. 18 of 2003), the State Government hereby makes the following Rules, namely: -

RULES

1. Short title and commencement - (1) These Rules may be called Madhya Pradesh Biological Diversity Rules, 2004.

(2) They shall come into force on the date of their publication in the "Madhya Pradesh Gazette".

2. Definitions - In these Rules, unless the context otherwise requires -

- (a) "Act" means the Biological Diversity Act, 2002 (No. 18 of 2003);
- (b) "Authority" means the National Biodiversity Authority established under sub-section (1) of Section 8 of the Act;
- (c) "Board" means the Madhya Pradesh State Biodiversity Board established under Section 22 of the Act;
- (d) "Committee" means Biodiversity Management Committee established by the local bodies under Section 41 of the Act;
- (e) "Chairperson" means the Chairperson of the State Biodiversity Board;
- (f) "Fee" means any fee stipulated in these Rules;
- (g) "Form" means form appended to these Rules;
- (h) "State Government" means the Government of Madhya Pradesh;
- (i) "Member" means member of the National Biodiversity Authority or a State Biodiversity Board, and includes the chairperson as the case may be thereof;
- (j) "Section" means section of the Act;
- (k) "Member Secretary" means the Member-Secretary of the Board;
- (l) Words and expressions used but not defined in these Rules and defined in the Act shall have the same meaning respectively assigned to them in the Act.

3. Manner of selection and appointment of the Chairperson - (1) The Chairperson of the Board shall be a minister or a serving officer of the State Government or an eminent person having adequate knowledge and experience in the conservation and sustainable use of biodiversity and in matters relating to the equitable sharing of the benefits.

(2) The Chairperson of the Board shall be appointed by the State Government.

(3) In case the appointment under sub-rule (2) is not that of a minister or serving officer of the Government, it shall be done on the recommendation of a three member

search committee, headed by the Chief Secretary, appointed for the purpose; provided that in case of a serving officer of the State Government, he shall not be of a rank below that of a Principal Secretary to the government.

4. Term of Office of the Chairperson - (1) The Chairperson of the Board shall hold the office for a term of three years' and shall be eligible for re-appointment. Provided that no Chairperson shall hold office beyond the age of 65 years.

(2) The Chairperson may resign from his office by giving at least one month notice in writing to the State Government.

(3) Notwithstanding any other provision of these Rules, continuance of the chairperson in the office shall be at the pleasure of the State Government.

5. Pay and Allowances of the Chairperson - The Chairperson shall be entitled to such salary, allowances, leave, pension, provident fund, house and other perquisites, as may be determined by the State Government from time to time.

6. Nomination and Term of office and Allowances of non-official member - (1) Five non-official members from amongst the experts in matters relating to conservation of biological diversity, sustainable use of biological resources and equitable sharing of benefits arising out of the use of biological resources shall be nominated by the State Government. At least two of these members shall be experts from local communities, nominated by the community concerned.

(2) The non-official Member of the Board shall hold the office for a term not exceeding three years at a time from the date of his nomination.

(3) The non-official Member shall be entitled to sitting allowance, traveling expenses, daily allowance and to such other allowances, as may be fixed by the State Government for attending the meeting(s) of the Board.

7. Filling up of vacancies of non-official member - (1) A non-official member of the Board may resign from his office at any time by giving in writing under his hand addressed to the State Government and the seat of that member in the Board shall become vacant.

(2) A casual vacancy in the Board shall be filled up by a fresh nomination and the person nominated to fill the vacancy shall hold office only for the remainder of the term of the member, in whose place he was nominated.

8. Removal of the Members of the Board - No member of the Board shall be removed from the office on any grounds specified in Section 11 of the Act, without due and proper enquiry by an officer not below the rank of Principal Secretary appointed by the State Government for the purpose and without giving a reasonable opportunity to the member of being heard.

9. Appointment of the Ex-officio Members - Five ex-officio members shall be appointed from the following departments/organizations of the State Government as long as they hold their respective office: -

(1) Agricultural Production Commissioner,

- (2) Principal Secretary/Secretary, Department of Biodiversity and Biotechnology,
- (3) Principal Chief Conservator of the Forest,
- (4) Vice-Chancellor, JNKVV, Jabalpur,
- (5) Member-Secretary of State Biodiversity Board.

10. Head Office of the Board - The Head Office of the Board shall be at Bhopal.

11. Member Secretary of the Board - (1) The Member-Secretary shall be appointed by the State Government on deputation. His terms and conditions of appointment shall be determined by the State Government.

(2) The Member-Secretary shall be responsible for day today administration of the Board, management of funds and implementation of various activities of the programme under the guidance of the Chairperson of the Board.

(3) All orders or Instructions to be issued by the Board shall be under the signature of the Member-Secretary or of any other officer authorized in this behalf by the Board.

(4) The Member-Secretary either himself or through an officer authorized for the purpose may sanction and disburse all payments against the approved budget.

(5) The Member-Secretary shall have powers to give administrative sanctions to the estimates included in the budget of the Board.

(6) The Member-Secretary shall be in charge of all the confidential papers of the Board and shall be responsible for their safe custody; he shall produce such papers whenever so directed by the Board/State Government.

(7) The Member-Secretary shall write and maintain confidential reports of all the officers and staff of the Board and shall get them countersigned by the Chairperson.

(8) The Member-Secretary shall exercise such other powers and perform such other function, as may be delegated to him from time to time by the Board.

12. Meetings of the Board - (1) The Board shall meet at least four times in a year normally after three months at the Head quarters of the Board or at such other place, as may be decided by the Chairperson.

(2) The Chairperson shall, upon a written request from not less than five members of the Board or upon a direction of the State Government, call a special meeting of the Board.

(3) Fifteen days notice of an ordinary meeting and three days notice of a special meeting specifying the purpose, the time and the place, at which such meeting is to be held, shall be given to the members.

(4) Every meeting shall be presided over by the chairperson and in his absence, by a presiding officer to be elected by the members present from amongst themselves.

(5) The decision of the Board shall, if necessary, be taken by a simple majority of the members present and voting and the Chairperson or in his absence; the member presiding shall have a second or casting vote.

(6) Each member shall have one vote.

(7) Quorum for the meeting of the Board shall be five.

(8) No member shall be entitled to bring forward for the consideration of a meeting any matter of which he has not given ten days' notice unless the chairperson in his discretion permits him to do so.

(9) Notice of the meeting may be given to the member by delivering the same by messenger or sending it by registered post to his last known place of residence or business or in such other manner, as the Member-Secretary of the Board may, in the circumstances of the case, think fit.

(10) In addition, the Board may evolve such other procedure for the transaction of its business as it may deem at and proper.

13. Appointment of Expert Committee by the Board and their Entitlements - (1)

The Board may constitute any number of committees for such purposes as it may deem fit consisting wholly of members or wholly other persons or partly of members or partly of other persons.

(2) The members of the expert committee other than the members of the Board shall be paid such fees and for attending the meetings, as the Board may deem fit.

(3) The Board may invite any person, whose assistance or advice is considered useful to obtain in any of its functions, and to participate in the deliberations of any of its meetings.

(4) person associated with the Board shall be entitled to get allowances, as

prescribed by the Board from time to time.

