

## Concern for Bio-diversity with Reference to Rio and India

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### Introduction

The Earth Summit at Rio De Janero in 1992 was one of the largest meetings of the nations to save the global environment. There was consensus among the nations on protecting and conserving the environment by committing to check the loss of biodiversity, deforestation, climate change, technology transfer, population, finance etc. In the last ten years the progress in the above area has not been very encouraging. In India also biodiversity is in peril. The Govt. of India has formulated some strategies and action plans to preserve biodiversity. There is an urgent need to seriously concentrate and vigorously execute the action plans. The goal of achieving sustainable development in relation to biodiversity has remained a rhetoric so far.

### Scope of the Paper

The paper deals with the agreement signed by 161 nations at the Earth Summit at RioDe-Janero in 1992. The theme of the agreement was the biodiversity hence called 'Convention on Biological Diversity' (CBD). The paper also discusses about the provisions of CBD in relation to the "Trade Related aspects of the Intellectual Property Rights" (TRIPs) and finds some contradictions in them. The paper takes a stockview of the status of biodiversity in India and imminent challenges. The progress in the direction of

the implementetion of CBD. strategies and action plans in India have also been examined.

### Biodiversity and Rio Earth Summit

The agreement on protecting the biodiversity was signed by 161 countries at Rio De Janero during Earth Summit in 1992. The agreement called as Convention on Biological Diversity (CBD) came into force in 1993. The CBD has three main objectives (Balakrishna, 1999)

- Conservation of biodiversity
- Sustainable use of biodiversity
- Fair and equitable sharing of the benefits from such use

The convention for the first time recognizes that the conservation of biological diversity is a common concern of mankind as well as an integral part of the development process. The agreement covers all ecosystems, species and genetic resources. It links traditional conservation efforts to the economic goal of using biological resources in a sustainable way. It sets principles for the fair and equitable sharing of the benefits arising from the use of genetic resources, notably those destined for commercial use. It also covers the rapidly expanding field of biotechnology, addressing technology development and transfer, benefit-sharing and biosafety. Importantly, the Convention is legally bind-

ing; countries that join it are obliged to implement its provisions. The Convention emphasizes the judicious use of the resources and lays down the basis for sustainable development. While past conservation efforts were aimed at protecting particular species and habitats, the Convention recognizes that ecosystems, species and genes must be used for the benefit of human beings.

The Convention also offers guidance to decision-makers based on the precautionary principles; where there is a threat of significant reduction or loss of biological diversity, the Convention acknowledges that substantial investments are required to conserve biological diversity. The conservation will bring us significant environmental, economic and social benefits in return.

**Some of the many issues dealt with under the Convention include:**

- Measures and incentives for the conservation and sustainable use of biological diversity.
- Regulated access to genetic resources.
- Access to and transfer of technology, including biotechnology.
- Technical and scientific cooperation.
- Impact assessment.
- Education and public awareness.
- Provision of financial resources.
- National reporting on efforts to implement treaty commitments ([www.biodiv.org](http://www.biodiv.org)).

The CBD calls for inter institutional cooperation and builds a synergy between environment and development. The global

biodiversity resources are endangered and are increasingly being threatened by human activities and encroachment (WRI 1992). A judicious use of the natural resources and provisions for replenishment of the genetic resources would help in protecting the valuable resources.

**Biodiversity and the Trade Related Intellectual Property Rights**

The integral part of the CBD is equitable sharing of benefits. The objectives of the CBD are in conflict with Trade Related Aspect of Intellectual Property Rights (TRIP). The patent rights of the TRIPS gives exclusive rights to the patent holder to sell its product. The multi nationals which hold patent to technology are reluctant to share the technology. The patent also recognizes only the inventions done by institutions and has no recognition to the community and indigenous knowledge of the local people and benefit sharing. The convention emphasizes equitable sharing of the benefits. The multi national companies which invest in research and development are reluctant to share with developing countries which rightly own the biotic products. Another conflict is the community property right which is practiced by local and indigenous communities.

TRIPS also makes mandatory for the nations to develop a sui generis . India has its draft bill called 'Plant Variety Protection and Farmer's Right Act.' The bill gives rights to farmer to use his own seed in situ but restricts the commercial use of the genetic resources. India has drafted the PVPFR Bill and the same is being debated in the state legislative assemblies. It addresses the key concerns of the farmers. The farmer is entitled to "save, use, sow, resow, exchange,

share or sell" his farm product including seeds of the seeds of protected variety (Sharma 2000). The farmer's rights are also protected by giving rights to have full information on expected performance of the seeds from breeder. If the plant fails to deliver the results as promised by breeder, farmer is entitled to compensation.

