

**Biodiversity Laws: An Analytical Study
With Special Reference to Access
and Benefit Sharing**

SUMMARY OF THESIS

SUBMITTED TO
BABASAHEB BHIMRAO AMBEDKAR UNIVERSITY
LUCKNOW

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1. Introduction

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.¹ The conservation and use of biological diversity has been of the most debated areas of environmental law for more than a decade. While biodiversity constitutes only one part of environment regulation, it has acquired a special importance because it provides an umbrella framework all discussions relating to the use and protection of all living organisms.²

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, geo-sphere, and hydrosphere into one environmental system which makes it possible for millions of species, including people, to exist. Many of these deal with various aspects and parts of bio diversity, starting with the Convention relating to the Preservation of Fauna and Flora in Their Natural State, 1933.³ But the first concerted effort for the conservation of biodiversity at international level figured in the discussions at the U.N Conference on the Human Environment held at the Stockholm in 1972. Principle 4 of the Declaration is guiding towards protection of biodiversity as it provides for 'safeguard and wisely manage the heritage of wildlife and its habitats'.⁴ Biodiversity can broadly be divided at three levels i.e. genetic diversity, species diversity and ecosystem habitat diversity.⁵

¹ William J. Snape, "Joining the Convention on Biological Diversity: A Legal and Scientific Overview of Why the United States must Wake Up"6 Volume 10 *Sustainable Pathways Towards Biodiversity Preservation* (2010).

² Phillippe Cullet, *Intellectual Property Protection and Sustainable Development*, 90 (LexisNexis Butterworths, New Delhi, 2005)

³ Ashish Kothari, "Politics of Biodiversity Convention", 27 *EPW* 749 (1992), available at: <http://www.jstor.org> ., last visited on november 20, 2020

⁴ Patricia Birnie, *et. al.*, *International Law and the Environment* 48-49 (Oxford University Press, New York, 3rd edn., 2009).

⁵ Available at- <http://cmsdata.iucn.org>., last visited on December 12, 2020

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Access and benefit-sharing refers to the way in which genetic resources may be accessed, and how users and providers reach agreement on the fair and equitable sharing of the benefits that might result from their use.

The Convention on Biological Diversity (CBD) sets out provisions which are governed to access and benefit-sharing⁶.

Under these rules, the governments of countries have two key responsibilities:

1. To put in place systems that facilitates access to genetic resources for environmentally sound purposes

2. To ensure that the benefits resulting from their use are shared fairly and equitably between users and providers Users of genetic resources include research institutes or companies seeking access for basic scientific research or product development. To gain access, users must first get permission (known as prior informed consent or PIC) from the provider country. In addition, the provider and the user must negotiate an agreement (known as mutually agreed terms or MAT) to share the resulting benefits equitably.

Providers of genetic resources: States have sovereign rights over natural resources under their jurisdiction. They are obligated to put in place conditions that facilitate access to these resources for environmentally sound uses. Providers agree terms, which include PIC and MAT, for granting access and sharing benefits equitably. Laws within the provider country may entitle others, such as ILCs, to also negotiate terms of access and benefit-sharing. The participation of ILCs is necessary in instances where traditional knowledge associated with genetic resources is being accessed.

Users of genetic resources: Users are responsible for sharing the benefits derived from genetic resources with the providers. They seek access to genetic resources for a wide range of purposes, from basic research to the development of new products. They are a diverse group, including botanical gardens, industry researchers such as pharmaceutical, agriculture and cosmetic industries, collectors and research institutes.

National Focal Points: To facilitate access, users need a clear and transparent process that details who to contact and what the requirements and processes are in

⁶ Article- 15 of The Convention on Biological Diversity, 1992

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provider countries in order to gain access. National Focal Points are responsible for providing this information.

Competent National Authorities (CNAs): CNAs are bodies established by governments and are responsible for granting access to users of their genetic resources, and representing providers on a local or national level. National implementation measures establish how CNAs work in a given country.