14. General functions of the Board - In particular and without prejudice to the generality of other provisions, the Board may perform the following functions: -

- (i) Lay down the procedure and guidelines to govern the activities provided under Section 23
- (ii) Advise the State Government on any matter concerning conservation of biodiversity, sustainable of its components and fair and equitable sharing of benefits arising out of the use of biology resource and knowledge.
- (iii) Provide technical assistance and guidance to the departments of the State Government.
- (iv) Regulate by granting of approvals or otherwise requests for commercial utilisation or bio-survey a bio-utilisation of any biological resource by Indian Nationals.
- (v) Facilitate updating and implementation of State Biodiversity Strategy and Action Plan.
- (vi) Commission studies and sponsor investigations and research.
- (vii) Engage consultant for a specific period, not exceeding three years, for providing technical assistance to the Board in the effective discharge of its functions. Provided that if it is necessary and expedient to engage any consultant beyond the period of three years, the Board shall seek prior approval of the State Government for such an engagement.

- (viii) Collect, compile and publish technical and statistical data, manuals, codes or guides relating to conservation of Biological biodiversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the use of biological resource and knowledge.
- (ix) Organise through mass media a comprehensive programme regarding conservation of biological biodiversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the use of biological resource and knowledge.
- (x) Plan and organise training of personnel engaged or likely to be engaged in programmes for the conservation of biological biodiversity and sustainable use of its components.
- (xi) Take steps to build up database and to create information and documentation system for biological resources and associated traditional knowledge through biodiversity registers and electronics databases, to ensure effective management, promotion and sustainable uses.
- (xii) Give directions to the local bodies/Biodiversity Management Committees in writing and through appropriate oral means, for effective implementation of the Act, and to facilitate their meaningful participation in all measures relating to conservation, sustainable use, and equitable benefit-sharing.
- (xiii) Report to the State Government about the functioning of the Board and implementation of the Act and the Rules made there under.
- (xiv) Recommend, prescribe, modify, collect fee of biological resources from time to time.
- (xv) To devise methods to ensure protection of rights including intellectual property rights over biological resources and associated knowledge including systems of maintaining confidentiality of such information as appropriate, including the protection of the information recorded in People's Biodiversity Registers.
- (xvi) Sanction grants-in-aid and grants to Biodiversity Management Committees for specific purposes.
- (xvii) Undertake physical inspection of any area in connection with the implementation of the Act.
- (xviii) Ensure that biodiversity and biodiversity-dependent livelihoods are integrated into all sectors of planning and management, and at all levels of planning from local to state, to enable such sectors and administrative levels to contribute effectively for conservation and sustainable use.
- (xix) Prepare the annual Budget of the Board incorporating its own receipts as also the devaluation from the State and Central Government provided that the allocation by the Central Government shall be operated in accordance with the budget provisions approved by the Central Government.
- (xx) Board shall have full powers for granting administrative and technical sanctions to all the estimates; it may however delegate such administrative and technical sanction powers to the Member Secretary of the Board, as may be deemed necessary.
- (xxi) Recommend creation of posts to State Government, for effective discharge of the functions by the Board and to create such posts, provided that no such

post whether permanent/temporary or of any nature, would be created without prior approval of the State Government.

(xxii) Perform such other functions, as may be necessary to carry out the provisions of the Act or as may be prescribed by the State Government from time to time.

(xxiii) Shall have power to acquire, hold and dispose of property, both movable and immovable and enter into contract for the same.

15. Powers and Duties of the Chairperson - (1) The chairperson shall ensure that the affairs of the Board are run efficiently and in accordance with the provisions of the Act and the rules made there under.

(2) The Chairperson shall have the powers of general superintendence over the officers and staff of the Board and the Chairperson may issue necessary directions for the conduct and management of affairs of the Board.

(3) The Chairperson shall convene and preside over all the meetings of the Board and shall ensure that all decisions taken by the Board are implemented in proper manner.

(4) The Chairperson shall exercise such other powers and perform such other functions as may be delegated to him from time to time by the Board.

16. Terms and Conditions of Service of employees of the Board - (1) The terms and conditions of the employees of the Board shall be the same as those of corresponding scale of pay under the State Government, the appointments in general shall be on contractual basis or on deputation, unless otherwise decided by the State Government.

(2) The board shall approve the method of recruitment/promotion to the posts in the Board.

17. Procedure for access to/collection of biological resources - (1) Any person seeking access to/collection of biological resources and associated knowledge for research or for commercial utilization shall make an application to the Board in Form-1 appended these rules. Every application shall be accompanied by a fee of Rs. 100/- in case such access is for research purpose and Rs. 1000/- for commercial utilization, and shall be in the form of a cheque or demand draft.

(2) The Board after due appraisal of the application and after consultation with the concerned local bodies and after collecting such additional information, as it may deem necessary shall decide the application, as far as possible within a period of 3 months of receipt of the same. In this context, the word "consult", for the purposes of the act, includes the following steps, inter alia: (a) issuing of public notice, in local languages, of the proposal for access/collection; (b) discussion/dialogue with the general assembly of the local body; and (c) formal consent from the assembly after being provided adequate information about the proposal and its implications for conservation and livelihoods.

(3) On being satisfied with the merit of the application, the Board may allow the application or restrict any such activity if it is of the opinion that such activity is detrimental or contrary to the objectives of conservation and sustainable use of biodiversity or equitable sharing of benefits arising out of such activity.

(4) A written agreement duly signed by an authorized officer of the Board and the applicant shall govern the access/collection. The form of the agreement shall be decided by the Board.

(5) The conditions for access to/collection may specifically provide measures for conservation and protection of biological resources to which the access to/collection is being granted.

(6) The Board may reject the application if it considers that the request cannot be acceded to after recording the reasons therefor. Before passing an order of rejection the applicant shall be given a reasonable opportunity on being heard.

(7) Any information given in the form referred to in the sub-rule (1) for prior intimation shall be kept confidential and shall not be disclosed, either intentionally or unintentionally, to any person not concerned thereto.

18. Revocation of access/approval - (1) The Board may either on the basis of any complaint or suo moto withdraw the access granted and revoke the written agreement under the following conditions: -

- (i) On the basis of reasonable belief that the person accessing the said bio-resource has violated any of the provisions of the Act or the condition on which application was allowed;
- (ii) When the person has failed to comply with the terms of agreement;
- (iii) On failure to comply with any of the conditions of access;
- (iv) On account of overriding public interest with reference to protection of environment and conservation of biological diversity, and protection of the rights, livelihoods, and knowledge of local communities.

(2) The revocation order shall be made only after making such inquiries as required and after giving the person so affected an opportunity of being heard.

(3) The Board shall send a copy of such revocation order to the Biodiversity Management Committees for prohibiting the access and also to assess the damage, if any, caused and take steps to recover the damage.

19. Restriction on activities related to access to biological resources - (1) The Board, if it deems necessary and appropriate, shall take the steps to restrict or prohibit the proposal for access to biological resources for the following reasons: -

- (i) The request for access is for any threatened taxa, or taxa that are likely to become threatened due to such access;
- (ii) The request for access is for any endemic and rare species;
- (iii) The request for access may likely to result in adverse effect on the livelihoods, culture, or indigenous knowledge of the local people;
- (iv) The request to access may result in adverse environmental impact which may be difficult to control and mitigate;
- (v) The request for access may cause genetic erosion or affecting the ecosystem function;
- (vi) Use of resources for purposes contrary to national interest and other related international agreements entered into by the country.

(2) Any order of restriction shall be made only after making such inquiries as required; consulting the concerned local bodies and Biodiversity Management Committees, and giving the person so affected an opportunity of being heard.

20. Operation of State Biodiversity Fund - (1) The State Biodiversity Fund shall be operated by the Member-Secretary of the Board or by such any other officer of the Board as may be authorized by the Board in this behalf.

