



Ministry of Commerce and Industry Department for Promotion of Industry and Internal Trade Office of the Controller General of Patents, Designs & Trademarks (O/o CGPDTM)

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An Induction Journey at IP Office

Inventions not patentable- 360 degrees

<u>approach</u>

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THE PATENTS ACT, 1970

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<u>Flow</u>





Historical evolution of Not Patentable Inventions





Dr. Bakshi Tek Chand Committee (1948-50) Justice Rajagopal Ayyangar Committee (1957-59)

- suggest appropriate measures <u>to align the provisions of the</u> <u>Indian Patents Act with national priorities.</u>
- Recommendations influenced the provisions of the **Patents Act, 1970**,
- enacted to promote innovation and technological selfreliance,
- same time addressing public health and social concerns.
- <u>restricted certain categories of inventions</u>
- Striking a balance b/w innovation and socio-economic reality



key recommendations of the committees

Inventions Contradicting Public Order, Morality, or Health	found its way into <u>Section 3(b)</u>
Inventions related to Agriculture	incorporated as Section 3(h)
Inventions related to Medical Treatment and Surgery	incorporated as <u>Section 3(i).</u>
Pharmaceutical Patents and Public Health	Incorporated in section 3(d)
Exclusion of Aesthetic Creations	Incorporated in section 3(I)
Inventions Related to Atomic Energy	Incorporated in <u>section 4 of Patent Act</u> & Section 20 of Atomic Energy Act 1962



Section 3

- defines categories of <u>inventions that are not patentable</u>
- even if they <u>met other patent criteria</u> (novelty, inventiveness, industrial applicability),
- could have a <u>negative impact</u> on *public health, social justice, or morality*, and
- To protect national interests, economic priorities, and unique needs of a developing country.
- to ensure that patents are granted only for innovations that truly contribute to technological advancement.
- To maintain distinct legal frameworks for protecting different forms of intellectual property and provides a clear boundary between patentable inventions and other IPR.



Original Section 3 Exclusions (1970 Act)

Total 9 exclusions under Section

3

a. Frivolous or Obvious Inventions b. Contrary to Law/Morality/Health c. Scientific Discovery d. New Use or Property e. Admixture Aggregation f. Rearrangement of Devices g. Manufacturing Efficiency h. Agricultural Methods i. Medical/Surgical Treatments



How many exclusions exist under Section 3?

9?

NO

The exclusions have undergone several changes to align with the obligations under TRIPS.

• TRIPS—> Trade-Related Aspects of Intellectual Property Rights



TRIPS Compliance of the Exclusions



Umbrella	Agreement Establishing the WTO		
	Goods	Services	Intellectual property
Basic Principles	GATT	GATS	TRIPS

1 January 1995 The World Trade Organization (WTO) is an international organization that <u>regulates</u> <u>trade between countries</u>. The WTO's goal is to ensure that <u>trade flows smoothly</u>, <u>freely, and predictably</u>.

India is a founding member of the World Trade Organization (WTO).



TRIPS Compliance of the Exclusions

- TRIPS Agreement : sets the minimum standards for intellectual property (IP) regulation.
- National treatment to foreign nationals/entities
- was required to amend its patent laws to comply with the TRIPS Agreement by January 1, 2005.
- led to the significant amendment of the Indian Patents Act, 1970
- Utilise certain flexibilities available under the TRIPS Article 27.



Flexibilities available under the TRIPS

<u>TRIPS Article 27.2</u> permits member countries to exclude patents for inventions that are contrary to public order or morality	Inventions Contrary to Public Order or Morality (Section 3(b))
TRIPS Article 27.2 and subsequent Doha Declaration on TRIPS Agreement and Public Health (2001) made it clear that public health priorities should take precedence over patent protection when necessary.	India included Section 3(d) in the 2005 amendments to prevent companies from gaining patents on trivial changes to existing drugs Ever greening
Article 27.3(a) countries are permitted to exclude certain medical practices from patentability	Inventions Relating to Medical Treatment, Surgery, and Diagnostic Methods (Section 3(i))
TRIPS <u>Article 27.3(b)</u> provides that countries may exclude plants and animals from patentability	Plants, Animals, and Biological Processes for Production (Section 3(j))
Software patents (in isolation) are not mandatory under TRIPS	Mathematical or Business Methods, Computer Programs (Section 3(k))



