



# INDIA & THE CONVENTION ON BIOLOGICAL DIVERSITY (CBD) *COP-10. Nagoya, Japan. October 18-29, 2010.*



जहाँ है हरियाली ।  
वहाँ है खुशहाली ॥



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## [A] Background

Biodiversity is the variety of living organisms on the earth. It includes diversity within species or between species and of eco-systems. The earth's biological resources are vital to humanity's economic and social development. Globally, so far 1.75 million species have been identified against the estimates ranging from 3 to 100 million. There is growing recognition that biodiversity is a global asset of tremendous values to present and future generations. At the same time, the threat to species and ecosystems has never been as great as it is today, as a result of which species extinction caused by human activities continues at an alarming rate. This calls for global and national actions towards conservation of biodiversity.

## [B] India: A Treasure of Biodiversity

India is known for its rich heritage of biodiversity. In biological diversity parlance, India is one of the **17 mega-diverse countries in the world**. With only 2.4% of the world's area, India accounts for 7-8% of the world's recorded plant (about 45,000, of which approximately 15,000 are of known medicinal value) and animal species (about 91,000). India's ten biogeographic zones possess an exemplary diversity of ecological habitats like alpine forests, grasslands, wetlands, coastal and marine ecosystems, and desert ecosystems. India has four out of thirty four global biodiversity hotspots, which is an indicator of high degree of endemism (of species) in India. About 5,150 plant species and 1,837 animal species are endemic to India. India's biodiversity includes wild relatives of agricultural crops and domesticated animals. India has 16 major types and 251 subtypes of forests. The large mosaic of distinct agro-ecosystems has contributed to diverse cropping pattern and systems across the country.





## [C] Conservation of India's Biodiversity: A Progressive Framework

Environment protection is enshrined in the Constitution of India [Article 48A and Article 51A (g)]. Wide-ranging policies, programmes and projects are in place, which directly or indirectly serve to protect, conserve and sustainably use the country's biological resources. These include the Forest (Conservation) Act, Wildlife (Protection) Act, Biological Diversity Act, National Green Tribunal Act, National Biodiversity Action Plan, National Forest Policy, National Wildlife Action Plan, National Forestry Action Programme, National Environment Policy and National Action Plan on Climate Change.

India is committed to conservation of biodiversity. This is not only because of India's international obligations as a signatory to the Convention on Biological Diversity, but because India believes that protecting our biodiversity is a critical national priority as it is linked to local livelihoods of millions of people in the country. Sustainable use of our biodiversity, therefore, has both ecological and economic value. It is with this objective that India has enacted **Biological Diversity Act, 2002** and set up a **National Biodiversity Authority (NBA)** in 2003 with an explicit mandate of promoting conservation of biological resources and associated knowledge as well as facilitating access to them in a sustainable manner.





**Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act**, enacted in 2006, is a tool to provide occupational and habitation rights to the people, thus, incentivising conservation and sustainable use of biological resources by providing access to livelihood enhancing resources to people.

**National Biotechnology Development Strategy**, 2007 calls for promotion of mass use of technologies for sustainable utilisation of bioresources.

**National Biodiversity Action Plan** of 2008 developed in consultation with various stakeholders and by taking cognizance of legislative and policy framework is a dynamic matrix for mainstreaming biodiversity concerns in the country.

India proudly upholds the tradition of nature conservation. In 252 BC, the Emperor Asoka established Protected Areas (PAs) for mammals, birds, fish and forests through a proclamation. Jim Corbett National Park covering an area of 325 sq. Km. came into being as the India's first and world's third National

Park in 1936. India has currently 4.79% of total geographic area under an elaborate network of PAs, which includes 99 National Parks, 513 wildlife sanctuaries, 43 conservation reserves, 4 community reserves and 3 Biodiversity Heritage sites.

India has a **National Wildlife Action Plan**, which envisages 10% of the geographical area of the country under PA coverage. This is significant, keeping in view that India holds 18% of world's human population and also 18% of the world's livestock population in an area, which is only 2.4% of the world's geographical area.