(2) The State Biodiversity Fund shall have two separate heads of accounts, one relating to the receipts (grants and loans) from the Central Government/National Biodiversity Authority and State Government, including receipts from such other sources as decided by the Board and the other concerning the fee, licence fee, royalty and other receipts of the Board.

(3) The State Government, shall after due appropriation made by the State legislature by the law in this behalf, pay to the Board such sum of money, as the State Government may think fit for being utilized for the purpose of the Act.

(4) The Board shall frame guidelines on ways to ensure that decisions regarding the management and use of the Fund are transparent and accountable to the public.

21. Annual Report and Annual Statement of Accounts - (1) The Board shall prepare its annual report for each financial year giving detailed account of its activities and annual statement of accounts and submit the same to the State Government.

(2) The Board shall lay down the procedure for upkeep of the accounts. The accounts of the Board shall be audited annually by the Chartered Accountant appointed for the purpose by the Board. The Accountant General of the State may as well audit the accounts and the expenditure towards this shall be payable by the Board.

(3) The Board shall submit the Annual Report together with the audited statement of accounts for each financial year to the State Government by September each year so as to enable the State Government to lay the reports before the Legislative Assembly.

22. Establishment and Management of Biodiversity Heritage Site - (1) The Board shall, in consultation with the local bodies and other key stakeholders, take necessary steps to facilitate setting up of areas of significant biodiversity values as Heritage Sites. Following recommendation from the Board and after consultation with the Central Government, the State Government shall issue notification to this effect.

(2) The Board shall frame guidelines on the selection, management and other aspects of Heritage Sites, ensuring that these provide decision-making role for relevant Biodiversity Management Committees.

23. Constitution of Biodiversity Management Committees - (1) Every local body shall constitute a Biodiversity Management Committee within its area of jurisdiction. Accordingly, Biodiversity Management Committees are to be constituted at Zila Panchayat, Janpad Panchayat, Gram Panchayat and Gram Sabha level as well as at (Nagar Panchayat)¹, Municipality and Municipal Corporation level.

(2) If the local body is satisfied that the function of the BMC can be discharged by the general assembly of the local body, or by one of its existing committees, the same should be recorded as resolution passed by such local body, following due procedure.

(3) The Biodiversity Management Committees constituted under sub-rule (1) shall have seven persons nominated by the local body, of whom not less than one third shall be women. Seven local knowledgeable persons being so nominated should be drawn from amongst the herbalists, agriculturist, Non Timber Forest Produce collectors/ traders, fisher-folk, representatives of user associations, community workers, academicians and any person/representative of organization, on whom the local body trusts that he can significantly contribute to the mandate of the Biodiversity Management Committee. The proportion of members belonging to the Scheduled Caste and the Scheduled Tribe should not be less than Scheduled

Caste/Scheduled Tribe percentage of the District, where such a committee is set up. All the above should be residents within the said local body limits and be in the voters list.

(4) The local body shall nominate six special invitees from forest, agriculture, livestock, health, fisheries and education department.

(5) The chairperson of the Biodiversity Management Committee shall be elected from amongst the members of the committee in a meeting to be presided over by the chairperson of the local body. The chairperson of the local body shall have the vote in case of a tie.

(6) The chairperson of the Biodiversity Management Committee shall have a tenure of five years.

(7) The local Member of the Legislative Assembly and Member of Parliament would be special invitees to the meetings of the Biodiversity Management Committees at different levels.

(8) A technical support group comprising of experts in the field of biodiversity drawn from Government agencies, Non Government Organisations, academic field, community and individuals shall be established by Zila Panchayat/district administration. The expert group shall lend support to Biodiversity Management Committees.

(9) The key mandate of the Biodiversity Management Committees will be to ensure conservation, sustainable utilization and equitable sharing of benefits from the biodiversity. The Biodiversity Management Committees shall facilitate preparation of People's Biodiversity Registers. 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 Zila Panchayat Biodiversity Management Committee shall be responsible for developing a district wide network of People's Biodiversity Registers database. The People's Biodiversity Registers shall be prepared at the Gram Sabha/(Gram)¹Panchayat/(Nagar Panchayat/)¹ Municipality/ Municipal Corporation Biodiversity Management Committee level by using the process and the format set by the Board. The Biodiversity Management Committees and local bodies will be responsible for ensuring the protection of the knowledge recorded in the People's Biodiversity Registers, especially to regulate its access to outside agencies and individuals.

1. Added/ substituted by Department of Biodiversity & Biotechnology's notification no. F-1-2-2003-57 dated 01.02.2007

(10) The other functions of the Biodiversity Management Committees are to advise on any matter referred to it by the State Biodiversity Board or Authority for granting approval, to maintain data about the local vairs and practitioners using the biological resources.

(11) The Zila and Janpad Biodiversity Management Committees shall strive to (incorporate)¹ biodiversity conservation concerns in the development planning at the local level.

(12) The Board shall provide guidance and technical support to the Biodiversity Management Committees for preparing People's Biodiversity Registers, and shall

ensure that all information recorded in such Registers receives legal protection against misuse and appropriation by outside agencies and individuals.

(13) The Committee shall also maintain a Register giving information about the details of the access to biological resources and traditional knowledge granted, details of the collection fee imposed and details of the benefits derived and the mode of their sharing.

(14) The Biodiversity Management Committee at Gram Sabha/(Gram)¹ Panchayat/(Nagar Panchayat/¹ Municipality/Municipal Corporation level may decide the terms on which it would permit access to biodiversity resources and associated knowledge to different parties for various purposes within their jurisdiction and levy charges by way of collection fees from any person for accessing or collection any biological resource for commercial purpose from the area falling within its jurisdiction. The major share of levy charged for the material collected/cultivated from private land should be given to the owner/cultivator of the land/knowledge holder/s and the balance should be deposited in Local Biodiversity Fund of Biodiversity Management Committee. The levy charged for the material collected/cultivated from Government land should be totally deposited in Local Biodiversity Fund of Biodiversity Management Committee.

(15) The Board shall provide guidelines for terms of access and fee collection by the Biodiversity Management Committees.

(16) The Gram Sabha/Gram Panchayat/(Nagar Panchayat/¹ Municipality/Municipal Corporation level Biodiversity Management Committees shall prepare a Biodiversity Management Plan using output from People's Biodiversity Register and will be responsible for or participate in its implementation.

1. Added/ substituted by Department of Biodiversity & Biotechnology's notification no. F-1-2-2003-57 dated 01.02.2007

(17) The local bodies shall ensure that the Biodiversity Management Committees are integrated with the functioning of existing local institutions by cross-membership, regular coordination meetings, and other such measures, as determined by the local bodies or as specified by the Board.

24. Local Biodiversity Fund - (1) At the level of local body, the local biodiversity fund shall be constituted.

(2) The Board shall provide to the local body any loan or grant received by it from State Government, Central Government or from the Authority for the purposes of the Act. The local body can also access such funds from other sources as it identifies, or as specified by the Board.

(3) The local biodiversity fund shall be operated by the Biodiversity Management Committees. The Board shall lay down the operational guidelines for operation of the fund by the Biodiversity Management Committees, including ways, in which its functioning is transparent and accountable to all members of the relevant local body.

(4) The fund shall be used for the conservation and promotion of biodiversity in the areas falling within the jurisdiction of the concerned local body and for the benefit of the local community in so far such use is consistent with conservation of biodiversity.

(5) The account of the local biodiversity fund shall be prepared in such forms as may be specified by the Board and during each financial year at such time, as may be prescribed.

