

Objectives, Types, Protection Mechanisms and Applications of Intellectual Property Rights (IPR)

*Akanksha Singh, Harsiddhi Limbani and Busra Ahmed

Junagadh Agricultural University, Junagadh, Gujarat

*Corresponding Author's email: akankshasingh@jau.in

The rights that are granted to creators, inventors and innovators to protect their intellectual creations and inventions for a specified period of time are Intellectual Property Rights (IPRs). Its chief objective is to encourage innovation, creativity and development of intellectual assets by providing exclusive rights over use and commercialization. The Paris Convention for the Protection of Industrial Property (1883) and the Berne Convention for the Protection of Literary and Artistic Works (1886) gave recognition to the significance at the international level. The World Intellectual Property Organization (WIPO) is in charge of overseeing these historic accords, which laid the groundwork for the international intellectual property system.

Objectives of Intellectual Property Rights

- **Intellectual Creation Protection:** Inventions, creative works, and innovations emerging from human cognition are legally protected by intellectual property rights (IPR), which acknowledge them as valuable assets akin to physical property.
- **Innovation and Research Promotion:** IPR promotes investment in R&D by giving innovators and inventors exclusive rights, which in turn promotes ongoing technological innovation and advancement.
- **Promotion of Innovation and Economic Development:** Good intellectual property protection that encourages innovation, makes doing business smoothly, and advances economic growth by making it possible for innovations to be commercialized.
- **Territorial Rights Protection:** IPR protection must often be sought and enforced independently in each area where protection is required since intellectual property laws differ between nations and jurisdictions.
- **Protecting Intangible Resources:** IPR includes a variety of legal rights that safeguard intangible assets, such as designs, trademarks, literary and creative works, inventions, and other types of intellectual creations.
- **Enhancing IPR Management:** Enhancing and updating administrative frameworks to guarantee effective, transparent, and user-focused services is a key goal of IPR systems.
- **Building Awareness and Capacity:** IPR seeks to improve human resources, education, training, research, institutional infrastructure, and skill development in relation to the management and protection of intellectual property.
- **Promoting Technology Commercialization and Transfer:** IPR promotes the commercialization, licensing, and distribution of breakthrough technology, which supports societal and industrial advancement.



Types of Intellectual Property

Industrial property

Patent

One of the most significant types of intellectual property rights (IPR) is a **patent**, which provides legal protection for novel ideas, involve an inventive step (non-obviousness), and have potential for industrial use. Products and procedures that provide a novel technological solution or a creative way to solve an existing issue may be eligible for patents. An inventor who obtains a patent is granted an exclusive right that enables them to stop others from producing, utilizing, selling, or profiting from their creation without permission. A patent is essentially a legal right granted by the government that acknowledges and protects an invention for a predetermined period of time. Initially, patent protection under the **Indian Patents Act** was provided for 14 years from the date of filing, with special provisions for patents about food and pharmaceutical processes. Patents in India are currently often awarded for a term of **20 years** from the filing date, subject to the payment of stipulated fees, following modifications to conform to international norms. The usage, production, licensing, and marketing of the patented innovation are all under the exclusive control of the patent holder throughout this time.

Types of patents

Utility patent

A **utility patent** is a kind of patent that is awarded for both major advancements in already-existing technology and the invention or discovery of a new and useful product, process, machine, manufacturing, or composition of matter. It is the most often granted type of patent protection and safeguards an invention's functional characteristics. Examples include computer software, medical devices, industrial equipment, manufacturing processes, chemical compositions, and various technological innovations. In India, most patent applications fall under this category, providing protection for novel and industrially applicable inventions. A utility patent is normally enforceable for **20 years** after the date the patent application was filed, provided that the required yearly renewal costs are paid to keep the patent valid.

Design patent

An article's decorative, aesthetic, and non-functional features—such as its shape, configuration, pattern, surface decoration, or overall visual appearance are protected by a design patent. The design must be unique, inventive, and visually striking to be eligible for protection. Design patents solely protect an invention's external look, in contrast to utility patents, which protect its functional aspects. Classic examples that have been acknowledged for their distinguishing visual qualities are the Statue of Liberty's ornate design features and the Coca-Cola shape Bottle's recognizable shape. Therefore, a design patent offers legal defence against unauthorized duplication or copying of a product's unique appearance.

Plant patent

One type of intellectual property protection for a new, unique, and innovative plant variety is a **plant patent**. It gives the patent holder the only authority to stop unauthorized reproduction, propagation, sale, use, or commercial exploitation of the protected plant. Protecting the distinctive genetic and phenotypic traits of recently created plant varieties is the main goal of a plant patent, which promotes innovation and funding for agricultural research and plant breeding. A plant patent essentially prevents unlawful use or duplication of a novel plant variety and its unique characteristics.

Trademark

A **trademark** is a distinguishing mark that is used to identify and set one person, business, or organization's products or services apart from those of another. Words, letters, numbers, phrases, symbols, logos, designs, colours, forms, sounds, packaging, textures, or any combination of these components may make up a trademark. It helps customers make well-informed purchasing decisions by providing information about a product or service's reputation, quality, and place of origin. By forbidding the unapproved use of identical marks,

trademarks also safeguard companies' reputation and brand identification. In India, trademark registration is initially granted for **ten years**, but it can be extended indefinitely for additional ten-year periods as long as the required renewal costs are paid. The **Apple** name and logo, the **Tata** brand, the **Mercedes-Benz** three-pointed star emblem, and the **Nike** "Swoosh" sign are well-known instances of trademarks.