**Under the Man and Biosphere (MAB) Programme** out of 16 biospheres in India (70,000 sq. km.), seven are already in UNESCO World Network of Biosphere Reserves (World total 503).

India has a **National Wetland Conservation Programme** covering 125 wetlands including 25 Ramsar sites under the Ramsar Convention.

India accounts for about 5% of the world's mangroves (including Sunderbans delta-the largest mangrove forest in the world)





and partners with IUCN's Mangroves for Future programme and has established a National Institute of the Mangrove Research at Kolkata.

Coral reefs in India occupy an extent of 2375 sq. km. (including the Andaman Islands, which have rich coral diversity and a National Coral Reef Research Centre at Port Blair).

India has a **National Lake Conservation Plan** covering 42 lakes, which aims at rejuvenation in terms of improvement on water quality and biodiversity.

India has a **National River Conservation Plan** under implementation in 160 cities covering 34 rivers. NGRBA (National Ganga River Basin Authority) is responsible for conserving and sustainable use of the biodiversity of the river Ganges.

Conservation and sustainable use of biodiversity have been an integral part of Indian ethos. Sacred groves are thick patches of natural Forests conserved by the local communities as part of socio-cultural practices. The Sacred Grove Information System holds information on 3000 such groves in the country out of an estimated 100,000 to 150,000.

Several species specific projects are being implemented for flagship animal species such as Tiger (National Animal), Elephant (National Heritage Animal), Rhinoceros, Gharial, Hangul and snow leopard, birds such as Vulture, Great Indian Bustard, and plants such as Orchids, Rhododendron and citrus.

India has large number of scientific personnel and important network of scientific institutions in public, private and NGOs sectors. The important institutions/organisations include Botanical Survey of India, Zoological Survey of India, Wildlife Institutes, Fishery Survey of India, Forest Survey of India, ICFRE, ICAR, CSIR, DBT, DST, DRDO etc. National Bureaus on plants, animals, fish, insects, microbes and forest genetic resources are specifically mandated for management of genetic resources. All India Coordinated Project on Taxonomy and network projects on honeybee and pollinators and ornithology are also in place for capacity building and research.

India has put in place a number of initiatives for promoting conservation of biodiversity, such as, provision of national



gene fund, national biodiversity fund, awards etc.

Pressure from habitat loss and degradation has been reduced by the system of environment clearances based on Environmental Impact Assessment (EIA), Coastal Regulation Zone (CRZ), National Afforestation and Eco-development Board (NAEB), National Action Programme to Combat Desertification and Green India Mission.

## **[D] Legislative and Policy Measures for Biodiversity Conservation**

India has been a signatory to the Convention since 18th February 1994, and is one of the first countries to have enacted an appropriate comprehensive legislation to achieve the objectives of the convention. As of now, 193 countries are party to the CBD. Amongst the signatory nations, India has some unique qualities. As signatory to the CBD, the Biological Diversity Act, 2002, passed on December 11, 2002 came into force on February 5, 2003, followed by the formation of its Rules in 2004. The Biological Diversity Act of 2002 provides necessary statutory and administrative mechanism at the National, State and

Local body levels to realise the objectives of the Act and CBD.

A three-tiered system of regulation is envisaged under the Biological Diversity Act, which consists of the National Biodiversity Authority (NBA) at the apex level, Biodiversity Boards (SBBs) at State level and Biodiversity Management Committees (BMCs) at local level. The headquarter of NBA is at Chennai and the main functions include regulating activities, advising the Government of India on biodiversity matters, grant for access to biodiversity and associated knowledge and to take necessary measures to protect the biological diversity of the country. The main functions of the State Biodiversity Boards are to regulate requests for utilization of biological resources by Indian nationals and to assist the State Government in notification of areas of biodiversity importance as Biodiversity Heritage Sites and framing rules for their management and conservation. At the local level, Biodiversity Management Committees perform the function of documenting People's Biodiversity Registers and implement biodiversity conservation programmes. The major achievements in the implementation of Biological Diversity Act include notification