(6) The Biodiversity Management Committees shall prepare its annual report, giving full account of its activities during the previous financial year, and submit a copy thereof to the Board and a copy to the general assembly of the local body.

(7) The accounts of the local biodiversity fund shall be maintained and audited in such manner, as may be specified by the Board.

25. Appeal for settlement of disputes - (1) If a dispute arises between the Authority and Board or between one Board and other Board(s) on account of implementation of any order/direction or on any issue of policy decision, either of the aggrieved parties i.e., Authority or the Board, as the case may be, prefer an appeal under Section 50 of the Act, in form II appended to these rules to the Secretary, Ministry of Environment and Forests Government of India or to the Chairperson, National Biodiversity Authority in the case of dispute between one Board and other Board(s).

(2) The memorandum of appeal shall state the facts of the case, the grounds relied upon by the appellant and the relief sought for, for preferring the appeal and shall be accompanied by an authenticated copy of the order, direction or policy decision, as the case may be, by which the appellant is aggrieved. The memorandum of appeal shall be duly signed by the authorized representative of the appellant.

(3) The memorandum of appeal shall be submitted in quadruplicate accompanied with the authenticated copy of the order, directions or policy decisions as the case may be, by which the appellant is aggrieved, either in person or through a registered post with acknowledgement due, within 30 days from the date of the order, direction or policy decision. Provided that if the appellate authority is satisfied that there was good and sufficient reason for the delay in preferring the appeal, the appellate authority, for reasons to be recorded in writing allow the appeal to be preferred after the expiry of the aforesaid period of 30 days but before the expiry of 45 days from the date of the order, direction, or policy decision as the case may be.

(4) The notice for hearing of the appeal shall be given in Form III by a registered post with an acknowledgement due.

(5) Every memorandum of appeal shall be accompanied by a fee of Rs. 100/-.

(6) The Board shall similarly lay down the procedure for settlement of disputes between Board and the Biodiversity Management Committees or amongst Biodiversity Management Committees, and between Biodiversity Management Committee and relevant local bodies.

**By order and in the name of the Governor of Madhya Pradesh,
ANURAG SHRIVASTAVA, Addl. Secy.**

Annexure-XI

AP State Biodiversity Rules

GOVERNMENT OF ANDHRA PRADESH ABSTRACT

The Biological Diversity Act, 2002 (Central Act No.18 of 2003) – Framing of Biodiversity Rules – Notification - Orders – Issued.

ENVIRONMENT, FORESTS, SCIENCE & TECHNOLOGY (FOR.II) DEPARTMENT

G.O. Ms. No. 70 Dated:21.08.2009.

Read the following:--

1. G.O. Ms. No.68, Environment, Forests, Science & Technology (For.II) Department, dt.11.5.2006.
2. From the Principal Chief Conservator of Forests, Andhra Pradesh, Hyderabad Letter No.38483/2004/WL-3, dt.30.5.2006.
3. From Principal Chief Conservator of Forests (WL) & Chief Wildlife Warden, Andhra Pradesh, Hyderabad Letter Rc.No.34483/WL-3, dt.15.5.2007.

ORDER:

In the G.O. 1st read above, Andhra Pradesh State Biodiversity Board has been constituted under section 22 of the Biological Diversity Act, 2002; (Central Act No.18 of 2003).

2. In the letter 2nd read above, the Principal Chief Conservator of Forests (WL) & Chief Wildlife Warden, Andhra Pradesh, Hyderabad; has furnished proposals for framing of Biodiversity Rules, under section 63 (1) of the Biological Diversity Act, 2002 (Central Act No.18 of 2003) for implementing and carrying out the purposes of the said Act based on the Biodiversity Rules, 2004 notified by the Government of India.

3. The following notification shall be published in the Extra-ordinary issue of the Andhra Pradesh Gazette, dt.24.08.2009.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

JANAKI R. KONDAPI,

SPECIAL CHIEF SECRETARY TO GOVERNMENT.

To

The Commissioner, Printing, Stationary & Stores Purchase

(Printing Wing), Andhra Pradesh, Hyderabad. (w.e.)

(with a request to publish in the A.P. Extra-ordinary Gazette and furnish 100 copies to Government).

The Principal Chief Conservator of Forests,
Andhra Pradesh, Hyderabad. (w.e.)

The Principal Chief Conservator of Forests (WL) &
Chief Wildlife Warden, Andhra Pradesh, Hyderabad. (w.e.)

Copy to Ministry of Environment & Forests, Government of India,
Paryavaran Bhawan, C.G.O. Complex, Lodhi Road,

New Delhi – 110 003. (w.e.)

Copy to the Member Secretary, National Biodiversity Authority,
475, 9th South Cross Street, Neelankarai, Chennai – 600041. (w.e.)

Copy to PS to Special Chief Secretary / Special Secretary.

Copy to Law (B) Department.

Copy to SF / SC.

// FORWARDED :: BY ORDER //

SECTION OFFICER

2

NOTIFICATION

In exercise of the powers conferred by sub section (1) of Section 63 of the Biological Diversity Act, 2002 (Central Act No. 18 of 2003), read with the Biological Diversity Rules, 2004 issued in GSR 261 (E), Ministry of Environment and Forests, New Delhi, dated 15 April, 2004, the Government of Andhra Pradesh hereby makes the following rules, namely:-

1. Short title and commencement:

- (1) These Rules may be called "Andhra Pradesh Biological Diversity Rules", 2009.
- (2) These rules shall extend to the whole of the State of Andhra Pradesh
- (3) These rules shall come into force from the date of publication in the "Andhra Pradesh Gazette".

2. Definitions:

In these Rules, unless the context otherwise requires-

- (a) "Act" means the Biological Diversity Act, 2002 (Central Act No.18 of 2003)
- (b) "Authority" means the National Biodiversity Authority
- (c) "Board" means the Andhra Pradesh State Biodiversity Board established under sub-section (1) of section 22 of the Act;
- (d) "Committee" means Biodiversity Management Committee constituted by the local bodies under sub section (I) of section 41 of the Act;
- (e) "Chairperson" means the Chairperson of the State Biodiversity Board;
- (f) "Fee" means any fee stipulated under these Rules;
- (g) "Form" means form appended to these Rules;
- (h) "State Government" means the Government of Andhra Pradesh;
- (i) "Member" means member of the State Biodiversity Board, and includes the chairperson;
- (j) "Section" means section of the Act;
- (k) "Member Secretary" means the Member Secretary of the Andhra Pradesh State Biodiversity Board;
- (l) Words and expressions used but not defined in these Rules and defined in the Act shall have the same meaning respectively assigned to them in the Act.

3. Manner of selection and appointment of the Chairperson

- (1) The Chairperson of the Board shall be an eminent person having adequate knowledge and experience in the conservation and sustainable use of biodiversity and in matters relating to the equitable sharing of the benefits.
- (2) The Chairperson of the Board shall be appointed by the State Government.

(3) Every appointment of Chairperson in terms of Clause (a) of sub-section (4) of section 22 of the Act shall be made either on deputation basis or by selection from outside the State Government.

(4) The appointment under sub-rule (3) shall be done on the recommendation of a three member Search Committee constituted for the purpose headed by the Chief Secretary, provided that in case of a serving officer of the State Government, he shall not be of a rank below that of a Principal Secretary to the Government.

4. Term of Office of the Chairperson

(1) The Chairperson of the Board shall hold the office for a term of three years from the date of assumption of office and shall be eligible for reappointment provided that no Chairperson shall hold office beyond the age of 65 years.