The access and benefit sharing procedures specifically 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. Human societies across the globe derive nutritional, economic, aesthetic and cultural value from biological diversity.⁷ Much of that biological diversity is currently threatened by human activities, particularly through alteration of landscapes and ecosystems associated with agriculture, urban development and management of waterways.⁸

It is also undisputed that ecosystem services from land, water, and air are degraded throughout the world and threatening food supplies, economic development, scientific advancements, and global security. The rapid advent of global warming and associated climate change makes the job of saving native plants, animals, and habitats even more difficult. Human beings need biological diversity to survive and prosper, but our natural support system is fraying. Thus, the reason need to formulate an appropriate system for Prior Informed Consent and Fair and Equitable Benefit sharing in respect of biological material and traditional knowledge of use of such biological material to enable the country and local communities respectively to derive economic benefits for providing access.

⁷ Ehrlich, P. R. and A. H. Ehrlich, “*The value of biodiversity*”, 21 ELSEVIER (3): 219-226 (1992)

⁸ Corvalan, C., S. Hales, and A. McMichael, “Ecosystems and Human Well-being: Health Synthesis”, A Report of the Millennium Ecosystem Assessment. World Health Organization, Geneva, 2005

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2. REVIEW OF LITERATURE

For the purpose of writing research work, the researcher has studied and reviewed following books and articles-

- **T. S. Krishnan, *Biodiversity and Environment*, Swastik Publishers and Distributors, Delhi, first edition (2008).**

This book is a unique compilation of research articles in the field of biodiversity and environment. It provides a basic knowledge of ecosystems, productivity and biodiversity.

- **Ashok Kumar, *Environmental change and biodiversity*, Swastik Publication, Delhi, first edition (2011).** This work analyses various aspects of climate change and biodiversity.
- **Janamjit Singh, *Biodiversity: Planning for Sustainable Development*, Deep and Deep Publications Pvt. Ltd., New Delhi, (2006).**

This book defines biodiversity, demonstrates its importance to life as we know it, and represents strategies and solution, including what we can do in our own homes and communities, for stopping the escalating rate of species extinction.

- **K. Venkataraman, *India's Biodiversity Act 2002 and its role in conservation*,** this article summarizes the main features of India's Biological Diversity Act 2002 (BD Act) and its role in biodiversity conservation in the country.
- **Kanchi Kohli, Shalini Bhutani, *Access to India's Biodiversity and Sharing Its Benefits*.**

This article highlights the role of India on access and benefits sharing under CBD and its Nagoya Protocol on ABS. It also analyses what is contained in the 2014 ABS guidelines.

- **Philippe Cullet, *Intellectual Property Protection and Sustainable Development*, LexisNexis Butterworths, New Delhi, 2005.**

The author attempts to explore the realm of intellectual property protection in light of sustainable development and the issues arising thereof. It focuses on the implementation of the law in India as well. The book in particular focuses on aspects pertaining to plant, genetic resources and biodiversity and the impact of the IPR regime on such bioresources and sustainable development thereof. It is

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pertinent to the present research as the book specially throws light on the interplay between IPR protection and Access and Benefit Sharing regime and also examines issues pertaining to the protection of traditional knowledge which is excluded from the ambit of the present day intellectual property regime.

- **S. Divan and A. Rosencranz, *Environmental Law and Policy: Cases, Material and Statutes, Oxford India Paperbacks, 2nd edn., 2002.***

The authors of the book have explored various aspects of environmental law regime in India and focuses not only on the legal provisions under the Constitution of India and the environmental legislations but also the judicial pronouncements and remedies created by the judiciary in this regard. The book identifies not only the existing legal regime but also the lacunas in the present-day system, including the existing lack of necessary precautionary measures to protect the environment. The book has been particularly relevant in understanding the judiciary's proactive role, the impact of public interest litigation and in studying its pronouncements pertaining to several relevant aspects of this research.

- **E.C. Kamau, B. Fedder, et. al., *The Nagoya Protocol on Access and Benefit Sharing: What is New and What are the Implications for Provider and User Countries and the Scientific Community?***

The authors of the article analyses the exercise of sovereign rights of states over the genetic resources within their national territory and its fair and equitable sharing under the realm of the 'Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity, 2010'. The article explores the substantive provisions of the Protocol and the framework thereunder to regulate the access and benefit sharing (ABS) of the biological resources and the associated traditional knowledge (TK) of the local and indigenous communities. It further indicates the details pertaining to exchange of such resources between the providers and users of such resources and associated TK and elaborates upon the lacunas in the Nagoya Protocol and the necessary reforms in order to improve the implementation of the ABS regime.