The PVPFR Bill also provides for rewarding the farmer for his innovations, conservation and preservation of genetic resource. The provision duly recognizes farmer's age old efforts in preserving and protecting the genetic resources of the country. In India the farmer is also the breeder and hence his efforts need to be acknowledged. The PVPFR Bill is under approval and after becoming an Act, it will provide much awaited relief to the farmers.

### **Status of the Biodiversity in India**

India has rich biodiversity resources. Biodiversity of Indian contributes 8 per cent of the known global biological diversity. It is one of the twelve mega biodiversity centers in the world. Currently available data place India at the tenth position in the world and fourth in Asia in plant diversity. In terms of number of mammalian species, the country ranks tenth in the world and in terms of the endemic species of higher vertebrates, it ranks eleventh. It stands seventh in the world for the number of species contributed to agriculture and animal husbandry (Botanical Survey of India 1983). The rich bio and zoo life forms are used for development of medicines, food, textile, energy and therefore are precious assets to the nation.

### **Threats to Biodiversity**

The biodiversity of wetland, grassland, desert, marine regions is threatened by human interventions. The relentless exploitation of the forests for food, fuel and excavation of mineral resources have destroyed the forest areas leading to large scale extinction of plants and animals. According to an estimate, over 1500 plant species, about 79 mammals, 44 birds, 15 reptiles, 3 amphibians and several insects are listed as endangered. Such a biological impoverishment of the country is a serious threat to sustainable advances in medicine, genetic engineering and bio sciences.

### **Biodiversity Protection in India**

The efforts to protect the biodiversity have been taking place much before the ratification of CBD at Rio. After Independence in 1947 India declared many endangered ecosystems as national parks such as Gir, Bandipur, Dachigam, Keoladeo, Ranathambore etc. India adopted the National Policy for Wildlife Conservation in 1970 and enacted the Wildlife Protection Act 1972.

The loss of biodiversity is being addressed by appropriate mapping and surveys, through network of protected areas consisting of 85 national parks, 448 wildlife sanctuaries, 10 biosphere reserves and specific programmes for management and conservation of fragile ecosystems. Approximately, 4.2 percent of the total geographical area of the country has been so earmarked for extensive in situ conservation of habitats and ecosystems. Besides, ex situ conservation is also being undertaken through a network of 70 botanical gardens and 275 centers of wildlife preservation in

the form of zoos, deer, parks, safari parks, aquaria etc.

### **CBD Implementation in India**

In conformity with the CBD, India has its own The Biodiversity Act. This Act will look after the conservation of biodiversity, TRIP, traditional knowledge, benefit sharing. The Act has provisions for respecting and protecting the knowledge of local people through knowledge at local, state and national level. The Act also suggests the establishment of biodiversity funds at state level and creation of biodiversity heritage sites. These sites will be selected in consultation with State Governments.

India has also worked out the sui generis system for protection of the plant variety. The bill provides adequate protection to farmer's right to sow and reuse the seeds. The process to protect the biodiversity has begun but actions need to be geared up. The protection of the biodiversity must call upon the involvement of the local residents. They should be involved in decision making, micro level policies in cooperation with Non-Government Organizations (NGOs).

The implementation of the CBD alone will not help in due protection of the endangered resources. Following actions for managing and conserving the biodiversity need to be taken care of

#### ***1. Management of Bio-Regions***

A bio-region comprises of a larger biological region encompassing one or whole nested ecosystem. An integrated approach to the ecosystems by building capacity of the local residents is necessary to rationalize the utility of the resources. With skill,

knowledge and aptitude it becomes easier to implement the policies. Stakeholders range from individuals and organizations traditionally involved in biodiversity conservation to private land owners, farmers, foresters, tour operators, indigenous communities, municipalities, corporations, state agencies and even future generations. To foster stakeholders participation, policy-makers should identify all the stakeholders, their concerns, interests and perspectives. A wide participation can be fostered by providing stakeholders with incentives for their involvement and commitment for bio regional programmes.