(2) The Chairperson may resign from his office by giving at least one month notice in writing to the State Government.

(3) Notwithstanding any other provision of these Rules, continuance of the Chairperson in the office shall be at the pleasure of the State Government.

5. Pay and Allowances of the Chairperson:

The Chairperson shall be entitled to such salary, allowances, leave, pension, provident fund, accommodation and other perquisites, as may be determined by the State Government from time to time.

6. Nomination, Term of office and Allowances of Expert (Non-official) member:

(1) Five non-official members from amongst the experts in matters relating to conservation of biological diversity, sustainable use of biological resources and equitable sharing of benefits arising out of the use of biological resources shall be nominated by the State Government.

(2) The non-official member of the Board shall hold the office for a term not exceeding three years at a time from the date of his nomination.

(3) The non-official member shall be entitled to traveling expenses, daily allowance and to such other allowances, as may be fixed by the State Government for attending the meeting(s) of the Board.

7. Filling up of vacancies of Expert member:

(1) An Expert member of the Board may resign from his office at any time by giving in writing under his hand addressed to the State Government and the seat of that member in the Board shall become vacant.

(2) A casual vacancy in the Board shall be filled up by a fresh nomination and the person nominated to fill the vacancy shall hold office only for the remainder of the term of the member, in whose place he was nominated.

8. Removal of the Members of the Board: No member of the Board shall be removed from the office on any ground specified in section-11 of the Act, Without due and proper enquiry by an officer not below the rank of Principal Secretary

appointed by the State Government for the purpose and without giving a reasonable opportunity to the member of being heard.

9. Head Office of the Board:

The Head Office of the Board shall be at Hyderabad

10. Member Secretary of the Board:

(1) The Member Secretary shall be appointed by the State Government on deputation. His terms and conditions of appointment shall be determined by the State Government.

(2) The Member Secretary shall be responsible for day to day administration of the Board, management of funds and implementation of various activities of the programme under the guidance of the Chairperson of the Board.

(3) All orders or instructions to be issued by the Board shall be under signature of the Member Secretary or of any other officer authorized in this behalf by the Board

(4) The Member Secretary either himself or through an officer authorized for the purpose may sanction and disburse all payments against the approved budget.

(5) The Member-Secretary shall have powers to give administrative sanctions to the estimates included in the budget of the Board.

(6) The Member-Secretary shall be in charge of all the confidential papers of the Board and shall be responsible for their safe custody. He shall produce such papers whenever so directed by the Board/State Government.

(7) The Member-Secretary shall write and maintain confidential reports of all the officers and staff of the Board and shall get them countersigned by the Chairperson.

(8) The Member-Secretary shall exercise such other powers and perform such other function, as may be delegated to him from time to time by the Board.

11. Meetings of the Board:

(1) The Board shall meet at least four times in a year not less than once in three months at the Head quarters of the Board or at such other place, as may be decided by the Chairperson.

(2) The Chairperson shall, upon a written request from not less than five members of the Board or upon a direction of the State Government, call for a special meeting of the Board.

(3) Fifteen days notice of an ordinary meeting and three days notice of a special meeting specifying the purpose, the time and the place, at which such meeting is to be held, shall be given to the members.

(4) Every meeting shall be presided over by the chairperson and in his absence, by a presiding officer to be elected by the members present from amongst themselves.

(5) The decision of the Board shall, if necessary, be taken by a simple majority of the members present and voting and the Chairperson or in his absence the member presiding shall have a second or casting vote.

(6) Each member shall have one vote.

(7) Quorum for the meeting of the Board shall be five.

(8) No member shall be entitled to bring forward for the consideration of a meeting any matter of which he has not given ten days notice unless the chairperson in his discretion permits him to do so.

(9) Notice of the meeting may be given to the member by delivering the same by messenger or sending it by registered post to his last known place of residence or business or in such other manner, as the Member Secretary of the Board may, in the circumstances of the case, think fit.

(10) In addition, the Board may evolve such other procedure for the transaction of this business as it may deem fit and proper.

12. Appointment of Expert Committee by the Board and their Entitlements:

(1) The Board may constitute any number of committees for such purposes as it may deem fit consisting wholly of members or wholly of other persons or partly of members or partly of other persons.

(2) The members of the expert committee other than the members of the Board shall be paid such fees and allowances for attending the meetings, as the Board may deem fit.

(3) The Board may invite any person, whose assistance or advice is considered useful to obtain in performing any of its functions, and to participate in the deliberations of any of its meetings. Such person associated with the Board shall be entitled to get allowances, as prescribed by the Board from time to time.

13. General functions of the Board:

In particular and without prejudice to the generality of other provisions, the Board may perform the following functions:-

(i) Lay down the procedure and guidelines to govern the functions provided under section 23 of the Act.

(ii) Advise the State Government on any matter concerning conservation of bio-diversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the use of biological resource and knowledge.

(iii) Provide technical assistance and guidance to the departments of the State Government

(iv) Regulate by granting of approvals or otherwise requests for commercial utilization or bio-survey and bio-utilization of any biological resource by Indian Nationals.

(v) Facilitate updating and implementation of State Bio-diversity Conservation Strategy and Action Plan.

(vi) Commission studies and sponsor investigations and research.

(vii) Collect, compile and publish technical and statistical data, manuals, codes or guides relating to conservation of Biological bio-diversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the use of biological resource and knowledge.

(viii) Organize through mass media a comprehensive programme regarding conservation of biological diversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the use of biological resource and knowledge.

(ix) Plan and organize training of personnel engaged or likely to be engaged in programmes for the conservation of biological biodiversity and sustainable use of its components.

(x) Take steps to build up database and to create information and documentation system for biological resources and associated traditional knowledge through bio-diversity registers and electronics data bases, to ensure effective management, promotion and sustainable uses.

(xi) Give directions to the Bio-diversity Management Committees in writing and through appropriate oral means, for effective implementation of the Act, and to facilitate their meaningful participation in all measures relating to conservation, sustainable use, and equitable benefit-sharing.

(xii) Report to the State Government about the functioning of the Board and implementation of the Act and the Rules made there under.

(xiii) Recommend, prescribe, modify, collect fee of biological resources from time to time.

(xiv) To devise methods to ensure protection of rights including intellectual property rights over biological resources and associated knowledge including systems of maintaining confidentiality of such information as appropriate, including system of maintaining confidentiality of such information as appropriate, including the protection of the information recorded in People's Biodiversity Registers.

(xv) Sanction grants-in-aid and grants to Bio-diversity Management Committees for specific purposes.

(xvi) Undertake physical inspection of any area in connection with the implementation of the Act.

(xvii) Ensure that biodiversity conservation and biodiversity dependent livelihoods are integrated into all sectors of planning and management, and at all levels of planning from local to state, to enable such sectors and administrative levels to contribute effectively for conservation and sustainable use.

(xviii) Prepare the annual Budget of the Board incorporating its own receipts as also the devaluation from the State and Central Government provided that the allocation by the Central Government shall be operated in accordance with the budget provisions approved by State Government.

(xix) Board shall have full powers for granting administrative and technical sanctions to all the estimates. It may however delegate such administrative and technical sanction powers to the Member secretary of the Board, as may be deemed necessary.

(xx) Recommend creation of posts to State Government, for effective discharge of the functions by the Board and to create such posts, provided that no such post whether permanent/ temporary or of any nature, would be created without prior approval of the State Government.