Sub-Section wise analysis of Exclusions under Section 3 of the Act





THE PATENTS ACT, 1970

CHAPTER II INVENTIONS NOT PATENTABLE

Section 3

What are not inventions

The following are not inventions within the meaning of this Act,-

Sub sections 3(a) -3(p) ; 3(g) omitted in compliance to TRIPS ; total 15 subsections



Sub-Section wise analysis of Exclusions under Section 3 of the Act

• Section 3(a):

an invention which is frivolous or which claims anything obviously contrary to well established natural laws;

Objective:

- prevents the grant of patents to absurd or frivolous inventions and ensures that <u>only</u> <u>genuine inventions</u> are granted patents.
- to encourage to invent only *scientifically sound solutions to real-world problems*.



Sub-Section wise analysis of Exclusions under Section 3 of the Act

• Section 3(a):

Example: A <u>Power Delivering Wheel</u>, which is a <u>Perpetual Motion Machine</u>, works on gravitational force. Free falls of a group of weights from one end to the other end of a square tube operate the machine. <u>This machine is never</u> <u>stopped</u> except by manual means. This is generally a stationary engine of unlimited size, capable of continuous power output from gravitational force, which is universally available in any planet.





Reason for exclusion: The claim for a "Power Delivering Wheel" is not patentable because it describes a perpetual motion machine, which violates the laws of physics, specifically the <u>law of conservation of</u> <u>energy</u> and the second law of thermodynamics. Such <u>machines</u> <u>cannot generate continuous power without energy input</u>, making them unfeasible and non-patentable under patent laws.



 an invention the primary or intended use or commercial exploitation of which could be contrary to public order or morality or which causes serious prejudice to human, animal or plant life or health or to the environment;



Objective:

- upholds ethical standards ; no patents to inventions contrary to morality.
- **encouraging inventors to assess** the ethical and societal impact of commercialization of their inventions.
- serious risk to human, animal, or plant life or health
- promotes sustainable development and encourages environmentally friendly technologies

Patent system is used for the benefit of society.



Example:-

An instrument/device/apparatus comprising: a compact body structure designed for concealment, shaped to fit within a user's hand or clothing; a set of articulated or flexible fingers or claws, integrated into the body structure, capable of manipulating and extracting items from a pocket or similar enclosed space; a mechanical or electronic mechanism enabling the movement of said fingers or claws with precision, controlled by the user through a discrete input mechanism; a power source integrated within the body structure to enable operation of the movement mechanism; a sensory or feedback system to detect and assess the presence of items within a pocket, providing the user with real-time information regarding the location and type of object; a non-destructive means of retrieving items from a pocket or container without alerting the individual from whom the items are being taken.





Reason for Not Being Patentable:

An instrument/device/apparatus for picking pockets will be **contrary to morality**.

Example 2:

An instrument for counterfeiting currency notes, comprising a substrate material for mimicking the texture of a currency note, a printing mechanism for replicating the design and security features, and a colorant application system for applying ink to replicate the appearance of an authentic currency note.

An instrument for counterfeiting of currency notes will be contrary to public order..



Example 3: A genetically modified organism (GMO) designed to produce a synthetic pesticide that is toxic to all insect species, including <u>beneficial pollinators</u> such as bees, for use in agricultural environments.

<u>Reason for exclusion</u>: This invention could pose harm to the environment and lead to negative consequences for beneficial insect populations, making it ineligible for patent protection under Section 3(b).

Smoking devices like e-cigarette



- the mere discovery of a scientific principle or the formulation of an abstract theory or discovery of any living thing or non-living substance occurring in nature
- **Objective:**
- encourages innovations involving technical ingenuity or an inventive step ;
- not just simple identification/discovery
- Laws of nature /scientific principles are **not monopolized**
- Open access to fundamental scientific knowledge and natural resources for further research.

