**A STUDY OF INTERNATIONAL LEGAL REGIMES ON FLORA AND FAUNA**

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**Abstract**

Challenges that no nation can solve on its own are reshaping humanity's future. Environmental problems are now a worldwide concern, transcending country borders and regional viewpoints. The human race is aware that maintaining economic boundaries between rich and developing countries makes no sense and that instead, humanity should be viewed as the entire population of the planet. It takes multilateral cooperation to address the major global issues. As a result, the issue has gained international attention following the resolutions from conferences in Stockholm, Vienna, Montreal, Toronto, Kyoto, Delhi, and Johannesburg that attempted to strike a balance between the ever-increasing needs of growth and the finite environment.

**Keywords**: Forests; International Legal Regimes; Flora; Fauna; Environmental Laws.

**International Legal Regime on Flora and Fauna**

### Man has been developing a vast array of plants and animals since thousands of years. But this treasure house of both flora and fauna is shrinking severely as modern commercial agriculture focuses on relatively few crop varieties. Further, there is an increasing pressure on earth due to extreme pollution, while the mankind is busy cutting down the forests and creating more lands for themselves. While the loss of individual species catches our attention, it is the fragmentation, degradation, and outright loss of forests, coral reefs, and other ecosystems that poses the gravest threat to biological diversity. Forests are home to most of the known terrestrial biodiversity but about 45 per cent of the Earth’s original forests are gone, cleared mostly during the past century. Despite some widespread afforestation campaigns, the world’s total forests are still shrinking rapidly, particularly in the tropics. [[2]](#footnote-3)

### 2.

**3.1 International Agreements/Conventions etc. on Forests**

Since time immemorial the nations have debated upon coming to a consensus and agreement on forests. During Rio Declaration, the nations failed to come to an agreement on the aspect of Forest and it was not until early 2000 that UNFF was formed.

### 2.

**Relevance of United Nations Forum on Forests (UNFF)**

The United Nations Forum on Forests (UNFF) has its origins in the 1992 “Earth Summit”, or United Nations Conference on Environment and Development (UNCED). It was established as a UN subsidiary body in October 2000 as the main intergovernmental body that is addressing all policy and management aspects of all types of forests in comprehensive manner. Though it is non- legally binding but it is the responsibility of all member countries to implement it.[[3]](#footnote-4)

The Collaborative Partnership on Forests (CPF) was established in April 2001 to support the UNFF in implementing the IPF/IFF Proposals for Action. Currently the multiplicity of organizations is leading to fragmentation of forest policy causing duplication and overlaps and it has to be corrected. UNFF, together with the CPF established to support its work, in effect forms the present international arrangement on forests. The arrangement has among its tasks the strengthening of long-term political commitment to sustainable forest management and operation in a manner consistent with and complementary to existing legally binding instruments relevant to forests.[[4]](#footnote-5)

UNFF is also known as Non-Legally Binding Authoritative Statement of Principles for a global consensus on the Management, Conservation, and Sustainable Development of All Types of Forests, 1992, these principles discuss various factors of good forest governance especially the management of forest according to State government and local people’s needs.[[5]](#footnote-6) It emphasizes on transparent and accountable governance wherein the information regarding the status, use and rights of people with respect to natural resources is accessible for better participation. It is pertinent to note that the convention, despite its clear recognition of sovereign rights of the state over forests, highlights the rights and practices of the forest-dependent and indigenous people. These principles urge the states to take a facilitative role for the community forest management practices and equitable sharing of the benefits from the forests and traditional knowledge.

An enabling provision of the Forest Principles advises that the national policies and laws should promote sustainable growth so as to alleviate living conditions of indigenous communities. It foresees such growth of communities by promoting incentives and trainings for the better management of their forests. It recognizes the direct impact of local access to natural resources for the sustainable forest management.

