



WIPO Treaty Protecting Genetic Resources and Traditional Knowledge

For Prelims: [World Intellectual Property Organization](#), [Intellectual property rights](#), [Biopiracy](#), [Ayurveda](#), [GI Tag](#), [Trademarks](#)

For Mains: Issues relating to Intellectual Property Rights, Protection of biodiversity and traditional wisdom, Indian genetic resources and associated traditional knowledge

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Why in News?

The recently concluded [World Intellectual Property Organization \(WIPO\) treaty on Intellectual Property \(IP\), Genetic Resources \(GRs\), and Associated Traditional Knowledge \(ATK\)](#) is a significant win for countries of the global South including India.

- The treaty has been adopted at a multilateral forum with a consensus among more than 150 countries, including the majority of the developed economies.

What does the WIPO Treaty Entail?

- **Protection of Biodiversity:** The WIPO Treaty aims to balance the **rights of countries rich in biodiversity and traditional wisdom** with the global [Intellectual Property Rights \(IPR\) system](#).
 - For the first time the **system of knowledge and wisdom** which have supported economies, societies and cultures for centuries are now inscribed into the global IP system.
- **Inclusive Innovation:** It promotes inclusive innovation by recognising the connection between local communities and their **GRs and ATK**.
- **Disclosure Requirements:** The treaty will require contracting parties to put in place **mandatory disclosure obligations for patent** applicants to disclose the country of origin or source of the genetic resources when the claimed invention is based on genetic resources or associated traditional knowledge.

World Intellectual Property Organisation

- It is the global forum for **Intellectual Property (IP) services**, policy, information and cooperation. It is a self-funding agency of the [United Nations](#), with 193 member **states including India**.
- Its mission is to lead the development of a balanced and effective international IP system that enables innovation and creativity for the benefit of all.
- WIPO defines Traditional knowledge (TK) as knowledge, know-how, skills and practices that are **developed, sustained and passed on from generation to generation within a community**, often forming part of its cultural or spiritual identity.

Note

- Genetic resources (GRs) are defined in the [Convention on Biological Diversity](#), 1992 (CBD) as genetic material of plant, animal, microbial or other origin containing functional units of heredity that **has actual or potential value**.
- Examples include medicinal plants, agricultural crops and animal breeds.

How is this Treaty Significant for India and the Global South?

- **India:** India is a **mega biodiversity hotspot** with an abundance of traditional knowledge and wisdom, and this treaty marks the first time that these systems of knowledge and wisdom are inscribed into the global IP system.
 - **Prevention of Misappropriation:** The treaty prevents the misappropriation of Indian GRs and ATK in countries without existing disclosure obligations establishing mandatory disclosure obligations, the **treaty offers added protection to Indian GRs and TK**, preventing their misappropriation in countries without such laws.
 - This recognition is crucial as **several [Indian herbs and products](#) have been falsely claimed as foreign inventions in the past**, leading to patent applications that India has contested.
 - **Global Standards:** It sets unprecedented global standards within the IP system for provider countries of GRs and ATK.
- **Global South:** The Global South holds a wealth of traditional knowledge on medicinal plants, agriculture, and other aspects of life, passed down through generations. The WIPO Treaty protects this knowledge from misappropriation.
 - The WIPO Treaty helps **combat [biopiracy](#) by establishing a legal framework to protect genetic resources** and traditional knowledge from unauthorised commercial exploitation.

What are the Past Cases Surrounding Traditional Knowledge and Genetic Resources in IPR?

- **Traditional Knowledge:**
 - **The Turmeric Case:** Turmeric, a tropical herb from India, is widely used in the country for medicinal, culinary, and dye purposes. It is used as a blood purifier, for treating the common cold, and as an antiparasitic for skin infections.
 - In 1995, the **US issued a patent for using turmeric powder for wound healing** to the University of Mississippi Medical Center, but it was later revoked due to prior art evidence provided by the [Indian Council for Science and Industrial Research \(CSIR\)](#).
 - **The Neem Case:** It raised a controversy over a patent granted to a company W.R. Grace for a formulation using the active ingredient azadirachtin from the neem plant.
 - **Traditional medicine systems like [Ayurveda and Unani](#)** have long recognised neem's medicinal and pesticide properties.
 - However, the patent granted the company exclusive rights to use azadirachtin (extract of fruit from the Neem tree) in a specific storage solution.
 - This sparked an outcry and led to re-examination and opposition proceedings at the United States Patent and Trademark Office (USPTO) and the European Patent Office (EPO). While the USPTO upheld the patent, the **EPO ultimately ruled against it, stating it lacked innovation**.
- **Genetic Resources:**
 - **Wheat Varieties Case (2003):** The case involves biopiracy of Indian **wheat varieties known as Nap Hal and Nap Hal-49**, which were patented by a European company claiming to be the inventors.
 - Indian authorities intervened and provided evidence that these wheat varieties originally belonged to India, were its natural resources and crop varieties, and were

not novel inventions. As a result, the patents were revoked.