(xxi) Perform such other functions, as may be necessary to carry out the provisions of the Act or as may be prescribed by the State Government from time to time.

(xxii) Shall have power to acquire, hold and dispose of property, both movable and immovable and enter into contract for the same.

14. Powers and Duties of the Chairperson:

- (a) The Chairperson shall ensure that the affairs of the Board are run efficiently and in accordance with the provisions of the Act and the rules made there under.
- (b) The Chairperson shall have the powers of general superintendence over the officers and staff of the Board and the Chairperson may issue necessary directions for the conduct and management of affairs of the Board.
- (c) The Chairperson shall convene and preside over all the meetings of the Board and shall ensure that all decisions taken by the Board are implemented in proper manner.
- (d) The Chairperson shall exercise such other powers and perform such other functions as may be delegated to him from time to time by the Board.

15. Terms and Condition of Service of employees of the Board:-

- (1) The terms and conditions of the employees of the Board shall be same as those of employees with corresponding scale of pay under the state Government, the appointment in general shall be on contractual basis or on deputation, unless otherwise decided by the state Government.
- (2) The board shall approve the method of recruitment/promotion to the posts in the Board.

16. Procedure for access to/ collection of biological resources:-

- (1) Any person seeking access to/ collection of biological resources and associated knowledge for research or for commercial utilization shall make an application to the Board in Form -1 appended to these rules. Every application shall be accompanied by a fee of Rs.1000/- in case such access is for research purpose and Rs.10,000/- for commercial utilization, and shall be in the form of a cheque or demand draft.
- (2) The Board after due appraisal of the application and after consultation with the concerned Biodiversity Management Committee and after collection of such additional information, as it may deem necessary shall decide on the application, as far as possible within a period of 3 months in receipt of the same. In this context, the word "consult", for the purpose of the act, includes the following steps, inter alia: (a) issuing of public notice, in local language, of the proposal for access/collection: (b) discussion/dialogue with the general assembly of the proposal and its implications for conservation and livelihoods.
- (3) On being satisfied with the merit of the application, the Board may grant approval for access to biological resources and associated knowledge, subject to such terms & conditions as it may deem fit to impose.
- (4) A written agreement duly signed by an authorized officer of the Board and the applicant shall govern the access / collection. The form of the agreement shall be decided by the Board.
- (5) The conditions for access to / collection may specifically provide measures for conservation and protection of biological resources to which the access to / collection is being granted.

(6) The Board may reject the application if it considers that the request cannot be acceded to after recording the reasons therefore. Before passing an order of rejection, the applicant shall be given a reasonable opportunity of being heard.

(7) Any information given in the form referred to in the sub- rule (1) for prior intimation shall be kept confidential and shall not be disclosed, either intentionally or unintentionally, to any person not concerned thereto.

17. Revocation of access/approval.-

(1) The Board may either suo moto or on the basis of any complaint withdraw the access granted and revoke the written agreement under the following conditions:-

(i) On the basis of reasonable belief that the person accessing the said bio-resource has violated any of the provisions of the Act or the condition on which application was allowed;

(ii) When the person has failed to comply with the terms of agreement;

(iii) On failure to comply with any of the conditions of access;

(iv) On account of overriding public interest with reference to protection of environment and conservation of biological diversity, and protection of the rights, livelihoods, and knowledge of local communities.

(2) The revocation order shall be made only after making such inquiries as required and after giving the person so affected an opportunity of being heard.

(3) The Board shall send a copy of such revocation order to the Biodiversity Management Committees for prohibiting the access and also to assess the damage, if any, caused and take steps to recover the damage.

18. Restriction on activities related to access to biological resources:-

1. The Board, if it deems necessary and appropriate, shall take the steps to restrict or prohibit the proposal for access to biological resources for the following reasons:-

(i) The request for access is for any threatened taxa, or taxa that are likely to become threatened due to such access;

(ii) The request for access is for any endemic and rare species;

(iii) The request for access may likely to result in adverse effect on the livelihoods, culture, or indigenous knowledge of the local people;

(iv) The request for access may cause genetic erosion or affecting the ecosystem function;

(v) Use of resources for purpose contrary to national interest and other related international agreements entered into by the country.

2. Any order of restriction shall be made only after making such inquiries as required; consulting the concerned local bodies and Biodiversity Management Committee, and giving the person so affected an opportunity of being heard.

19. Operation of State Bio-diversity Fund:-

(1) The State Bio-diversity Funds shall be operated by the Member- Secretary of the Board or by such any other officer of the Board as may be authorized by the Board in this behalf.

(2) The "State Bio-diversity Fund" shall have two separate heads of accounts, one relating to the receipts (grants and loans) from the Central Government/National Bio-diversity Authority and state Government, including receipts from such sources as decided by the Board and the other head of account concerning the fee, licence fee, royalty and other receipts of the Board.

(3) The State Government, shall after due appropriation made by the State legislature by the law in this behalf, pay to the Board such sum of money, as the State Government may think fit for being utilized for the purpose of the Act.

(4) The Board shall frame guidelines of ways to ensure that decisions regarding the management and use of the Fund are transparent and accountable to the public.

20. Annual Report and Annual Statement of Accounts:-

(1) The Board shall prepare its annual report for each financial year giving detailed account of its activities and annual statement of accounts and submit the same to the State Government.

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(3) The Board shall submit the Annual Report together with the audited statement of accounts for each financial year to the State Government by September each year so as to enable the State Government to lay the reports before the Legislative Assembly.

21. Establishment and Management of Bio -diversity Heritage Sites:-

(1) The Board shall, in consultation with the local bodies and other key stakeholders, take necessary steps to facilitate setting up of areas of significant bio-diversity values as Heritage Sites. Following recommendation from the Board and after consultation with the Central Government, the State Government shall issue notification to this effect.

(2) The Board shall frame guidelines on the selection, management and other aspects of Heritage Sites, ensuring that these provide decision –making role for relevant Biodiversity management Committees.

22. Constitution of Biodiversity Management Committees:-

(1) Every local body shall constitute a Biodiversity Management Committee within its area of jurisdiction. Accordingly, Biodiversity Management Committees are to be constituted at Zilla Parishad, Mandal Parishad and Gram Panchayat level as well as at Municipality and Municipal Corporation level.

(2) The Biodiversity Management Committees constituted under subrule (1) shall have seven persons nominated who should be drawn from amongst the local naturalists, herbalists, agriculturist, Non Timber Forest Produce collectors/traders, fisher-folk, representative of user associations, community workers, academicians, Vana Samrakshana Samithies (VSS) and any person/representative of organization, on whom the local body trusts that he can significantly contribute to the mandate of the Biodiversity Management Committee. The Proportion of members belonging to

the Scheduled Caste and the Scheduled Tribe should not be less than Scheduled Caste/ Scheduled Tribe Percentage of the Dist, where such a committee is set up. All the above should be residents within the said local body limits and be in the voters list.

(3) The local body shall nominate six special invitees one each from forest, agriculture, livestock, health, fisheries and education department.

(4) The chairperson of the local body shall be Ex-officio Chairman of the Biodiversity Management Committee and will have a tenure as long as he continues as Chairperson of the local body.

(5) The member-secretary of the Biodiversity Management Committee shall be chosen from amongst the nominated members by the committee.

(6) The local Member of the Legislative Assembly and Member of Parliament would be special invitees to the meetings of the Biodiversity Management Committees at different levels.

(7) A technical support group comprising of experts in the field of biodiversity drawn from Government agencies, Non Government Organizations, academic field, community and individuals shall be established by district administration. The expert group shall lend support to Biodiversity Management Committees.