Further, there are a few conventions that have a direct connect to the forests and address the issue of forests at the international level. These include Convention on Biological Diversity (CBD), United Nations Framework on Climate Change (UNFCC) and United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (UNCCD). Amongst these CBD and UNFCC will be discussed in the coming chapters in this module.

**Relevance of the United Nations Convention to Combat Desertification in those Countries experiencing Serious Drought and/or Desertification, particularly in Africa (UNCCD) to International regime on Forests**

UNCCD aims at combating desertification, mitigating the effects of drought and contributing to sustainable development. This involves long-term strategies that focus on improved productivity of land and on the rehabilitation, conservation and sustainable management of land and water resources, leading to improved living conditions for people. Protection and expansion of forests are important elements in UNCCD, since forests have significant ecological functions that mitigate effects of drought and prevent desertification. Strategies to deal with desertification are likely to mitigate forest loss as well, and vice versa. Intact forest ecosystems help stabilize the soil; consequently, deforestation fosters both desertification and land degradation. Deforestation has serious consequences in terms of water runoff, soil erosion and loss of soil fertility.**[[6]](#footnote-7)**

In addition to this ecological connection, the underlying socio-economic conditions and causes of forest loss and desertification are very similar. Deforestation and other unsustainable forestry practices carried out by poor rural communities for economic, commercial or survival purposes have contributed to land degradation and loss of soil fertility in many developing countries. Sustainable forest management is an important part of the corrective actions envisaged under UNCCD to tackle land degradation, promote sustainable agricultural and rural development and reduce rural poverty.

The significance of UNCCD for forests is potentially enormous, but the lack of implementation and compliance with the convention and persistent uncertainties regarding funding make it difficult for UNCCD to define its work programme more precisely in regard to the inclusion of forests.**[[7]](#footnote-8)**

**3.2 International Legal Regime on Wildlife**

**Significant features of the Convention on International Trade in Endangered Species of Wild Fauna and Flora**

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), is an international inter governmental convention aimed at providing various degrees of protection to endangered forest species which are subject to international trade, which came into force on July 1, 1975. Although CITES is legally binding on the Parties (member States) – in other words they have to implement the Convention – it does not take the place of national laws. Rather it provides a framework to be respected by each Party, which has to adopt its own domestic legislation to ensure that CITES, is implemented at the national level. India was the twenty-fifth nation State to become a Party[[8]](#footnote-9) to the CITES. [[9]](#footnote-10)

The CITES states “that peoples and states are and should be the best protectors of their own wild fauna and flora” and further that “international cooperation is essential for the protection of certain species of wild fauna and flora against over-exploitation through international trade”. It recognizes the importance of endangered species and threat faced by them. CITES further, urges the management authorities to engage and incentivize public for safeguarding such species from export.

CITES works by subjecting international trade in specimens of selected species to certain controls. All import, export, re-exports and introduction from the sea of species covered by the Convention has to be authorized through a licensing system. Each Party to the Convention must designate one or more Management Authorities in charge of administering that licensing system and one or more Scientific Authorities to advise them on the effects of trade on the status of the species.[[10]](#footnote-11) It categorizes species in terms of the extent of the threats they face and consequently the varying degrees of regulation they require. The Convention further deals with the modalities of regulation of trade in specimens of species included in the above said three categories/ appendices. The Contracting parties are also required to take appropriate measures-including provisions for penalty and confiscation-to prohibit trade in the specimens of species and to enforce the provisions of the Convention.

a. Three Appendices under CITES[[11]](#footnote-12)