#### ***2. Integrating Conservation and Development***

Economic development is essential to meet human needs and eliminate the poverty that affects a sizeable number of people in the world. The sustainable use of Nature is essential for the long-term success of development strategies. A major challenge is to make the conservation and sustainable use of biodiversity an obligatory yardstick for development policies, business decisions and consumer appetites.

#### ***3. Information, Education and Training***

The transition to sustainable development requires a shift in public attitudes as to what is an acceptable use of Nature. This can only happen if people have the right information, skills and organizations for understanding and dealing with biodiversity issues. Governments and the business community need to invest in staff and training, to support organizations including scientific bodies which can deal with and advise on biodiversity issues. There is also a need for a long-

term process of public education to bring about changes in public behavior, lifestyles and to prepare societies for the changes required for sustainability. Better biodiversity education would meet one of the goals set out in the Convention.

#### **4. Involvement of NGOs and Intergovernmental Organizations**

Finally, the ultimate decision-maker for biodiversity is an individual citizen. The small choices that individuals make add up to a large impact. It is personal consumption that drives development, which in turn uses and pollutes Nature. By carefully choosing the products they buy and the government policies they support, the general public can begin to steer the world towards sustainable development. Governments and non-governmental organizations have responsibilities to lead and inform the public but finally it is individual choices, made billions of times a day that count the most.

#### **National Biodiversity Strategy and Action Plans (NBSAP)**

In 1999, the Ministry of Environment and Forests (MoEF) has prepared a national policy and macro level action strategy on biodiversity through a consultative process. This document is a macro-level statement of policies, gaps and strategies needed for conservation and sustainable use of biological diversity. There is a need to prepare detailed action plans at districts, state, regional and national levels. Preparing such a detailed micro-level plan for the conservation of the country's biodiversity is also a part of India's obligations as signatory to the CBD. In this context the MoEF has accessed funding from the Global Environment Facility (GEF)

for preparing the national biodiversity strategy and action plan.

In a novel arrangement for preparing a guiding document for biodiversity conservation efforts in India, the MoEF is working in close coordination with an environmental non-governmental organization - Kalpavriksh. The MoEF is overall incharge of the NBSAP process with the National Project Directorate being situated at the MoEF. The execution of the project is being carried out by a Technical and Policy Core Group (TPCG) comprising of experts from various fields and parts of India headed by Kalpavrikash. The administration of the project is being coordinated by the Biotech Consortium India Ltd.

#### **The NBSAP process will lead to**

- 20 local-level action plans.
- 30 state-level plans.
- 10 inter-state eco-regional plans.
- 13 national thematic plans.
- All of the above plans will build over-view national plan, but also remaining independent action plans.

#### **Scope of the Strategy**

Each Strategy would consist of the following:

- Statement of the issue or problem.
- Identification of ongoing initiatives regarding the issue.
- Identification of key actors involved.
- Identification of major gaps in coverage.

- Delineation of steps needed to plug gaps and enhance the effectiveness of ongoing initiatives.
- List of measures and strategies to facilitate the implementation of these steps.
- Identification of key elements needed for implementation : institutional structures, funds, expertise/human resources, policy, legal measures and monitoring etc.
- Time frame for implementation.

### The Action Plan

The process of developing NB SAP will be highly participatory in nature, involving a large number of village-level organizations and movements, non-governmental organization, academicians and scientists, government officers from various lip' agencies: the private sector, the armed forces, politicians and others who have a stake in bio-diversity. The NBSAP should be viewed as much as a process as a final product. Through such a participatory approach, it will evoke much wider ownership of the process and product and go a long way in ensuring the implementation of what is recommended in the final NBSAP.

The NBSAP project envisages the assessment and stock taking of bio-diversity related information at various levels, including distribution of endemic and endangered species, site-specific threats and pressures, social, political, economic issues, ethical concerns and on going conservation initia-

tives by various sections of society. The two bottom lines that all the agencies involved have to keep in mind are

- Ensuring the ecological security of the country and the area they are working on.
- Ensuring the livelihood security of communities dependent on biological resources.

The implementation of the CBD has begun in India. But it needs to be seen that the TRIP of WTO (World Trade Organization) agreement are not in conflict with CBD. The NGOs and the local communities have an effective role to play in protecting the biodiversity and have already initiated the programmes on education and training. A closer partnership between government, NGQs and local communities will be very helpful in achieving sustainability in development.

### References

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