Striking a Balance: Innovation vs. Public Access



Discovery of a Living Thing:

- A method for isolating a previously undiscovered species of bacteria from the soil.
- A new species of plant with medicinal properties discovered in the Amazon rainforest.

Discovery of a Non-living Substance:

> The discovery of a new, naturally occurring compound in seawater.

Discovery of some new frequency spectrum OR some new property of EM waves



Scientific Principle Discovery:

A method for converting light into electricity based on the photoelectric effect.

Discovery of some new frequency spectrum OR some new property of EM waves



 the mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or new use for a known substance or of the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant.

Explanation.—For the purposes of this clause, salts, esters, ethers, polymorphs, metabolites, pure form, particle size, isomers, mixtures of isomers, complexes, combinations and other derivatives of known substance <u>shall be considered to be the same substance</u>, unless they differ significantly in properties with regard to <u>efficacy</u>;



Objective:

- No patent to **minor** modifications of existing drugs **devoid** of any significant difference in **efficacy** ;
- promotes genuine innovations ; not incremental inventions
- curbs evergreening
- **Evergreening** is a business strategy that involves extending the life of a patent to maintain revenue.
- Strike a balance





<u>Example</u>: A composition comprising Lactobacillus plantarum 2830 (ECGC 131 10402), or mutant strain or strains thereof, for use in the t<u>reatment or</u> <u>prevention of hypertension</u>.

Reason for exclusion: The subject-matter is not patentable under Section 3 (d) of the Act. The composition comprising lactobacillus plantarum 2830 (ECGC13110402) and excipient or <u>carrier compound for treatment of heart</u> <u>disease, diabetes or obesity is known in known in prior art</u>. The presently claimed subject matter is considered as a mere discovery of any <u>new</u> <u>property or new use for a known substance</u>.

Second Medical use of a drug not patentable.



 a substance obtained by a <u>mere admixture</u> resulting only in the <u>aggregation of the properties</u> of the components thereof or a process for producing such substance

 <u>Objective</u>: No patents to mixtures where the combined effect is merely the sum of the individual components; maintain the quality and integrity of the patent system; promoting genuine innovation and discourages evergreening.



Example: A skin-care scrub composition comprising, coffee in a concentration ranging from 5% to 35% weight by weight (w/w); and green gram in a concentration ranging from 15 % to 65% w/w.

Reason for exclusion:

Both coffee and green gram are known individually as skin care scrubs in prior art. The claimed composition fails to provide any data demonstrating the achievement of synergistic effect by the combination of coffee and green gram.





 the mere arrangement or re-arrangement or duplication of known devices each functioning independently of one another in a known way

<u>Objective</u>:

- No patent for merely combining known devices, wherein the devices work independently of each other;
- Discourage **trivial** inventions ;
- maintain the quality of the patent system



• Example: A torch with a built-in radio, where both functions operate independently, would not be considered an invention.

If the torch and radio are integrated in a way that *they interact to create a new function,* such as the torch automatically switching off to conserve battery when the radio is in use, it could become patent-eligible.





Example 2:

A smart ceiling fan with an integrated air purifier that adjusts fan speed and air filtration based on real-time air quality detection.

Description:

This invention combines a ceiling fan and an air purifier. The fan speed and the purifier's filtration level automatically adjust based on the **real-time air quality data** collected by built-in sensors. When air quality worsens, the fan speed increases, and the air purifier activates at a higher filtration rate to improve indoor air quality more efficiently.





Reason for Patentability:

- The invention combines two devices (fan and air purifier), but they work together synergistically rather than independently.
- The combination introduces novel functionality and solves a real-world problem (improving air quality and comfort at the same time). Since, it integrates air quality detection, automatic adjustments, and smart technology in a way that hadn't been done before.



• a method of agriculture or horticulture

Objective:

- ➤ 44% labor Force depends on Agriculture for livelihood.
- farmers and other communities have access to essential agricultural techniques and practices without the fear of patent infringement
- Supports food security and sustainable agriculture in developing countries.