* Appendix –Iof the Conventionlists all the species threatened with extinction and are the most endangered species of animals & plants. The criteria for adding species to Appendix-I, specify that if the status of a species is seriously declining it should be listed even if there is only a probability of trade. In addition, whole generation should be listed “if most of their species are threatened with extinction and if identification of individual species within the genus is difficult.” The objective of this requirement is to control trade in species, even if they are widespread and common, which look alike and could be confused with a threatened species. The same has been done in order to not endanger the already endangered species any further, no permits are issued for international trade in these species unless there are exceptional circumstances.
* Appendix – IIis intended to regulate international trade in species which are not sufficiently endangered to warrant inclusion in Appendix – I, but which could become endangered unless trade in them is controlled. Its purpose is also to control trade in species, which are similar in appearance to and could be confused with those listed in Appendix-I. International trade in these species is permitted with proper documentation issued by the Government of the exporting country.
* Appendix – III is meant to provide a mechanism whereby a Party which regulates trade in a species not listed in Appendix – I or it can seek international help in enforcing that regulation. Any party can list a species in Appendix – III for this purpose. For instance, India has invoked this provision of CITES for seeking international help in controlling smuggling of reptile skins by listing four species of snakes in Appendix – III.

Further, Articles III, IV and V of the Convention deals with the modalities of regulation of trade in specimens of species included in the abovesaid three appendices. The Contracting parties are also required to take appropriate measures-including provisions for penalty and confiscation-to prohibit trade in the specimens of species and to enforce the provisions of the Convention.[[12]](#footnote-13) It is also made clear that the Convention would in no way affect the right of parties to adopt stricter domestic measures regarding the conditions (including complete prohibition) for trade, taking, possession or transport of specimens of species included in Appendices of the Convention.

**Convention on the Conservation of Migratory Species of Wild Animals 1979**

The Convention requires parties to conserve migratory species paying special attention to ‘species the conservation status of which is ‘unfavourable[[13]](#footnote-14).

The various Appendices of the Convention are as follows:

Appendix I to the Convention contains a list of Endangered Migratory Species. It is pertinent to note that all the 5 species of sea turtles listed in Schedule I of the WLPA are also listed here.

Besides, migratory species with an ‘Unfavourable Conservation Status’ are listed in Appendix II under Article IV to the convention along with corresponding states’ obligations. Article V which lists the modalities of the International Agreements seeks to restore the migratory species concerned to a ‘Favourable Conservation Status’ and provides that each agreement should cover the whole range of the migratory species concerned and should be open to accession by all range states of that species, whether or not they are parties to this convention.

**Convention on Wetlands of International importance especially as Waterfowl Habitat/ Ramsar Convention 1971**

Each Contracting Party is required to designate suitable wetlands within its territory for inclusion in a list of wetlands of international importance (the List), to be maintained by the bureau. Besides, information regarding pollution or other human interference related developments in designated wetlands has to be given to the Bureau. The Convention, by Article 4,mandates the creation of nature reserves on wetlands, whether such wetlands are included in the List or not. India has enacted the Wetland Rules 2010 for protection of the wetlands and the Wetland Rules, 2016 are still in the draft stage.

Other international Conventions in relation to the Wildlife have also been adopted and passed such as International Convention for the Regulation of Whaling, 1946; Agreement on Conservation of Antarctic Seals in 1972; Agreement on Conservation of Polar Bears, 1973; and the Convention for Conservation and Management of Vicuna, 1974 etc.

**3.3 International Legal Regime on Biodiversity under the Convention on Biological Diversity, 1972**

The objectives of the Convention highlight the comprehensive approach of the Convention to the issue of biodiversity. The convention lays down specifically “the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits” arising therefrom as its objectives. The objectives of the CBD are-a) Conservation of Biological Diversity b) Sustainable use of the components of biological diversity, and c) Equitable sharing of the benefits arising out of the utilization of biological and genetic resources.