(8) The key mandate of the Biodiversity Management Committees will be to ensure conservation, sustainable utilization and equitable sharing of benefits from the biodiversity .The Biodiversity Management Committees shall facilitate preparation of People's Biodiversity Registers. The Registers shall contain comprehensive information on availability and knowledge of local biological resources, their medical or any other use or any other traditional knowledge associated with them. The Zilla Parishad level Biodiversity Management Committee shall be responsible for developing a district wide network of People's Biodiversity Register database. The People's Biodiversity Registers shall be prepared at the Gram Panchayat/ Mandal Parishad Municipality / Municipal Corporation level by the respective Biodiversity Management Committee by using the process and the format set by the Board.

The Biodiversity Management Committees will be responsible for ensuring the protection of the knowledge recorded in the people's Biodiversity Registers, especially to regulate its access to outside agencies and individuals.

(9) The other functions of the Biodiversity Management Committees are to advise on any matter referred to it by the State Biodiversity Board or Authority for granting approval, to maintain data about the local aids and practitioners using the biological resources.

(10) The Zilla and Mandal Biodiversity Management Committees shall strive to mainstream biodiversity conservation concerns in the developmental planning at the level.

(11) The Board shall provide guidance and technical support to the Biodiversity Management Committees for preparing People's Biodiversity Register, and shall ensure that all information recorded in such Register receives legal Protection against misuse and appropriation by outside agencies and individuals.

(12) The Committee shall also maintain a Register giving information about the details of the access to biological resources and traditional knowledge granted, details of the collection fee imposed and details of the benefits derived and the mode of their sharing.

(13) The Biodiversity Management Committee at Gram Panchayat / Mandal Parishad Municipality / Municipal Corporation level may decide the terms on which it would permit access to biodiversity resources and associated knowledge to different parties for various purpose within their jurisdiction and levy charges by way of collection of fees from any person for accessing or collecting any biological resource for commercial purpose from the area falling within its jurisdiction. The major share of levy charged for the material collected / cultivated from private land should be given to the owner/cultivator of the land/knowledge holder/s and the balance should be deposited in local Biodiversity Fund of Biodiversity Management Committee. The levy charged for the material collected/ cultivated from Government land should be totally deposited in Local Biodiversity Funds of Biodiversity Management Committee.

(14) The board shall provide guidelines for terms of access and fee collection by the Biodiversity Management Committees.

(15) The Gram Panchayat/ Municipality /Municipal Corporation level Biodiversity Management Committees shall prepare a Biodiversity Management Plan using output from People's Biodiversity Register and will be responsible for or participate in its implementation.

(16) The local bodies shall ensure that the Biodiversity Management Committees are integrated with the functioning of existing local institutions by regular coordination meetings, and other such measures as determined by the local bodies or as specified by the Board.

23. Local Bio-diversity Fund:-

(1) At the level of local body, the local bio-diversity fund shall be constituted.

(2) The Board shall provide to the local body any loan or grant received by it from State Government, Central Government or from the Authority for the purpose of the Act. The local body can also access such funds from other sources as it identifies, or as specified by the Board.

(3) The local biodiversity fund shall be operated by the Biodiversity Management Committees. The Board shall lay down the operational guidelines for operation of the fund by the Biodiversity Management Committees, including ways, in which its functioning is transparent and accountable to all members of the relevant local body.

(4) The fund shall be used for the conservation and promotion of biodiversity in the areas falling within the jurisdiction of the concerned local body and for the benefit of the local community in so far such use is consistent with conservation of biodiversity.

(5) The account of the local biodiversity fund shall be prepared in such forms as may be specified by the Board and during each financial year at such time, as may be prescribed.

(6) The Biodiversity Management Committees shall prepare its annual report, giving full account of its activities during the previous financial year, and submit a copy there of to the Board and a copy to the general assembly of the local body.

(7) The accounts of the local bio-diversity fund shall be maintained and audited in such manner, as may be specified by the Board.

24. Appeal for settlement of disputes:-

(1) If a dispute arises between the Authority and Board or between one Board and other Board(s) on account of implementation of any order/direction or on any issue of policy decision, either of the aggrieved parties. i.e., Authority or the Board, as the case may be, prefer an appeal under Section 50 of the Act, in form II appended to these rules to the Secretary, Ministry of Environment and Forests Government of India or to the Chairperson, National Bio-diversity Authority in the case of dispute between one Board and other Board(s).

(2) The memorandum of appeal shall state the facts of the case, the grounds relied upon by the appellant and the relief sought for , for preferring the appeal and shall be accompanied by an authenticated copy of the order, direction or policy decision, as the case may be, by which the appellant is aggrieved. The memorandum of appeal shall be duly signed by the authorized representative of the appellant.

(3) The memorandum of appeal shall be submitted in quadruplicate accompanied with the authenticated copy of the order, directions of policy decisions as the case may be, by which the appellants is aggrieved, either in person or through registered post with acknowledgement due, within 30 days from the date of the order, direction or policy decision .

Provided that if the appellate authority is satisfied that there was good and sufficient reason for the delay in preferring the appeal, the appellate authority, for the reasons to be recorded in writing allow the appeal to be preferred after the expiry of the aforesaid period of 30days but before the expiry of 45 days from the date of the order, direction, or policy decision as the case may be.

(4) The notice for hearing of the appeal shall be given in Form III by a registered post with an acknowledgement due.

(5) Every memorandum of appeal shall be accompanied by a fee of Rs.100/-.

(6) The Board shall similarly lay down the procedure for settlement of disputes between Board and the Biodiversity Management Committees or amongst Biodiversity Management Committees, and between Biodiversity Management Committee and relevant local bodies.

ANAKI R. KONDAPI,
SPECIAL CHIEF SECRETARY TO GOVERNMENT
ENVIRONMENT, FORESTS, SCIENCE &
TECHNOLOGY DEPARTMENT

FORM - 1
(See rule 16 (1))

Application form for access to/ collection of Biological resources for commercial utilization and associate traditional knowledge.

PART.A

1. Full Particulars of the applicant:

(a) Name

(b) Permanent address:

(c) Address of the contact person/ agent, if any, in India:

(d) Profile of the organization (personal profile in case the applicant is an individual). Please attach relevant documents of authentication):

(e) Nature of business:

(f) Turnover of the organization in Indian Rupee.

2. Details and specific information about nature of access sought and biological material and /or associate knowledge to be accessed:-

(a) Identification (scientific name) of biological resources and its traditional use;

(b) Geographical location (including village, Mandal and district) of proposed collection;

(c) Description/nature of traditional knowledge and its existing manifestations and uses (oral /documented)

(d) any identified individual /family /community holding the traditional knowledge;

(e) Quantity of biological resources to be collected;

(f) Time span in which the biological resource are proposed to be collected;

(g) Name and number of person authorized by the company for making the collection;

(h) The purpose for which the access is requested including the type and extent of research ,commercial use being derived and expected to be derived from it;

(i) Whether any collection or use of the resource endangers any component of biological diversity and to risk which may arise from the access.

(3) Details of any national institution which will participate in the Research and Development activities.

(4) Primary destination of accessed resource and identity of the location where the R&D will be carried out.

(5) The economic and other benefits including those arising out of any IPR, patent obtained out of accessed biological resources and knowledge that are intended, or may accrue to the applicant or to the country that he/she belongs.

(6) The biotechnological, scientific, social or any other benefits obtained out of accessed biological resources and knowledge that are intended, or may accrue to the applicant or to the country that he/she belongs.