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- **R. K. Jospheh, *International Regime on Access and Benefit Sharing: Where Are We Now.***

The author in this article highlights the existing limitations under the national legal framework, particularly with regards to biopiracy. It has traced the increasing incidents in biopiracy as the cause resulting in the negotiations which helped mold the Access and Benefit Sharing international regime. It further analyses the differences between the North and the South nations that led to an impasse in the discussions and were ultimately resolved in the 10th COP at Nagoya, Japan. This article further explores the nature of the stance taken by the developed countries and the concerns of the developing nations during the negotiations. It is in this backdrop that the Nagoya Protocol is analysed in order to assess whether the developing countries truly gained through it or not.

- **Stellina Jolly, *Access and Benefit Sharing under Nagoya Protocol and Sustainable Development-A Critical Analysis.***

The author traces from history that the entire debate surrounding natural resources was conflicted since earlier bio-resources were considered to be the common heritage of mankind. However, with the development of technologies, rapid demand and exploitation of the south by the north resulted in the developing nations striving to claim right over the naturally occurring resources within its national jurisdiction and to protect them from exploitation. The article analyses these issues and assesses the development of the access and benefit sharing (ABS) regime which sought to be the answer to such disputes between the developing and developed nations of the world. The article further analyses the protection of the ABS regime and the effect of the protection of the fair and equitable sharing principle envisaged under the Nagoya Protocol in effectuating sustainable development.

- **E. Louka, *International Environmental Law, Fairness Effectiveness and World Order 310* (Cambridge, U.K., 2006).**

This book explores the legal framework pertaining to the management of global biodiversity and common resources. It draws from the increasing competing demands for the common resources and pursues the need for protection of the environment and its resources from the perspective of fairness and sustainable development. It analyses aspects of national laws, international environmental law

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regime and the existing legal frameworks pertaining to access, equitable and fair sharing and the use of biodiversity and associated resources.

3. STATEMENT OF PROBLEM

Biodiversity, the natural biotic capital of the earth, is fundamental to the fulfillment of human needs and vital for the survival of this planet. Biodiversity is essential for maintaining the ecological functions, including stabilizing of the water cycle, maintenance and replenishment of soil fertility, pollination and cross-fertilization of crops and other vegetation, protection against soil erosion and stability of food producing and other ecosystems. Conservation of biological diversity leads to conservation of essential ecological diversity to preserve the continuity of food chains. Thus, biodiversity is life insurance for life itself. However, biodiversity is being increasingly threatened globally on account of various factors. The Conservation of biological diversity and its sustainable development is essential for the maintenance of ecosystem and protection of environment of this earth. It is meaningless to initiate any administrative measures without legal recognition to cope with this gigantic problem. Therefore, legal frameworks were to be developed to prevent the loss of biological diversity and for protection and improvement of environment at international and national level. In the world, most of the countries have made legislation in this regard.

In India, we have Biological Diversity Act 2002, Biological Diversity Rules, 2004 and National Action Plan on Biodiversity 2008, Forest Dwellers Act 2006. However, there are many shortcomings in implementation of above Act as well as the National Biodiversity Action Plan such as lack of awareness and lack of regional capacity, gaps exist in legal mechanisms and its implementation, Conservation and sustainable use of biodiversity, Capacity building, training and awareness generation at all levels with more emphasis on Biodiversity Management Committees, supporting implementation process including guidelines of National Biodiversity Authority, State Biodiversity Boards and Biodiversity Management Committees, Strengthening enforcement mechanism and synergies coordination among the departments to support commission special studies, Enhancing and promoting linkages synergies with different sectors and related to legal instruments for mainstreaming biodiversity in other programmes.

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One key issue that has dominated the CBD landscape globally and the implementation of the BD Act domestically is that of access, and with it, benefit sharing, together referred to in the CBD as ABS. The government's new guidelines on access and benefit sharing notified in 2014 have only marginally added to what the act and its rules lay down. Moreover, the issues relating to biodiversity conservation law and policy in India are very complex, and are still evolving especially in the context of ABS and associated traditional knowledge. Thus, there is an urgent need to strengthen law and policy related to conservation of biodiversity in order to realise the sustainable development goals set out by the international community.