**Main principles arising in the Convention**

1. Access Regime: Nation States may condition access to their genetic resources on informed consent and other terms, which provides the potential for capturing most aspects of bioprospecting within enforceable and bilateral agreements.
2. Benefit Sharing: Each Contracting Party shall, as far as possible and as appropriate, subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge.[[14]](#footnote-15)
3. Free, prior and informed consent (FPIC): It is explained as, *“the right of indigenous peoples to make free and informed choices about the development of their lands and resources. The basic principles of FPIC are to ensure that indigenous peoples are not coerced or intimidated, that their consent is sought and freely given prior to the authorisation or start of any activities, that they have full information about the scope and impacts of any proposed developments, and that ultimately their choices to give or withhold consent are respected.”*[[15]](#footnote-16) It is mandated under the CBD that sufficient information should be provided to the local communities, by parties wanting to utilize the biological resources or associated TK, regarding the aims, risks, implications, etc. of using the knowledge, including its potential commercial value.[[16]](#footnote-17)
4. Sovereign Right over Genetic Resources: During the period of the Green Revolution, the question of intellectual property rights and ownership with respect to these aspects were very much subordinated to the mission to increase crop yields to feed a burgeoning world population. It has only been in the recent times that ownership issues have become important either as a bargaining counter in the developed and developing countries negotiations or as a source of revenue.

The Article while laying down the aforementioned objectives (Article 1) gives an insight into the means with which to achieve them. The Article requires that appropriate access to genetic resources, appropriate transfer of relevant technologies, appropriate funding and taking into account of all right over the resources and technologies are crucial to achieve the above said objectives.[[17]](#footnote-18) Further, the Convention requires that each contracting party shall develop (or adopt) national strategies, plans or programmes for conservation and sustainable use of biological diversity and integrate these into sectoral/cross-sectoral plans. Article 8 of the Convention requires the need to develop regulatory provisions for the protection of threatened species.

Two types of conservation, which are *ex- situ* or *in- situ* are explained within the Convention. The contribution of the indigenous communities in conserving the environment through traditional knowledge, innovations and practices which is a part of *in- situ* conservation is also acknowledged through the text of the Convention. Further on, it encourages the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices. Each Contracting Party has to put into place appropriate frameworks to enable the benefit-sharing referred to in the above given provisions to take place.[[18]](#footnote-19) The parties to the convention are obligated to adopt the provisions of the Conventions into their national decision making.[[19]](#footnote-20)

**Recent developments concerning the Convention**

1. Bonn Guidelines on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising from their Utilization 2002 was an evolutionary step in the implementation of ABS provisions of the Convention. The **Working Group on Article 8(j) and Related Provisions**[[20]](#footnote-21) developed the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization*,*[[21]](#footnote-22) which were adopted by the Conference of the Parties in 2002. These Guidelines are indicative only and not prescriptive and should be adapted to national circumstances. They provide a comprehensive checklist as to the issues which should be taken into consideration, and, more importantly, the methodology that should be employed in terms of access and benefit sharing agreements in conformity with the objectives of the CBD.
2. The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization of 2010 is the current protocol on the implementation of ABS provisions of CBD. India, along with 10 other countries, has signed the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, which was adopted in Japan at the 10th meeting of the Conference of Parties to the CBD.[[22]](#footnote-23) Objective of the Protocol is to share the benefits arising from the utilisation of genetic resources in a fair and equitable way, which would promote sustainable use of biological diversity but not exploit it or those who claim a right over its components.[[23]](#footnote-24)
3. The Akwe Kon Voluntary Guidelines: Conference of the Parties VII, 2004 under the aegis of CBD adopted the Akwe Kon Voluntary Guidelines for tribal communities, recognizing the close bond they share with the biological resources.[[24]](#footnote-25) This complements the CBD’s Articles 8(j) and 10 (c) relating to tribal communities. Parties are recommended to consider these guidelines whenever developmental activities are proposed to be taken on sacred sites and land, which they have traditionally been occupying or using for a long time.
4. Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity, 2004[[25]](#footnote-26):These principles are on the same lines as the previously mentioned guidelines, providing a framework for advising governments, resource managers, tribal and local communities, the private sector and other stakeholders about how they can ensure that their use of the components of biodiversity will not lead to the long-term decline of biological diversity.