(7) Estimation of benefits that would flow to communities arising out of the use of accessed bio-resources at traditional knowledge.

(8) Proposed mechanism and arrangements for benefit sharing.

(9) Any other information.

Place: Signature of the applicant

Date: Name:

Title:

PART-B
Declaration

I/we declare that:

- (1) Collection of proposed biological resources shall not adversely affect the sustainability of the resources.
- (2) Collection of proposed biological resources shall not entail any environmental impact;
- (3) Collection of proposed biological resources shall not pose any risk to ecosystems;
- (4) Collection of proposed biological resources shall not adversely affect the local communities

I/we further declare the information provided in the application form is true and correct and I/We shall be responsible for any incorrect/wrong information.

Signed.....

Name.....

Title.....

Place:.....

Date:.....

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FORM - II

Form of Memorandum of Appeal

(See Rule .24 (1))

BEFORE THE SECRETARY, MINISTRY OF ENVIRONMENT AND
FORESTS, GOVERNMENT OF INDIA, NEW DELHI

OR

CHAIRPERSON, NATIONAL BIODIVERSITY AUTHORITY

(as the case may be)

(Memorandum of appeal under Section 50 of the Biological Diversity Act,
2002)

Appeal No _____ of 200

.....Appellant(s)

Vs

.....Respondent(s)

(here mention the designation of the Authority/Board, as the case may be)

The appellant begs to prefer this Memorandum of Appeal
against the order dated _____ passed by the Respondent on the
following facts and grounds.

- 1. FACTS.- (Here briefly mention the facts of the case):
- 2. GROUNDS- (Here mention the grounds on which the appeal is made):
 - (i)
 - (ii)

(iii)

3. RELIEF SOUGHT:

(i)

(ii)

(iii)

4. PRAYER- (a) In the light of what is stated above, the appellant respectfully prays that the order/decision of the respondent be quashed/ set –aside.

(b) The policy/guidelines /rules regulations framed by the Respondent be quashed /modified/ annulled to the

extent_____

(c)

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5. the amount of Rs._____ (Rupees

_____) as fee for this appeal has

been paid to _____ vide order No. _____

dated _____

Signature of the appellant

With Seal Address.

Place:- _____

Dated: _____

VERIFICATION

1. The appellant do hereby declare that what is stated above is true to the best of my information and belief.

Verified on _____ day of _____

Signature of the appellant With Seal Address.

Signature of the Authorized representative of the appellant.

Enclosures:- Authenticated copy of the order, direction or policy decision, against which the appeal has been preferred.

FORM - III

(See Rules 24 (4))

By Registered Post/Acknowledgement due
Before the Secretary, Ministry of Environment and Forests,
Government of India, New Delhi

OR

Before the Chairperson, National biodiversity Authority
(as the case may be)

Appeal No.....of 200.....

Between

: Appellant(s)

Vs

: Respondent (s)

To,

NOTICE

Please take the notice that the above appeal filed by the appellant, against the order/ direction /policy decision (Give details) is fixed for hearing on _____at

The copies of the Memorandum of appeal and other annexure filed along with the appeal are sent herewith for your reference.

Please note that if you fail to appear on the said date or other subsequent date of hearing of the appeal, the appeal would be disposed of finally by placing you ex-parte.

Authorized signatory on behalf of the Appellate Authority

(Seal)

Place:_____

Dated:_____

Annexure-XII

Gazettee notification on Orissa's flora & fauna on the verge of extinction

New Delhi, the 30th September, 2009

S.O. 2525 (E)- In exercise of the powers conferred by Section 38 of the Biological Diversity Act, 2002 (18 of 2003), the Central Government, in consultation with the Government of Orissa, hereby notifies the species of plants and animals which are on the verge of extinction, as listed in column (2) of the Table below, for the State of Orissa. Namely :-

Table

Sl. No.	Name of the Species
(1)	(2)

Plants

1. Lasiococca comberi Haines

Animals

1. Platinesta gangetica (Roxburgh, 1801)
2. Panthera tigris tigris, Linnaeus, 1758
3. Gyps bengalensis (Gmelin, 1788)
4. Gyps tenuirostris Gray, 1844
5. Heteroglaux blewitti (Hume, 1873)
6. Rhinoptilus biorquartus (Blyth, 1848)
7. Batagur baska (Gray, 1831)
8. Dermochelys coriacea (Vandelli, 1761)
9. Eretmochelys imbricate (Linnaeus, 1766)
10. Kachuga kachuga (Gray, 1831)
11. Glyphis gangeticus (Muller & Henle, 1831)
12. Pristis microdon Latham, 1794
13. Pristis zijsron Bleeker, 1851

2. The collections of the species of plants and animals listed in column (2) of the Table shall be prohibited except with the approval of the Orissa State Biodiversity Board only for the purposes mentioned below, namely:-

- a) Scientific research;
- b) herbarium and museum of scientific and academic institutions;
- c) Propagation; and
- d) any other scientific investigation.

3. The Orissa State Biodiversity Board shall undertake-

- i) studies on all aspects of the notified species for holistic understanding;
- ii) Propagation of the notified species for the purpose of in situ and ex situ conservation and rehabilitation; and
- iii) awareness programmes and provide educational materials on notified species for forest department personnel, Biodiversity Management Committees, ecotourism programmes, and forest dwellers and tribals.

Annexure-XIII

Gazettee notification on the flora & fauna on the verge of extinction in Madhya Pradesh

New Delhi, the 7th June 2010

S.O. 1329 (E)- In exercise of the powers conferred by Section 38 of the Biological Diversity Act, 2002 (18 of 2003), the Central Government, in consultation with the Government of Madhya Pradesh, hereby notifies the species of plants and animals which are on the verge of extinction, as listed in column (2) of the Table below, for the State of Madhya Pradesh. namely :-

Table

Sl. No.	Name of the Plants
(1)	(2)
1.	<i>Alsophila balakrishnaji</i> (R.D. Dixit and Triphati) R.D. Dixit
2.	<i>Ficus cupulata</i> Haines
3.	<i>Jasminum brevipetiolatum</i> Duthie ex Brandis

Name of Animals

1. *Panthera lea persica* (Meyer)
2. *Plantinesta gangetica* (Roxburgh, 1801)
3. *Panthera tigris tigris*, Linnaeus, 1758
4. *Gyps bengalensis* (Gmelin, 1788)
5. *Gyps indicus* (Scopoli, 1786)
6. *Hateroglax blewitti* (Hume, 1873)
7. *Rhinoptilus bitorquatus* (Blyth, 1848)
8. *Rhodonessa caryophyllacea* (Latham, 1790)
9. *Gavialis gangeticus* (Gmelin, 1789)
10. *Philantus sanctisilvaticus* (Das and Chanda, 1997)

2. The collection of the species of plants and animals listed in column (2) of the Table shall be prohibited, except with the approval of the Madhya Pradesh State Biodiversity Board only for the purposes mentioned below, namely:-

- a) Scientific research;
- b) herbarium and museum of scientific and academic institutions;
- c) propagation; and
- d) any other scientific investigation

3. The Madhya Pradesh State Biodiversity Board shall undertake:-

- i) studies on all aspects of the notified species for holistic understanding;
- ii) Propagation of the notified species for the purpose of in situ and ex situ conservation and rehabilitation; and
- iii) awareness programmes and provide educational materials on notified species for forest department personnel. Biodiversity Management Committees, ecotourism programmes, and forest dwellers and tribals.