4. OBJECTIVES

The object of thesis is to discuss and explore the conservation of biodiversity law and policy; to highlight the shortcoming in law and policy and suggest better initiatives to mend in concern lacunas. Against this background, the study is intended;

- To highlight the issues and challenges relating to biodiversity and its conservation.
- To examine the international legal framework related for ABS.
- To evolved Access Benefit Sharing model in the light of CBD, which protect rights of local community and their traditional knowledge?

5. HYPOTHESES

The following propositions are to be tested in the thesis:

- Biodiversity is very fundamental to the fulfilment of human needs and essential for the survival of this planet. Biodiversity and its conservation is a collective responsibility of all nations by adopting additional protocol;
- There is a great threat to rich biodiversity of nature in India and the issues relating to biodiversity conservation law and policy are very complex and are still evolving particularly in the field of ABS model and associated traditional knowledge. And there is need to strengthen law and policy in India to conserve effectively biodiversity in general and ABS under Biodiversity Act in particular.

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6. RESEARCH METHODOLOGY

The doctrinal method of research has been followed in this research work. The information's are based on the analysis of both primary method and secondary sources of data. The primary source of data would opt the descriptive research methodology for describing the biodiversity and related legal instruments. The secondary data is availed from various books, journals, magazines, newspapers, Government publications, earlier studies, media reports. The research problem demands for a detailed study of the conventions at international level and various legislations at national level along with the provisions under other national and international instruments related to the subject. All the thoughts and ideas in this thesis, that are not the researcher's own ideas, are duly cited. In pursuance of this uniform study, which is followed Indian Law Institute, citation format of footnoting have been adopted.

7. FRAMWORK OF THE STUDY

For the systematic, smooth and purposeful study the entire research work has been broadly divided into seven chapters-

Chapter- I Introduction- this chapter is introduced an overview on the research work and described the Biodiversity related laws in contexts to Access and benefits sharing.

The United Nations Environmental Programme was launched by the UN General Assembly in 1972 as a follow-up to the first United Nations Conference on Human Environment (UNCHE) to meet the urgent need for a permanent institutional arrangement within the United Nations system for the protection and improvement of the environment system.

The concern for the Conservation of Biodiversity at global level figured for the first time in the discussions at U.N Conference on the Human Environment held at the Stockholm in 1972. Though the United Nations Environmental programme identified conservation as a priority area in 1973, it was only towards late 1980's that systematic and concerted efforts to look at Biodiversity Conservation profile at International level started with constitution on an ad hoc working group of experts on biological diversity by UNEP in 1987.

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The Convention on Biological Diversity, 1992 sometimes called the “CBD” for short. This Convention was adopted by balancing the ‘common heritage’ and ‘national sovereignty’ principles. The broad agenda envisioned under the Convention are sustainable use, fair and equitable sharing of benefits of genetic resources which in turn obligate the member states to swing into action for devising ABS model.

The Indian biodiversity law comprises of the Biological Diversity Act, 2002, the Biological Diversity Rules, 2004 and in 2006, the National Environment Policy was introduced by the government. The policy highlights the importance of biodiversity conservation in relation to other components of the environment. It emphasises the need to formulate an appropriate system for Prior Informed Consent and Fair and Equitable Benefit sharing in respect of biological material and traditional knowledge of use of such biological material to enable the country and local communities respectively to derive economic benefits for providing access.

The Ministry of Environment, Forest and Climate Change (MoEFCC) as the nodal ministry for the implementation of CBD in India initiated action for preparation of NR6 in early 2017 in association with the National Biodiversity Authority (NBA) and support from Global Environment Facility (GEF) through United Nations Development Programme (UNDP). The process began with extensive consultations with the multiple stakeholders at national and state levels. The stakeholders included representatives of the Central Government, state governments, State Biodiversity Boards (SBBs), other relevant government organisations, academia, civil society organizations, industry and business, domain experts, individuals and groups of people. A brochure comprising information on India’s National Biodiversity Action Plan (NBAP), National Biodiversity Targets (NBTs) and their linkages with Aichi Biodiversity Targets and Sustainable Development Goals spelling out the requirements of national reporting was prepared and widely circulated to provide background information to seek relevant inputs from stakeholders. The brochure initially prepared in English was translated into eight different Indian languages to reach the largest possible number of stakeholders.