Example: A **method of saving water and controlling weeds**, comprising: removing water hyacinth from water resources after the completion of its life cycle in the month of March; cutting the collected water hyacinth into small pieces; and spreading the small pieces all over the soil of a cultivation area.

<u>**Reason for exclusion</u>**: The described method involves a natural agricultural practice—removing and using water hyacinth for soil enrichment—which is part of traditional agricultural knowledge. Since the method pertains to agricultural activities, it is excluded from patent protection under Section 3(h).</u>


Example 2:-

A farmer's **method of planting seeds at specific intervals** to ensure optimal growth of crops. The **method involves preparing the soil**, **planting seeds** in **rows**, and **spacing them at a specified distance** to allow for maximum sunlight and water intake.

Example 3:-

A method of pruning fruit trees by cutting back specific branches to promote better fruit yield. The technique includes trimming dead branches, thinning crowded branches, and cutting branches to control the tree's shape.



 any process for the medicinal, surgical, curative, prophylactic diagnostic, therapeutic or other treatment of human beings or any process for a similar treatment of animals to render them free of disease or to increase their economic value or that of their products.

<u>Objective</u>:

- basis lies in person's constitutional right to life (Art. 21)
- > to respect human rights and ensure fair and proper treatment
- healthcare providers are free to choose the best treatment



Example 1: A method for treating rheumatoid arthritis, administering a composition comprising an anti-inflammatory agent to the patient.

<u>Reason for exclusion</u>: The method claims a method of treatment for a disease and thus, is not patentable u/s 3(i) of the Act.

A method of surgery/organ transplant/tissue repair etc



Example 2:

A handheld medical instrument for measuring body temperature, comprising: a temperature sensor configured to detect infrared radiation emitted from the skin; a display unit to show the detected temperature; a power button to activate the instrument for quick and easy temperature measurement.





- plants and animals in whole or any part thereof other than micro organisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals
 Objective:
- > prevents monopolies on essential <u>biological resources</u> that are **vital to agriculture, ecology, and food security**
- ➤ uphold <u>ethical standards</u>
- \succ plant and animal varieties are available to the <u>farmers</u>, <u>breeders</u> and <u>researchers</u> for livelihood and further development

balance the need to incentivize innovation in biotechnology with the need to protect biodiversity



Example 1: A biofortified wheat variety **DBW 187** with wider adaptability; Average yield is 75.5 q/ha under high fertility conditions;Rich in iron (43.1 ppm) in comparison to 28.0-32.0 ppm in other varieties .

Reason for exclusion:

Example claimed a wheat variety .

Plants including seeds, varieties are not patented.

Example 2:

A genetically modified cow that produces milk with an increased concentration of omega-3 fatty acids due to the insertion of a specific gene from a fish species.



• a mathematical or business method or a computer programme *per se* or algorithms

Objective:

- > aligns with the global trend of excluding abstract ideas
- > patents only for inventions that have a practical application and contribute to technological progress.
- to shield our growing software industry from looming fear of infringement
- Encourage inventors in software field to produce technical effect/technical contribution



Why are Mathematical Methods excluded from Patentability?

Absence of Technical Effect:

Mathematical methods alone do not contribute to technological advancement or provide a **technical solution** to a problem.

Abstract Nature:

Mathematical methods are often seen as abstract ideas or algorithms, which are not eligible for patent protection.

Public Domain:

Mathematical ideas, theories, and algorithms are considered part of the public domain and should be freely available for innovation and further development.



<u>Example 1</u>: "super-sizing" deals on take-away food, OR discounts to customers through "loyalty" schemes, may have been innovative ways to increase profit margins, but they lack "technical character" and so would not have been patentable.

Example 2: A new mathematical formula for calculating the trajectory of a rocket would not be patentable in isolation, but when incorporated into the guidance system of a rocket to launch satellites, that guidance system might be patentable.

