Q15

How is the Government of India protecting traditional knowledge of medicine from patenting by pharmaceutical companies?

UPSC Civil Services Mains 2019 · GS III · 15 marks · Indian Economy

Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

Core demand of the question

- Explain how India protects traditional medical knowledge from patents by pharmaceutical firms
- Cover TKDL, Patents Act exclusions, Biodiversity Act, GIs, and AYUSH
- Note turmeric, neem, and remaining gaps

Revision summary

TKDL puts classical Indian medical texts in a form patent examiners can search, so claims fail for lack of novelty.

The Patents Act excludes traditional knowledge as such and limits evergreening of known substances.

The Biological Diversity Act requires approval and benefit-sharing for many uses of Indian bio-resources and associated knowledge.

Turmeric, neem, and Basmati disputes showed why a defensive library was built.

Undocumented folk knowledge and a fair commercial share remain weaker than the patent shield.

Introduction

Indian medicine - **Ayurveda, Siddha, Unani, Yoga, folk healing** - is old public knowledge. A firm that patents a turmeric wound use or a neem extract as a "new invention" can lock others out. India fights that with a **defensive database**, with **what the Patents Act refuses to grant**, and with **biodiversity access rules**. The aim is not to stop honest research. It is to stop **biopiracy**: private monopoly over what communities already knew.

Body

Traditional Knowledge Digital Library (TKDL)

- **TKDL** is a joint **Council of Scientific and Industrial Research (CSIR)** and **Ministry of AYUSH** project. It transcribes formulations from classical texts into **structured, searchable, multilingual** records (including patent-examiner languages).
- India has **access agreements** with major patent offices (including the European Patent Office and others) so examiners can find **prior art** and refuse or narrow claims.
- **This is** defensive publication**:** the knowledge is documented so it is not "novel". It does not by itself pay the village that kept the plant.

• **Documented wins after earlier disputes: turmeric** (wound healing), **neem** (fungicidal properties), and **Basmati** rice lines were fought in foreign offices; TKDL was built so the next examiner sees the text before a grant.

Patent law inside India

• **Patents Act, 1970 (as amended): section 3(p)** excludes an invention which in effect is **traditional knowledge** or an aggregation of known properties of traditionally known components.

• **Section 3(d)** blocks evergreening of known substances unless there is a new therapeutic efficacy - relevant when a firm slightly modifies a known plant isolate.

• **Section 3(e)** and other clauses limit mere admixtures. Pre-grant and post-grant **opposition** let CSIR, AYUSH, or public-interest groups challenge a claim.

• Disclosure of **biological material** and **geographical origin** in the application supports examination.

Biodiversity and community tools

• **Biological Diversity Act, 2002:** National Biodiversity Authority and State boards regulate access to Indian biological resources and associated knowledge; **prior approval** and **benefit-sharing** are required for certain research, patents, and commercial use, especially involving foreigners or specified firms.

• **People's Biodiversity Registers** record local knowledge at panchayat scale - a grassroots prior-art layer if they are actually maintained.

• **Geographical Indications** (for example on some agricultural and traditional goods) protect names, not medical formulae, but they stop a foreign brand from capturing a place-linked product.

• **Nagoya Protocol** on access and benefit-sharing sits behind the same logic internationally.

Institutions and positive protection

• **Ministry of AYUSH**, pharmacopoeias, and research councils (CCRAS and others) standardise and clinically test, so the knowledge can be used as a **public system**, not only as a patent shield.

• **Yoga** and some well-known practices were also the target of foreign patent attempts; documentation and diplomatic protest were the response.

Limits and recommendations

• TKDL covers **codified classical** texts better than **undocumented tribal** medicine. Expand community registers with consent and benefit-sharing, not extraction.

• Defensive protection **stops a bad patent**; it does not create an **Indian product** or a royalty for the holder of the knowledge. Pair TKDL with **NBA contracts** and public-sector formulation brands.

• Watch **evergreening** of isolates and **process patents** that skirt 3(p).

• Harmonise **speed of NBA clearance** so genuine research is not driven underground while pirates still file abroad.

• Train more examiners on TKDL and keep the library updated in more languages and oral traditions (with ethics).

Flow diagram

Traditional medical knowledge -> TKDL prior art prior art

Traditional medical knowledge -> Patents Act 3p 3d opposition

Traditional medical knowledge -> Biodiversity Act NBA ABS

TKDL prior art -> Refuse biopiracy patent

Patents Act 3p 3d opposition -> Refuse biopiracy patent

Biodiversity Act NBA ABS -> Benefit sharing

Conclusion

India protects traditional medical knowledge mainly by TKDL prior art in foreign and Indian examination, by Patents Act exclusions such as section 3(p), by Biodiversity Act access and benefit-sharing, and by AYUSH documentation. Turmeric and neem taught the cost of arriving late. The remaining gap is undocumented community knowledge and a fair share when a real product is made - not only a refused patent.

Facts & figures

TKDL

Traditional Knowledge Digital Library (CSIR and AYUSH): structured prior-art database of classical formulations for patent offices.

Section 3(p)

Patents Act clause that traditional knowledge, or a mere aggregation of known traditional properties, is not an invention.

Biological Diversity Act 2002

Regulates access to biological resources and associated knowledge; National Biodiversity Authority oversees approvals and benefit-sharing.

Turmeric and neem

Famous biopiracy contests in foreign patent offices that India fought using historical and scientific evidence.

Nagoya Protocol

International access-and-benefit-sharing treaty that supports India's biodiversity bargaining position.