Further, other Conventions relating to Biodiversity such as the African Convention on the Conservation of Nature and Natural Resources*[[26]](#footnote-27)* creates a protected natural resource area and defines it as the “Conservation area”[[27]](#footnote-28). Further it categorizes the conservation area into strict nature reserve, national park, special reserve, and partial reserve or sanctuary. Likewise, the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere also attempts to classify the PAs separately and in accordance with their different needs for protection, conservation or utilization of natural resources.[[28]](#footnote-29)

**3.4 International Treaty on Plant Genetic resource for Food and Agriculture (ITPGRFA)**

The ITPGRFA seeks to ensure that the plant genetic resources of economic and/or social interest, particularly for agriculture, will be explored, preserved, evaluated and made available for plant breeding and scientific purposes. It also ensures the fair and equitable benefit sharing arising from its use. It also recognizes Farmers' Rights: to freely access genetic resources, unrestricted by intellectual property rights; to be involved in relevant policy discussions and decision making; and to use, save, sell and exchange seeds, subject to national laws.[[29]](#footnote-30)

For a list of 64 of some of the most important food and forage crops[[30]](#footnote-31) (listed in Annex 1 to the treaty) essential for food security and interdependence, the treaty has implemented a Multilateral System (MLS) of access and benefit sharing, among those countries that ratify the treaty.[[31]](#footnote-32) The treaty encourages the conservation of plant genetic resources through national and international *in situ* and *ex situ* collections of seeds and plants.

**Indian response to ITPGRFA**

India is among the first countries in the world to have passed legislation granting Farmers’ Rights in the form of the Protection of Plant Varieties and Farmers’ Rights Act, 2001 (PPVFR). The Act not only meets the TRIPS requirement but simultaneously incorporates UPOV and provisions of ITPGRFA. India’s law is unique in that it concurrently aims to protect both breeders and farmers. India’s case is significant as the Indian gene centre is recognised for its native wealth of plant genetic resources. The PPVFR Act also provides for recognition and reward, based on the contribution of farmers to conserve and preserve the genetic resources of land races and wild relatives, which have formed the basis for the development of registrable varieties[[32]](#footnote-33). The reward is to be given from gene fund. In 2007, the PPVFR Authority started the Plant Genome Savior Community Recognition for this purpose.[[33]](#footnote-34)



1. Ph.D. Research Scholar, JRN Rajasthan Vidyapeeth (Deemed to be University), Udaipur [↑](#footnote-ref-2)
2. http://awsassets.wwfindia.org/downloads/mea\_handbook\_cel.pdf [↑](#footnote-ref-3)
3. Available at < <http://www.un.org/esa/forests/> > [↑](#footnote-ref-4)
4. Available at < <http://www.mgp-forests.org/mgpof/unff/> > [↑](#footnote-ref-5)
5. Art. 2 available at

   <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N07/469/65/PDF/N0746965.pdf?OpenElement> > [↑](#footnote-ref-6)
6. Christine Fuchs, UNCCD Recent Developments, Max Planck Yearbook of United Nations Law, volume 12, 2008 available at < <http://www.mpil.de/files/pdf3/mpunyb_07_fuchs_12.pdf> > [↑](#footnote-ref-7)
7. Available at < <http://www.fao.org/docrep/003/y1237e/y1237e03.htm>> [↑](#footnote-ref-8)
8. Entered into force in India on18/10/1976 [↑](#footnote-ref-9)
9. Available at < <http://www.cites.org/eng/disc/what.php> > [↑](#footnote-ref-10)
10. Available at < <http://www.cites.org/eng/disc/how.php> > [↑](#footnote-ref-11)
11. Refer to < <http://www.vanashakti.in/international_Law.html> >for further reading [↑](#footnote-ref-12)
12. Refer to Article VIII of the Convention. Each Party is also required to designate Management and Scientific Authorities for the purposes of the Convention (Article IX ) available at < <https://cites.org/eng/disc/text.php> > [↑](#footnote-ref-13)
13. Article I, Convention on the Conservation of Migratory Species of Wild Animals 1979 in 1983 available at