A dedicated web-portal for receiving inputs online for NR 6 further facilitated wider outreach to stakeholders. Six Regional Consultations covering all States were organised between July-September 2017.

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Commercial utilisation is the essence of ABS, and the absence of a systematic monitoring mechanism shall lead to an unsustainable ABS. ABS cannot be performed in isolation or at the cost of conservation. Therefore, monitoring of Biodiversity has to be a part of the ABS mechanism. So far, in relation to the ABS agreements reached in India there has been no specific obligation imposed in relation to biodiversity monitoring.

Chapter- II Meaning and concept of Biodiversity Conservation and Access Benefit Sharing- under this chapter described meaning, concept of biodiversity conservation and Access and benefits sharing.

The word “biodiversity” was first coined by Walter G. Rosen in 1986. The biosphere comprises complex collections innumerable organisms, known as the biodiversity, which constitute the vital life support for survival of human race. Biological diversity, abbreviated as biodiversity, represent the sum total of various life forms such as unicellular fungi, protozoa, bacteria, and multi cellular organisms such as plants, fishes, and mammals at various biological levels including gens, habitats, and ecosystem.

The Convention on Biological Diversity, 1992 of Article 1 deals objectives of this convention as such is Firstly- Global Conservation of Biodiversity, Second- Sustainable use of components of the Biological resources, and Third- The fair and Equitable sharing of Benefits arising from the Utilisation of Genetic resources.

According to the Oxford Dictionary defines the ‘Biological Diversity’ as “*the variety of plant and animal life in the world or in a particular habitat, a high level of which is usually considered to be important and desirable.*”

According to the U.S. Congress Office of Technology Assessment, “Technologies to Maintain Biological Diversity,” 1987: “*Biological Diversity refers to the variety and variability among living organisms and ecological complexes in which they occur. Diversity can be defined as the number of different items and their relative frequency. For biological diversity, these items are organized at many levels, ranging from complete ecosystems to the chemical structures that are the molecular basis of heredity. Thus, the term encompasses different ecosystems, species, genes, and their relative abundance.*”

According to the Reid and Miller (1989) “*Biodiversity is the variety of the world’s organisms, including their genetic diversity and the assemblages they form. It*

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is the blanket term for the natural biological wealth and under-girds human life and wellbeing.”

According to the Wilson (1992), *“the variety of organisms considered at all levels, from genetic variants belonging to the same species through arrays of species to arrays of genera, families, and still higher taxonomic levels; includes the variety of ecosystems, which comprise both the communities of organisms within particular habitat and the physical conditions under which they live.”*

Convention on Biological Diversity, 1992 defines ‘Biological Diversity’ as to means *“the variability among living organisms from all sources including inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this include diversity within species, between species and of ecosystems.”*

The Biodiversity Act, 2002 provides the comprehensive view of the entire relevant concept, which inspired by the past definition and modified accordance to the present context and circumstances.

Definitions of biodiversity range in scope from “the number of different species occurring in some location” to “all of the diversity and variability in nature” and “the variety of life and its processes.” A more comprehensive definition is “the variety of living organisms, the genetic differences among them, the communities and ecosystems in which they occur, and the ecological and evolutionary processes that keep them functioning, yet ever changing and adapting”.

Chapter- III International legal instruments for conservation of Biodiversity; access and benefit sharing- This chapter focal point is legal instruments related conservation of biodiversity, access and benefit sharing at international level.

The rapid developments of economic, scientific and technological advancements have shown massive consequence in the form of degradation of ecological balances. Biodiversity is generally considered as an ‘umbrella term’ referring to organisms found within the living world. It is the lifeblood of sustainable development and green economies. Yet it is being run down at an unprecedented rate as human populations, and increase in their levels of consumption.