- **Basmati Rice Case (2000):** It involved a US company being granted a patent for [Basmati rice by the USPTO](#).
 - The applicants falsely claimed to have invented the new variety, leading to conflict between Indian and American agricultural organisations.
 - Eventually, the patent claims were narrowed down when the applicants admitted they didn't invent Basmati rice.

What are India's Initiatives Related to Protecting Traditional Knowledge and Genetic Resources?

▪ Traditional Knowledge:

◦ Traditional Knowledge Digital Library:

- The TKDL is a **comprehensive database of medicinal formulations** in various languages.
- Established in 2001, the TKDL was created in response to **India's challenges in overturning patents** on traditional remedies like turmeric and neem.
- This initiative, a joint effort by the **CSIR** and the [Department of AYUSH](#), aims to safeguard India's rich medicinal knowledge from being patented erroneously, which was happening at an estimated rate of 2,000 cases per year.
- The TKDL has been pivotal in protecting India's traditional medicinal systems from misappropriation globally.

◦ [Patents \(Amendment\) Act, 2005](#): It aims to protect the rights of indigenous communities by **obligating patent applicants to disclose the origin of biological resources in their inventions**.

- Failure to disclose this information, especially related to TK, may result in the refusal of the patent.

◦ **Trademark Act, 1999**: [Trademarks](#) are based on the principles of distinguishability and avoiding confusion. They differentiate goods and prevent confusion about the source of a product.

- The act allows for the **protection of agricultural and biological products, including those from indigenous communities**.
- Indigenous groups can use trademark registration to differentiate their brand and guarantee unique quality.

◦ [Biological Diversity Act, 2002](#)

◦ [Geographical Indications \(GI\)](#)

▪ Genetic Resources:

◦ [National Gene Bank](#)

◦ **Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001**: Plant breeders and farmers providing **Plant Genetic Resources (PGR)** for developing new varieties should receive a **fair share of commercial gains**.

- The [PPV&FR Act 2001](#), is the first to include a provision for access and benefit-sharing (ABS) along with Plant Breeder's Rights (PBRs).

◦ **National Bureau of Plant Genetic Resources (NBPGR)**: It is an Indian institute working under the [Indian Council of Agricultural Research \(ICAR\)](#). It plays a pivotal role in conserving and protecting the genetic diversity of cultivated plants and their wild relatives in India.

◦ **National Bureau of Animal Genetic Resources (NBAGR)**: As a part of ICAR, NBAGR aims to conserve, characterise, and utilise animal genetic resources for sustainable livestock development in India. It maintains a **genbank repository of the National Bureau of Animal Genetic Resources**.

◦ **Microbial and Insect Biodiversity: National Bureau of Agriculturally Important Insects (NBAII)** serves as a nodal agency for collection, characterization, documentation, conservation, exchange, and utilisation of agriculturally important insect resources.

International initiatives for Access and Benefit-sharing of GR and TK

▪ [Convention on Biological Diversity](#)

- [Nagoya Protocol](#)
- [TRIPS agreement](#)
- [International Treaty on Plant Genetic Resources for Food and Agriculture](#)
- [Commission on Genetic Resources for Food and Agriculture](#)
- [UNESCO's Local and Indigenous Knowledge Systems \(LINKS\)](#): It is an interdisciplinary initiative that promotes indigenous and local knowledge and its meaningful inclusion in environmental policy and action.

Drishhti Mains Question:

Q. Evaluate India's initiatives related to protecting traditional knowledge. How do these initiatives contribute to safeguarding India's rich medicinal knowledge and biodiversity resources?

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims

Q. With reference to the 'National Intellectual Property Rights Policy', consider the following statements: (2017)

1. It reiterates India's commitment to the Doha Development Agenda and the TRIPS Agreement.
2. Department of Industrial Policy and Promotion is the nodal agency for regulating intellectual property rights in India.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (c)

Q. Consider the following statements: (2019)

1. According to the Indian Patents Act, a biological process to create a seed can be patented in India.
2. In India, there is no Intellectual Property Appellate Board.
3. Plant varieties are not eligible to be patented in India.

Which of the statements given above is/are correct?

- (a) 1 and 3 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3

Ans: (c)

Mains

Q. In a globalized world, Intellectual Property Rights assume significance and are a source of litigation. Broadly distinguish between the terms—Copyrights, Patents and Trade Secrets. (2014)