of guidelines on People's Biodiversity Register, Biodiversity Heritage Sites, designated repositories, enforcement mechanisms etc. 87 benefit sharing agreements have been signed by NBA with the applicants. 25 State Biodiversity Boards have been established and over 30,000 BMCs have been formed. Over 400 People's Biodiversity Registers have been documented and national biodiversity fund has been created. Various awareness generation and capacity building activities of different organisations have been supported. During 2010, several activities have been organised/supported to mark the celebration of International Year of Biodiversity. National consultations have been organized on various issues relating to biodiversity.

To ensure the fair and equitable sharing of benefits arising out of the use of genetic resources, India has taken significant legislative measures and also integrated these principles in various policies and programmes.

- ❖ **The Protection of Plant Varieties and Farmer's Rights Act, 2001** and Rules 2003 deal primarily with the protection of plant breeders rights over the new varieties developed.

The Act also provides for protection of farmer's varieties and creation of national gene fund for promoting conservation of local varieties.

- ❖ **The second and third amendments to the Patent Act, 1970** provide for mandatory disclosure in the patent application, of the source and geographical origin of the biological material used in the invention.
- ❖ **The Geographical Indications of Goods Act, 1999** has been enacted to provide for protection of geographical indications of goods referring to a place of origin of that product and the exclusion of unauthorized persons from misusing geographical indications.
- ❖ There is a provision for **benefit sharing for access to biological and or associated knowledge (ABS)** in the Biological Diversity Act. Under this Act, 87 benefit sharing agreements have been entered by NBA with applicants in consultation with the stakeholders.
- ❖ **National Innovation Foundation (NIF)**, an autonomous society



established in 2000 for recognising, respecting and rewarding innovations and outstanding traditional knowledge at grassroots, has developed a model for facilitating prior informed consent for local innovators and traditional knowledge holders which provides for NIF mediation.

## **[E] Protection of Traditional Knowledge**

Since time immemorial, India has possessed a rich traditional knowledge of ways and means practiced to treat diseases afflicting people. This knowledge has generally been passed down by word of mouth from generation to generation. A part of this knowledge has been described in ancient classical and other literature, often inaccessible to the common person and even when accessible rarely understood. Documentation of this existing knowledge, available in public domain, on various traditional systems of medicine has become imperative to safeguard the sovereignty of this traditional knowledge and to protect it from being misappropriated in the form of patents on non-original innovations,

and which has been a matter of national concern. India fought successfully for the revocation of turmeric and basmati patents granted by United States Patent and Trademark Office (USPTO) and neem patent granted by European Patent Office (EPO). As a sequel to this, in 1999, the Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH) and Council of Scientific and Industrial Research (CSIR) constituted an inter-disciplinary Task Force, for creating an approach paper on establishing a Traditional Knowledge Digital Library (TKDL).

**TKDL - An effective deterrent to bio-piracy:** TKDL is a maiden Indian effort and is a proprietary and original database. TKDL is available in English, Japanese, French, German and Spanish. Today, India through TKDL is capable of protecting about 0.224 million medical formulations. On an average, it takes five to seven years for opposing a granted patent at international level which may cost 0.2-0.6 million US\$.

India has signed TKDL Access Agreements with European, US, Canadian, German, and UK Patent Offices. These agreements are unique in nature and have inbuilt safeguards on non-disclosure to protect India's interest. Significant impact has already been realised at EPO during the last one year. The access to 2.24 Lakh (0.22 million) medicinal formulations is available to Patent Offices under TKDL Access Agreement. As of September 2010, 3 patents have been set aside and 23 patents have been withdrawn based on



TKDL database by the EPO.

A recent study has revealed a sharp decline (44%) on filing of patent applications concerning Indian systems of medicine at EPO. TKDL is proving to be an effective deterrent against bio-piracy. India has also set up a global bio-piracy watch system under TKDL in respect of patent applications related to Indian System of Medicines. Misappropriation and bio-piracy are the issues of great concern for the developing countries and this agenda is being pursued at multilateral fora such as CBD, TRIPS Council and WIPO, and we hope, a global Traditional Knowledge protection system is established soon.