There have been several significant international efforts for the protection of global environment in the pre and post Stockholm Conference, 1972 which we further

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discuss in this chapter. In the light of various conventions, Principles of Stockholm Conference, Convention on International Trade in Endangered Species of Wild Fauna and Flora, World Conservation Strategy, International Plant Protection Convention, Convention on Wetlands of International Importance (Ramsar Convention), Bonn Convention on Conservation of Migratory Birds, the United Nations Environment Programme, The United Nations Conference on Environment and Development, Convention on Biological Diversity, Cartagena Protocol on Bio-safety, Nagoya Protocol on Access to Benefit Sharing. These measures protect biosphere as a whole and are indirectly helpful in the conservation and protection of biological diversity.

Chapter- IV Intellectual property rights regime and access benefit sharing- this chapter specially deals issues and relationship between Intellectual property rights and access benefit sharing.

Intellectual property protection in areas such as genetic engineering is often associated with genetic resources used in the protected product or process or the knowledge incorporated in the product or process. This has led to the development of increasingly complex and controversial legal frameworks concerning the rules that should govern access to genetic resources and related knowledge.

Access and benefit sharing clearly illustrates the close links between intellectual property protection and sustainable development. Access regimes have developed in earnest as a result of the increased value ascribed to genetic resources and traditional knowledge in the era of genetic engineering.

The basic provisions of the Biodiversity Convention have been further elaborated in the context of the non-binding Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilisation.

The International Treaty on Plant Genetic Resources for Food and Agriculture, 2001 under the UN Food and Agriculture Organization in 2001 and the ITPGRFA focuses specifically on ABS issues related to plant genetic resources for food and agriculture. Significant amount of time and energy is spent on assessing the ABS provisions under the ITPGRFA and meanwhile, discussions under the Food and Agricultural Organization's *Commission on Genetic Resources for Food and Agriculture*, focused on recognizing the contribution of farmers and farming families across the world to conservation of plant genetic resources for food and agriculture.

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The discussions focused on the ways and means to recognize the contributions of farmers through the concept of farmers' rights. The NP and how the provisions can be implemented at International and National levels. CBD provides countries to control access to its sovereign resources subject to individual ABS agreements while the ITPGRFA supports International Pooling and Sharing of Resources for Agricultural Research and food security through a multilateral system of exchange. These two systems of provision of Access and Sharing of Benefits are therefore different, making synergistic implementation of the Nagoya Protocol and International Treaty challenge at national level. Countries that are parties to both the Convention and treaty are therefore in need to find operational options to implement ABS provisions at National level to honour the commitments on assigning ITPGRFA under the Treaty Multilateral System while considering issues of sovereign rights over their genetic resources.

Chapter- V Access benefit sharing under Indian law and policy- this chapter described Indian laws and policies concerned to Access Benefit Sharing at present.

The access and benefits sharing of biological resources need to be control and protect by law. After one decade, the Convention on Biological Diversity, 1992 the Indian parliament has passed an Act to protect and control of Biodiversity known as The Biological Diversity Act, 2002. The Millennium Ecosystem Assessment documented the importance of biodiversity and Ecosystem Services for human well-being and projected that continued supply of these services is threatened by unsustainable human activities which includes overexploitation.

The Conservation of biodiversity and natural resources are deeply rooted in the culture and religion in India. The motto of the social life has been deliver as "to live in harmony with nature" because the society was having consciousness of the unfavourable environmental effects due to deforestation and extinction of living species. The sages and saints love the nature and used to live in forests. In many part of India the conservation and protection of nature and natural resources is emotionally involved with the divine origin itself.

India is predominantly on account of its natural diversity in its topography having the biodiversity and genetic resource richness like, biogeography, bioclimatic

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conditions, phyto-geographical and zoogeographical entities, socio-economic profile, culture, ethnic community and biodiversity-based indigenous traditional knowledge. India is renowned for its richness in biodiversity and associated traditional knowledge.

The first endeavour at claiming state monopoly was through the Indian Forest Act of 1865 which laid the establishment of the British policy in the direction of forests in India. The British Policy which was a straight result of reduce forests in other areas under the control of British Empire, was confining accesses of people to the forest resources. The Act of 1865 was substitute by more comprehensive legislation i.e. Act of 1878 in which by one stroke of the executive pen attempted to eradicate centuries of customary use by Indian population. It classified the three classes of forests i.e., reserved forest, protected forest and village forests; out of this three the first two were under control of the state.