<u>Example 3:</u> Software is just lines of code, like lines of poetry. Devoid of context software is not useful and so not patentable. However, software when running on a device creates all sorts of useful technical effects, for example *routing phone calls, operating a robot arm or compressing data.*



Example :

A method for calculating the square root of a number, comprising: using the Newton-Raphson method to iteratively calculate the square root of a given number.



Reason for Not Being Patentable:

- This claim describes a known mathematical algorithm (Newton-Raphson method) for finding the square root of a number.
- While the method involves an iterative process, it does not address any technical problem or provide a technical effect in the context of a technical system.



Example:

A method for determining the price of a product, comprising the steps of: analyzing current market trends, setting the price based on historical data, adjusting the price based on competitor prices.



Reason for Not Being Patentable:

- This is a typical business method for pricing, based <u>solely on</u> <u>economic factors and data analysis without any technical</u> <u>component.</u>
- The claim describes an abstract idea of setting prices based on market data, and therefore does not involve a technical solution or contribute to technological progress.
- The mere use of computers to perform economic analyses is not enough for patentability.



Example :

A method of processing transactions on an online shopping platform, comprising the steps of: receiving an order from a customer, processing payment information, completing the transaction by generating a confirmation email for the customer.



Reason for Not Being Patentable:

- This claim describes a business process for <u>handling online</u> orders, which is a standard practice in e-commerce.
- The method does not involve any technical features or solve a technical problem.
- The claim is considered a business method and does not provide a technical contribution to the underlying technology.



Why are computer programme per se excluded from Patentability?

Encourages innovation in software and information technology by focusing on inventions that provide a technical effect or technical contribution, rather than abstract ideas.

What is Computer?

The term "computer" is defined in The Information Technology Act, 2000 (No. 21 of 2000) as "any electronic, magnetic, optical or other high-speed data processing device or system which performs logical, arithmetic, and memory functions by manipulations of electronic, magnetic or optical impulses, and includes all input, output, processing, storage, computer software, or communication facilities which are connected or related to the computer in a computer system or computer network".



The term computer programme has been defined in the Copyright Act 1957 under Section 2(ffc) as " computer programme" means a set of instructions expressed in words, codes, schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or achieve a particular result".



The term "per se" is not defined in Indian statutes including the Patents Act, 1970 and hence, for interpretation of this term, the general dictionary meaning is being used.

The general dictionary meaning of "per se" is "by itself" or "in itself" or "as such" or "intrinsically" - to show that you are referring to something on its own, rather than in connection with other things.



Examples:-

- A simple computer program that performs a basic algorithm (e.g., sorting data or calculating a value). By itself, this would be a "computer programme per se" and would not be patentable because it doesn't involve any technical innovation or solution.
- However, if same computer program is used in a medical device to analyze patient data and assist in diagnosing a disease, then it becomes part of a larger, patentable invention. In this case, the software is no longer just a computer program "per se", but is integrated into a new system that provides a technical solution (the diagnosis system), and hence could be eligible for patent protection.



Important case law for assessing computer program per se:-

- In the matter of "Ferid Allani vs Union Of India & Ors on 12 December, 2019", the Hon'ble Delhi High Court concluded that "... if the invention demonstrates a "technical effect" or a "technical contribution" it is patentable even though it may be based on a computer program".
- ➤ In the matter of "MICROSOFT TECHNOLOGY LICENSING, LLC vs THE ASSISTANT CONTROLLER OF PATENTS AND DESIGNS And ... on 15 May, 2023", it was concluded by the Hon'ble Delhi High Court that "focus should not be solely on the implementation of the invention using computer-executable instructions and algorithms on a general purpose computing device, rather the focus should be on the technical effects of the invention and contributions provided by the invention, the technical advancements and practical application in solving real-world problems must be considered".
- In the matter of "Blackberry Limited vs Assistant Controller Of Patents And ... on 30 August, 2024" :- the Hon'ble high court concluded that "In several decisions, including Ferid Allani Vs Union of India & Ors., 2019 SCC OnLine Del, and Raytheon Company v. Controller General of Patents and Designs, 2023:DHC:6673, this Court has clarified that Computer Related Inventions (CRIs) cannot be tested on the fulcrum of requirement of inventive hardware, as the same is a higher standard which lacks any basis in law".