The Biological Diversity Act provides for documentation of coded and oral traditional knowledge associated with bioresources in the form of People's Biodiversity Register, to ensure effective management, promotion and sustainable uses. So far, 419 such registers have been documented in 6 states. These documents will be of great value in protecting the biodiversity.

## **[F] Convention on Biological Diversity (CBD)**

Biodiversity as a global issue gained importance at the 1992 Earth Summit in Rio de Janeiro, Brazil where world leaders agreed on a comprehensive strategy for "sustainable development". One of the key agreements adopted at Rio was the 'Convention on Biological Diversity' (CBD) which was signed by vast majority of the world's governments showing



commitments for maintaining the world's ecological foundations as economic development proceeds worldwide. The objective of the Convention are conservation of biological diversity; sustainable use of its components and fair and equitable sharing of the benefits arising from the use of genetic resources.

The CBD is the first comprehensive global agreement addressing all aspects relating to biodiversity. The institutional framework for CBD's implementation is provided by the Conference of the Parties (COP). The COP is the governing body of CBD which keeps under review implementation of the Convention, and steers its development. COP is the supreme decision making body which has the authority to adopt protocols under the Convention. It also has the authority to amend the Convention itself. To date, nine ordinary meetings of the COP have been held, the first three annually (Nassau, Bahamas in 1994; Jakarta, Indonesia in 1995; and Buenos Aires, Argentina in 1996), and thereafter biennially (Bratislava, Slovak Republic in 1998; Nairobi, Kenya in 2000; Hague, the Netherlands in 2002; Kuala Lumpur, Malaysia in 2004, Curitiba, Brazil in 2006, Bonn, Germany in May, 2008). CoP-10 will be held in Nagoya, Japan from 18-29th October, 2010. One



extraordinary meeting of the COP has been held, for adoption of the Cartagena Protocol on Biosafety in two sessions in Cartagena, Colombia in February 1999 and in Montreal in January 2000.

The tenth meeting will be held in Nagoya, Japan from 18-29, October, 2010. The COP through its decisions takes necessary steps to translate provisions of the Convention into practical actions. These measures inter alia include: adoption of programme of work for thematic areas (marine and coastal biodiversity, mountain biodiversity, agriculture biodiversity, dryland biodiversity, forest biodiversity, inland water biodiversity, island biodiversity) and for a number of cross cutting issues (incentive measures, alien invasive species, traditional knowledge etc.) COP also issues specific guidance for funding through the Convention's financial mechanism for implementation of programmes of Convention.

## **[G] Conference of the Parties (COP-10)**

The COP-10 is by far the most important COP for a number of reasons. It is being held in the UN proclaimed International Year of Biodiversity, at a crucial juncture

where we are taking stock of the progress in achieving 2010 biodiversity target, and are also in the process of adopting the Strategic Plan for the Convention beyond 2010. More importantly, this COP has to decide about the Access & Benefit Sharing (ABS) negotiations, which has been the missing pillar of the CBD even after 18 years of its birth at the Earth Summit in Rio de Janeiro in 1992.

### **Negotiation on Access and Benefit Sharing (ABS):**

The CBD recognises the sovereign rights of States over their natural resources in areas within their jurisdiction. Parties to the Convention therefore have the authority to determine access to genetic resources in areas within their jurisdiction. Parties also have the obligation to take appropriate measures with the aim of sharing the benefits derived from their use. Benefits derived from genetic resources may include the result of research and development carried out on genetic resources, the transfer of technologies which make use of those resources, participation in biotechnological research activities, or monetary benefits arising from the commercialisation of products based on genetic resources. Further to the call for action by Governments at the World Summit on Sustainable Development in 2002, the COP-7 established the Working Group on ABS to negotiate protocol for an international regime on access to genetic resources and benefit-sharing.

