



# 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

**Source:** [PIB](#)

## 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 is the Significance of the WIPO Treaty?

- **Inscription of TK and Wisdom into the Global IP System:** The treaty marks the first time that traditional knowledge and wisdom systems are being inscribed into the global intellectual property (IP) system.
  - The treaty sets unprecedented global standards within the IP system for provider countries of GRs and ATK.
- **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](#).
- **Inclusive Innovation:** It promotes inclusive innovation by recognising the connection between local communities and their **GRs and ATK**.
  - The treaty protects the wealth of traditional knowledge on medicinal plants, agriculture, and other aspects of life, passed down through generations, from misappropriation.
- **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.
  - The WIPO Treaty helps **combat [biopiracy](#) by establishing a legal framework to**

**protect GRs** and traditional knowledge from unauthorised commercial exploitation.

- **Prevention of Misappropriation:** The treaty establishes mandatory disclosure obligations, which offer added protection to prevent the misappropriation of GRs and ATK in countries without existing disclosure laws.
  - The recognition is crucial as several traditional herbs and products have been falsely claimed as foreign inventions in the past, leading to contested patent applications.

## 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.

## 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](#) : It was enacted to provide for the conservation of biological diversity, sustainable use of its components, and **fair and equitable sharing of the benefits** arising out of the use of biological resources and traditional knowledge.

#### ◦ [Geographical Indications \(GI\)](#) : It is a designation applied to products originating from a specific geographical area, indicating that the qualities or reputation of the products are **inherently linked to that particular origin**.

### ▪ Genetic Resources:

#### ◦ [National Gene Bank](#) : It was established in 1996 to preserve the seeds of Plant Genetic Resources (PGR) for future generations. It has the capacity to preserve about **one million germplasm** (living tissue from which new plants can be grown) in the form of seeds.

#### ◦ **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.

### Drishti 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)**

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