    <<http://www.cms.int/en/convention-text> > [↑](#footnote-ref-14)
14. Article 8(j), CBD available at < https://www.cbd.int/convention/text/ > [↑](#footnote-ref-15)
15. U.N. Commission on Human Rights, Sub-Committee on the Promotion and Protection of Human Rights Working Group on Indigenous Populations, *Working Paper: Standard-Setting: Legal Commentary on the Concept of Free, Prior and Informed Consent*, 57, U.N. Doc. E/CN.4/Sub.2/AC.4/2005/WP.1, 2005 (July 14, 2005) (prepared by Antoanella-Iulia Motoc and the Tebtebba Foundation) available at

    <<http://www.law.northwestern.edu/journals/jihr/v10/n2/2/> > [↑](#footnote-ref-16)
16. Article 8 (j), CBD available at < https://www.cbd.int/convention/text/ > [↑](#footnote-ref-17)
17. Refer to Article-15 (Access to genetic resources), Article-16 (Access to and Transfer of Technology) and Article-20,21 (Financial resources and Financial Mechanism) available at

    <https://www.cbd.int/convention/text/ > [↑](#footnote-ref-18)
18. Articles 19(1) and (2), CBD available at < https://www.cbd.int/convention/text/ > [↑](#footnote-ref-19)
19. Refer to < <https://www.cbd.int/gbo1/chap-02.shtml> > for further reading [↑](#footnote-ref-20)
20. **Working Group on Article 8(j) and Related Provisions,** COP8, Curitiba, Brazil, 20-31 March, 2006, available at < <http://cmsdata.iucn.org/downloads/8j_english_formatted.pdf> >. [↑](#footnote-ref-21)
21. Available at < <http://www.cbd.int/doc/publications/cbd-bonn-gdls-en.pdf> > [↑](#footnote-ref-22)
22. Refer to < <http://www.thehindubusinessline.com/industry-and-economy/article2011605.ece> > [↑](#footnote-ref-23)
23. Available at < <http://www.cbd.int/abs/> > [↑](#footnote-ref-24)
24. Available at < <http://www.cbd.int/doc/publications/akwe-brochure-en.pdf> > [↑](#footnote-ref-25)
25. Available at http://www.cbd.int/convention/about.shtml [↑](#footnote-ref-26)
26. The Convention was concluded at Algiers on 15, September 1968 and was enter into force on 16, June, 1969 India is not a party to this Convention. [↑](#footnote-ref-27)
27. See Article III of the Convention available at

    <<http://sedac.ciesin.org/entri/texts/african.conv.conserva.1969.html> >. [↑](#footnote-ref-28)
28. This Convention was concluded at Washington on 12, October 1940 and was brought into force on 1st May in 1942 India is not a signatory to this Convention though the principles elucidated by it has its persuasive values. [↑](#footnote-ref-29)
29. Available at < <ftp://ftp.fao.org/docrep/fao/011/i0510e/i0510e.pdf> > [↑](#footnote-ref-30)
30. Annex 1, ITPGRFA available at < <http://www.fao.org/plant-treaty/overview/texts-treaty/en/> > [↑](#footnote-ref-31)
31. Plant genetic resources for food and agriculture means any genetic material of plant origin of actual or potential refer to < <http://www.fao.org/fileadmin/user_upload/legal/docs/033t-e.pdf> > for further understanding [↑](#footnote-ref-32)
32. Section 39 (1) (iii) available at < <http://lawmin.nic.in/ld/P-ACT/2001/The%20Protection%20of%20Plant%20Varieties%20and%20Farmers%E2%80%99%20Rights%20Act,%202001.pdf> > [↑](#footnote-ref-33)
33. Journal of Intellectual Property Rights Vol 16, March 2011, pp 107-116 available at

    <<http://nopr.niscair.res.in/handle/123456789/11568> > [↑](#footnote-ref-34)