The ABS working group has held nine meetings where some progress was made in the negotiations of the draft Protocol.

Hence, it was decided to continue and conclude the negotiations in September 18-21, 2010 and October 13-15, 2010 using an Interregional Negotiating Group setting. The Ninth meeting of the working group would resume on 16 October 2010, is expected to endorse the work of the ING and report to the in the COP-10 meeting, in Nagoya, Japan, from 18-29 October 2010. The protocol is very important for biodiversity rich countries like India which will be helpful in stopping bio-piracy, ensure transparency in access and benefits to the conservers of the genetic resources and traditional knowledge. Hence, India attaches high priority for successful negotiations and adoption of ABS protocol.

This COP is also significant as it is being held in the backdrop of the first-ever high level event on biodiversity of the United National General Assembly at its 65th Session, thereby setting the stage for moving biodiversity and the CBD to the central place in global environmental discourse and arena, a place that it rightfully deserves, 18 years after its birth, and years after its sister Convention on climate change has been getting all the headlines.

All recent studies and reports, including the Global Biodiversity Outlook-3 released earlier this year, complemented by the report of The Economics of Ecosystem and Biodiversity (TEEB) to be launched, point to compelling reasons as to why immediate action is called for to address the challenge of biodiversity loss along with that of climate change, in a coordinated



manner and on an equal footing with same priority.

The biodiversity and ecosystem services are considered largely as public goods, their loss therefore goes unaccounted for in the present economic system, and therefore can continue unabated. It is hoped that the TEEB study, led by Pavan Sukhdev, would sharpen awareness on the value of biodiversity, and in due course, may facilitate development of cost-effective policy responses and better informed decisions. As far as India is concerned, one such policy change on which decision has already been taken even before the final report of TEEB is released in Nagoya is that beginning from next financial year, performance on environmental measures will be considered as one of the criteria for determining allocation of funds by the Planning Commission of the Central Government to the federal State Governments.

Another important matter that is awaiting the final approval is the establishment of an IPBES (Intergovernmental Platform on Biodiversity and Ecosystem Services). The IPBES, proposed to be set on the lines of IPCC, aims to provide a science-policy interface



on biodiversity, especially in the backdrop of the looming ecological crisis owing to widespread loss of biodiversity and ecosystem services. The expectation is that this step too will motivate political action.

India is a megadiverse country with very strong science base in terms of manpower and institutions. We would therefore be happy to host the secretariat of IPBES, as and when it is established.

India is looking forward to finalisation of the post 2010 Strategic Plan on biodiversity at Nagoya. We recognise that some of the goals and targets in the draft plan are indeed too ambitious and not implementable for many of the countries. We therefore, support provision of adequate, timely and proportionate financial and technological support to eligible developing countries for helping them to achieve these targets.

India would also support working on innovative financial mechanisms as a means to support implementation of the CBD, provided that these mechanisms supplement and not replace the financial commitments enshrined in the Convention. In this context, India recognises the importance of South-South Cooperation, complemented and supported by North-South Cooperation, as an important contribution to the post 2010 Strategic Plan. India is already

pursuing and will further strengthen capacity building efforts to our partners on biodiversity related issues.

During COP-10, a high level ministerial segment will be organised by the host country in consultation with the secretariat and the bureau, from 27-29th October, 2010.

The crucial issues which may pave the way forward in achieving the three objectives of the CBD include successful negotiations of ABS protocol, integration of biodiversity concerns into planning process, bridging the divide between the science and policy, ambitious but achievable targets coupled with provision of adequate resources and universal participation of all countries as Parties in this Convention of life on Earth.

## **[H] India as host of the 11<sup>th</sup> Conference of Parties of CBD**

India is going to host COP-11 in 2012. A formal decision on this will be taken in the closing plenary of COP-10 in Nagoya, Japan. The COP-11 will be significant as it will mark the 10th anniversary of Johannesburg World Summit on Sustainable Development, 20th anniversary of the Rio Earth Summit and 40th anniversary of Stockholm Conference.



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### **Photographs:**

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