Algorithm

The term "algorithm" is not defined in Indian statutes and hence, for interpretation of this term, the general dictionary meaning is being used.

The Oxford Advanced Learners Dictionary defines "algorithm" as "*a set of rules that must be followed when solving a particular problem* ".



Why are algorithms excluded from Patentability?

- Abstract nature:- Algorithms are considered abstract ideas. The patent system is intended to protect inventions that have practical applications and are novel, inventive, and useful. Algorithms, being abstract and not tied to a specific technical application or implementation, do not meet the criteria for patentability.
- Lack of Technical Character:- A key requirement for patentability is that the invention must have a technical character or provide a technical solution to a problem. Algorithms, by themselves, often do not fulfill this requirement unless they are part of a broader system or process that provides a tangible or technical benefit. In the absence of such a technical application, algorithms are seen as mere intellectual concepts or mathematical formulas, rather than inventions with practical, real-world utility.



In the matter of "Telefonktiebolaget Lm Ericsson(Publ) vs Lava International Ltd on 10 June, 2016" the Hon'ble high court concluded that the bar of Section 3(k) applies to algorithms which are theoretical in nature and/or abstract formulae. This bar of Section 3(k) does not apply when in a patent involving modern day technology, algorithms are employed in order to perform certain calculations or selections which are thereafter utilized by various hardware components or elements to produce/improve a technology and create a practical effect or result in a physical realization".



• a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions

Objective:

- > Only **Technological innovations** to get Patent
- > literary, artistic, and creative works are protected under the **copyright law**.
- maintaining distinct legal frameworks for protecting <u>different forms</u> of intellectual property



Example: A musical composition comprising a unique arrangement of notes to produce soothing music.

<u>Reason for exclusion</u>: The claim falls under the **musical/artistic** work and does not pertain to patentable subject matter as patents are meant for technological inventions. Musical/artistic works are protected under the Copyrights Act. Hence, the claimed subject matter is not patentable under Section 3(I) of the Act.



• A mere scheme or rule or method of performing mental act or method of playing game

Objective:

- only for inventions that have a practical application and contribute to technological advancement
- prevents the monopolization of abstract concepts that should remain freely available to the public.



Example:

A method for organizing daily tasks, comprising the steps of: categorizing tasks into high, medium, and low priority based on a predefined set of rules; assigning a time slot for each task according to priority; executing the tasks in order of their assigned priority.

Reason for exclusion:

This claim describes a simple organizational scheme for prioritizing tasks, which doesn't involve any technical or physical innovation. It's a method of planning or organizing, not a technological invention.



A method for determining a financial investment strategy, comprising the steps of: analyzing financial data according to a rule-based set of criteria; allocating funds to various investment categories based on these criteria; rebalancing the portfolio periodically as per the predetermined rule.



Reason for Not Being Patentable:

The claim is based on a set of rules for **financial decisionmaking**. There's **no technical** or physical process involved, just the application of rules for making decisions.



Example 3:

A method for classifying data in a database, comprising: assigning a category to each data entry based on a predetermined classification rule; sorting the data entries into corresponding categories.



Reason for Not Being Patentable:

This claim describes a simple scheme for classifying data according to predefined rules, which lacks any technical or innovative aspect that would make it patentable.



• A presentation of information

Objective:

> No patents for **trivial** subject matter

> only for **genuine** technical inventions



Example 1:

A method of displaying text on a digital screen by organizing the text in paragraphs, with each paragraph being aligned to the left and spaced uniformly.





This claim is a **basic method of presenting information** (text) on a screen in a specific layout. It does not involve any **technical innovation** or solve a **technical problem**. The method is essentially an abstract concept for arranging text, which falls under the exclusion of abstract ideas and presentation of information in Section 3(m) of the **Patents Act**.