Chapter- VI Access benefit sharing and Indian judiciary- this chapter focused Indian judiciary on Access Benefit Sharing related matters and issues.

Natural resources are the source of earn economy and access benefits sharing of natural resources to control sovereignty principle of nation. Indian judiciary is the guardian of constitution as well as constitutional and legal rights. The Indian Judiciary has made significant contribution to the development of environmental jurisprudence by resorting to international conventions and agreement. The Indian judiciary many a times has taken recourse to the international principles regarding environmental protection to overcome administrative indifferences and fix the lacunae in the existing legislation. This chapter deals with the role of Indian judiciary in order to the conservation of biodiversity and sustainable development in different phases.

With the activist approach of the Indian judiciary, the legal value of Fundamental Rights and Directive Principles jurisprudence has constantly grown up in the Indian Constitutional set-up. The Courts in India, while interpreting the Constitutional provisions, started right-based approach in 1990's for the protection of wholesome environment including the biological resources. Thus the Constitutional provisions related to environmental protection are of pivotal significance. The court also recognized several unarticulated liberties implied under Article 21. The Supreme Court of India growing reputation as a Green Court stems from is increasingly active interventions in protecting environment and biodiversity conservation.

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Recently, The High Court of Uttarakhand a petition *Divya Pharmacy vs. Union of India and Others* (Writ Petition (M/S) No. 3437 of 2016) on 21 December, 2018 has been filed and the Petitioner's challenged that the UBB cannot raise a demand, under the Head of "Fair and Equitable Benefit Sharing" (FEBS), as the Board neither has the powers nor the jurisdiction to do that and, secondly, the petitioner in any case is not liable to pay any amount or make any kind of contribution under the head of 'FEBS'.

The court has observed that *"This Court is of the opinion that SBB has got powers to demand Fair and Equitable Benefit Sharing from the petitioner, in view of its statutory function given under Section 7 read with Section 23 of the Act and the NBA has got powers to frame necessary regulations in view of Section 21 of the Act. The challenge of the petitioner to the validity of the Regulations fails. This Court holds that the Regulations 2, 3 and 4 of the Guidelines on Access to Biological Resources and Associated Knowledge and Benefits Sharing Regulations, 2014 only clarifies and follows what is there in the Act and it is **intra vires** the Act."*

Chapter- VII Conclusion and Suggestions- In this chapter conclude the above mentioned chapters and thereafter given some valuable suggestions.

SUGGESTIONS

Apart from the above made concluding observations, the following are suggestions to address the issues and challenges of access benefits sharing under biodiversity law and policy:

- Biodiversity is essential for the maintenance and sustainable utilization of goods and services from ecological system as well as from the individual species.
- There is need to harmonize these provisions with the Biodiversity Conservation Act, in particular to enable local communities holding traditional knowledge of use of such biological material to benefit from providing access to such knowledge
- The alarming rate of species disappearance has become an overwhelming problem now a day. Restoration of degraded sites may help to abate the problem to some extent but it is hardly a variable alternative. As such method

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of sustainable development is an essential step conserving the world's biotic wealth.

- It is need of hour to change the approach to improve the quality of life by emphasizing better environmental quality, aesthetics, a culture, religion and bio-ethical issues rather than more and more material consumption.
- There is a need to create incentive mechanisms to encourage people to involve more actively in protection of Biodiversity.

RECOMMENDATIONS TO GOVERNMENT

These are the some valuable recommendations to government for deals of Access and benefit sharing:

- There is no exclusive law about to dealing the Access and benefit sharing thus, the reason government made separate enactment to deals issues and challenges relating Access to over natural resources' and equal distribution of benefits which is collected from biodiversity.
- The government has tack to step for awareness programme about Access and benefit sharing.
- The Intellectual property Rights regime keeping in the mind, the government should made the particular clear law for Biosphere and sustainable development.
- The government should have implement Section 21 of The Biological Diversity Act, 2002 in real meaning.
- The government should have implement policies related to Access and benefit sharing and its special component plan and make the plan should for develop the ABS committee's rights.