Industrial design

The ornamental, aesthetic, or visual elements of a product that come from artistic and creative endeavours are referred to as **industrial designs**. These characteristics, which make an item aesthetically pleasing and differentiable from other products, may include the article's shape, configuration, pattern, adornment, or general appearance. The owner of a legally registered industrial design is granted design rights, which offer protection for innovative and unique concepts. By protecting the visual elements of products, industrial designs are a significant subset of intellectual property rights (IPR) and promote innovation. The **Designs Act, 2000**, which was passed to bring India's design protection system into line with international norms and technical developments, protects industrial designs. A registered industrial design owner is the only person with the authority to stop others from producing, importing, marketing, or making commercial use of goods that use a design that is exactly the same as or significantly similar to the protected design. The TRIPS Agreement, which sets basic requirements for the defence and enforcement of industrial design rights among member nations, recognizes industrial design protection on a global scale.

Trade secret

The form of intellectual property which includes confidential business information providing a competitive advantage to its owner is **trade secret**. It may include processes, formulas, methods, techniques, designs, patterns, business strategies, customer lists, or other proprietary information that gives economic benefits as it not being generally known as easily accessible to others. The information must be valuable, confidential, and subject to reasonable measures taken by the owner to maintain its secrecy and to qualify as trade secret. Trade secrets are protected as long as information remains confidential and provides continues commercial advantages. Trade secrets can be licensed, transferred, or sold as valuable intellectual assets. Trade secret protection enables businesses to safeguard unique knowledge and innovations that contribute to their market position and operational success. Well-known examples are coco-cola recipe, domino's pizza etc.



Geographical Indications (GI)

A Geographical Indication (GI) is a sign that is used to identify goods that originate from a specific geographical location and possess qualities, a reputation, or characteristics which are essentially linked to that place of origin. GIs are commonly associated with agricultural products, foodstuffs, wines, marbles, handicrafts, and industrial goods. Notable examples include Basmati Rice and Darjeeling Tea.

Benefits of GI Registration

- Provides legal protection to registered geographical indications, strengthening their recognition and enhancing export opportunities, which provides economic value to the country.
- Prevents unauthorized use or misuse of registered GI products by individuals or entities not entitled to use them.
- Supports the economic development and well-being of producers and communities involved in the production of goods from a specific geographical area.

- Helps preserve traditional knowledge, cultural heritage, and unique production practices associated with the regio

Copyright

The rights that grant legal protection to authors, artists, musicians, software developers, and other literary, artistic, musical, dramatic, and intellectual works. Copyright provides creators with exclusive rights to copy, publish, distribute, perform, display, adapt or commercially exploit their work while preventing its unauthorized uses.

A vast array of creative works is protected by copyright, including literary works like books, plays, poems, encyclopedias, newspapers, and computer programs; databases; cinematographic films; musical compositions; choreographic performances; artistic works like paintings, drawings, photographs, and sculptures; architectural designs; advertisements; maps; and technical drawings. Instead, then protecting the ideas themselves, copyright protects how they are expressed.

The sole authority to permit or forbid the public reproduction, publication, distribution, adaptation, and transmission of the protected work belongs to the copyright owner. In the majority of nations, copyright protection lasts for the author's lifetime plus an extra amount of time, usually between 50 and 100 years after the author's passing, depending on national laws. Literary, theatrical, musical, and creative works in India are typically protected by copyright for 60 years following the author's passing under the Copyright Act, 1957.



Applications of Intellectual Property Rights

1. **Protection of Inventions and Innovations:** IPR prevents unauthorized use, replication, or commercialization of innovative innovations, technologies, goods, and procedures.
2. **Promoting of Research and Development:** By accessing exclusive rights to inventors and creators, IPR encourages investment in scientific research, technological advancement, and innovation.
3. **Commercialization of Intellectual Assets:** Intellectual property can be licensed, sold, franchised, or transferred, enabling creators and organizations to generate revenue from their innovations.
4. **Branding Protection and Market Recognition:** Trademarks provides brand names, logos, and symbols, helping businesses establish market identity and consumer trust.
5. **Protecting Creative Works:** Copyright protects literary, artistic, musical, architectural, and software creations, ensuring that creators receive recognition and economic benefits.
6. **Transfer of Technology:** IPR facilitates the transfer of technology between research institutions, universities, and industries through licensing agreements and collaborations.
7. **Encouragement of Entrepreneurship:** Strong IPR protection supports startups and entrepreneurs by protecting their innovations and providing a competitive advantage in the marketplace.
8. **Protection of Agricultural and Plant Variety:** Plant breeders' rights and plant patents encourage the development of improved crop varieties with enhanced yield, quality, and resistance to pests and diseases.
9. **Industrial development and Economic Growth:** IPR increase industrial competitiveness, attracts investment, creates employment opportunities, and contributes to national economic development.
10. **Protection of consumer:** Trademarks and geographical indications help consumers identify authentic products and ensure product quality and origin.

11. **Trade Secrets Preservation:** PR protects confidential business information, proprietary technologies, manufacturing processes, and commercial strategies that provide competitive advantages.
12. **Global Trade and International Competitiveness:** Intellectual property protection facilitates international trade, encourages foreign investment, and supports participation in the global knowledge-based economy.

Applications of IPR in Agriculture

- Protection of new crop varieties through Plant Variety Protection (PVP).
- Patent protection for agricultural biotechnology inventions.
- Trademark protection for agricultural products and brands.
- Protection of geographical indications (GI) for region-specific agricultural products.
- Safeguarding innovations in seed technology, biofertilizers, biopesticides, and farm machinery.
- Facilitating technology transfer from research institutions to farmers and agribusiness industries.