- Topography of integrated circuits
- <u>Objective</u>:
- protected under the <u>Semiconductor</u> <u>Integrated Circuits Layout-Design Act</u>, <u>2000</u> (in accordance with Section 6 of TRIPS)

The topography of an integrated circuit (IC) is the *three-dimensional arrangement of elements* that make up the IC.

IC Layout





• An invention which in effect, is **traditional knowledge** or which is an aggregation or duplication of known properties of traditionally known component or components.

Objective:

- recognizes the value and importance of traditional knowledge systems
- prevent <u>biopiracy</u> (the unauthorized use and exploitation of biological resources and associated traditional knowledge).
- Protecting interest of indigenous communities


Section 3(p)

Example: A herbal preparation for instant relief from hyperacidity by regulating acidalkaline balance in the body, the preparation comprising: Muktashukti bhasma 50% by weight sajjikhar 50% by weight.

Reason for exclusion: Both the components Muktashukti bhasma and sajjikhar were known individually in traditional knowledge (determined through search conducted on <u>Traditional Knowledge Digital Library (TKDL)</u>) for the treatment of acidity. Hence, the claimed subject matter is not patentable under Section 3(p) of the Act.

<u>Example:</u> US patent No. 5,401,504 Use of turmeric in wound healing agent



Section 4

 No patent shall be granted in respect of an invention relating to atomic energy falling within sub-section (1) of section 20 of the <u>Atomic Energy</u> <u>Act, 1962 (33 of 1962)</u>.

Objective:

- All inventions related to Atomic energy belongs to central Govt. as per section 20 of the <u>Atomic Energy Act, 1962</u>.
- Critical and dual use technology
- > National security and public safety
- > To retain Govt. control and regulations



Specific Areas of Exclusion:

> Production, control, and use of atomic energy.

- > Disposal and treatment of radioactive substances.
- > Enrichment, canning, or fabrication of prescribed substances.



Section 4

Example

A Method of utilizing potential energy of atoms and various forms of radiation (electrons, photons, positrons, gamma beta and alpha radiations, etc.) in a controlled power generating system; effective mixtures of chemical elements adapted for use in the method; the preparation of charges of ingredients for use in virtually gas-tight power generating devices; the activation and control of such charges and devices; structural requirements of power generating devices utilizing the methods and compositions.



Section 4

Section 20 (6) of Atomic energy act 1962 states :

The Controller of Patents and Designs shall have the <u>power to</u> <u>refer any application</u> to the Central Government for direction as to whether the invention is one relating to atomic energy and the direction given by the Central Government shall be final.





Technical Impact

Encouragement of Open Research

Discoveries, Scientific Principles, Traditional knowledge Foundational knowledge I Open to research I Technological progress

Promotes true innovation

Focus on creating novel, inventive and industrially applicable technologies No Patent for trivial improvements sections 3(a), 3(d),3(f),3(m)





<u>Legal Impact</u>

- Compliance with International Treaties (TRIPS)
- Compliance with international treaties ensures uniformity in patent laws Strengthen India's global legal standing
- Prevention of Monopoly in certain scenarios

Scientific laws/principles, Traditional Knowledge, Method of treatment, Method of Agri/Horticulture , Atomic energy/public safety

Impact IP Strategies

Innovator adapt their strategy to protect his/her IP through alternative mechanism available like copyright ,trade secret ,SICLR



Impact of exclusions

Economic Impact

Reduction in Costs

Open access to non-patentable technologies

Encourages Accessibility

Continued access to these vital resources for farmers, indigenous communities, researchers and industries? safeguards <u>livelihoods and promotes equitable economic growth</u>

Protects Indigenous Economies

Prevents biopiracy I indigenous communities retain control over their **cultural and intellectual heritage** I fair compensation and profit-sharing arrangements

Indirect Economic Benefits

Not-patentable pharmaceutical products <a>[2] Exporting generic medicines



Impact of exclusions

Business Impact

Increased Competition & Innovation

Free use and building upon existing ideas I rapid innovation and potentially leads to more affordable products

Foundation for Further Advancements

Crucial building blocks for future, potentially patentable, innovations



Thanks !

