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BOT-353

INTELLECTUAL PROPERTY RIGHTS

Theory Guidelines by KHYATI

Not For Commercial Use

INTELLECTUAL PROPERTY



COPYRIGHT



PATENT



COPYRIGHT LAW



TRADE MARK



WIPO
WORLD
INTELLECTUAL PROPERTY
ORGANIZATION



**INTELLECTUAL
PROPERTY INDIA**
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

Patents Copyright

Trademark TRIPs

WIPO UPOV WTO

Trade secrets PPV GATT

Industrial Designs



KHYATI

॥ ज्ञानं प्रकाशयति तत्परम् ॥

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॥ ज्ञानं प्रकाशयति तत्परम् ॥

PREFACE

Dear all students, Respected Teachers & Friends, As we know the tremendous progress of agriculture and allied fields there are new inventions take place every day. For securing the rights of that invention the intellectual property rights & its legislation are boon to mankind. Now the piracy of work can be prevented in legal ways. By knowing the importance of this IPR study in agriculture sector ICAR includes the course Bot-353 Intellectual Property Rights in our 5th semester syllabus.

The syllabus includes patent ,copyright, trademark, geographical indications, Trade secrets, Integrated circuits, Industrial designs etc. forms of IPR along with their legislation in India. It also includes Plant variety protection, Registration of new plant variety, Biological diversity act, and many treaties related to IPR.

As the course is newly introduced, many students does not clear about the content of the course. That's why we students prepare this notes by referring internet and print media & other materials. All the sources from which the content referred are enlisted along with their authors. We work as a team KHYATI(Knowledge Helpline for Youths ,Agricultural students, Trainees & Individuals)which is non commercial group of students. We do not make this notes for any commercial purpose but for study purpose for students. As we collected this note we are not claiming any right of it but anyone should not use this for commercial purpose.

As we doesn't know much deep than teachers, we will suggest all readers and students that they should go through the guidance of their course teacher. We try our best to compile this notes according to each and every content of our prescribed syllabus but as we also students somehow if the mistake happens then we are kindly apologies for it. The students should refer another reference books and teacher's notes to study this course. So, study hard & best luck for your examination.

BOT-353 INTELLECTUAL PROPERTY RIGHTS

Notes By KHYATI

Lec. No. 1 Introduction and meaning of Intellectual property, Brief introduction to GATT, WTO, TRIPs and WIPO.

• What is Intellectual Property?

- Intellectual property (IP) is a term referring to creation of the intellect (the term used in studies of the human mind) for which a monopoly is assigned to designated owners by law.
- Intellectual property (IP) refers to the creations of the human mind like inventions, literary and artistic works, and symbols, names, images and designs used in commerce.-**WIPO**

Intellectual property is divided into two categories: Industrial property, which includes inventions (patents), trademarks, industrial designs, and geographic indications of source; and Copyright, which includes literary and artistic works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs.

In simple words, The Intellectual Property Deals with the Creation of our mind like poems, Designs, Photographs, Songs, Trade secrets, Methods of something, Inventions etc.

The concept of intellectual property is not new as Renaissance northern Italy is thought to be the cradle of the Intellectual Property system. A Venetian Law of 1474 made the first systematic attempt to protect inventions by a form of patent, which granted an exclusive right to an individual for the first time. In the same century, the invention of movable type and the printing press by Johannes Gutenberg around 1450, contributed to the origin of the first copyright system in the world.

• What is the Difference between Property & Intellectual Property?

The most noticeable difference between intellectual property and other forms of property, however, is that intellectual property is intangible, that is, it cannot be defined or identified by its own physical parameters. It must be expressed in some discernible way to be protectable. Generally, it encompasses four separate and distinct types of intangible property namely patents, trademarks, copyrights & trade secrets, which collectively are referred to as "intellectual property."

• What are the Intellectual Property Rights?

- Intellectual Property Rights are legal rights governing the use of creations of the human mind. **IMP**
- A right that is had by a person or by a company to have exclusive rights to use its own plans, ideas, or other intangible assets without the worry of competition, at least for a specific period of time. These rights can include copyrights, patents, trademarks, and trade secrets.
- Creators are given the right to prevent others from using their inventions, designs or other creations. These rights are known as intellectual property rights.

• What are the Types of Intellectual Property Rights?

- Patents
- Copyrights
- Trademarks
- Industrial designs
- Protection of Integrated Circuits layout design

- Geographical indications of goods
- Biological diversity
- Plant varieties and farmers rights
- Undisclosed information

A. Intellectual Property /Industrial Property

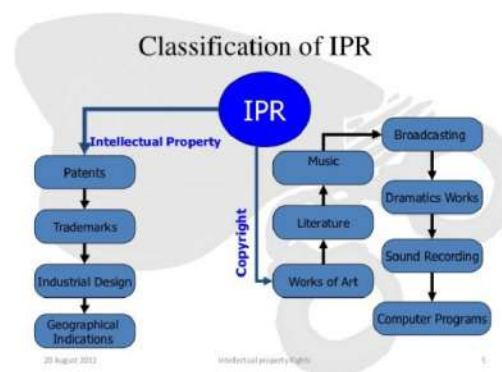
- 1. Inventions
- 2. Trademarks
- 3. Industrial design
- 4. Geographical indications

B. Copyright

- 1. Writings
- 2. Paintings
- 3. Musical works
- 4. Dramatics works
- 5. Audiovisual works
- 6. Sound recordings
- 7. Photographic works
- 8. Broadcast
- 9. Sculpture
- 10. Drawings
- 11. Architectural works etc.

The term intellectual property is usually thought of as comprising four separate legal fields:

- 1. Trademarks
- 2. Copyrights
- 3. Patents
- 4. Trade secrets



• History Highlights Of Intellectual Property.

- ❖ A Venetian Law of 1474 made the first systematic attempt to protect inventions by a form of patent, which granted an exclusive right to an individual for the first time.
- ❖ The invention of movable type and the printing press by Johannes Gutenberg around 1450, contributed to the origin of the first copyright system in the world.
- ❖ Paris Convention for the Protection of Industrial Property in 1883.
- ❖ Berne Convention for the Protection of Literary and Artistic Works in 1886.
- ❖ Establishment of the World Intellectual Property Organization in 1967.
- ❖ General Agreement on Tariffs and Trade (GATT) treaty in 1994.
- ❖ Trade-Related Intellectual Property Systems (TRIPS) Agreement in effect 1 January 1995.
- ❖ In India Patent Act was introduced in the year 1856 which remained in force for over 50 years, which was subsequently modified and amended and was called "The Indian Patents and Designs Act, 1911". After Independence a comprehensive bill on patent rights was enacted in the year 1970 and was called **"The Patents Act, 1970"**. Now it was amendment in 2005.

- ❖ Trade Mark Act, 1999.
- ❖ Copyright (Amendment) Act, 2012.
- ❖ Geographical Indications of Goods (Registration and Protection) Act, 1999.
- ❖ 'Protection of Plant Varieties and Farmers' Rights Act, 2001.
- ❖ Designs Act, 2000
- ❖ Budapest Treaty, 28 April 1977
- ❖ Madrid Protocol, (Agreement) 1996.
- ❖ George Alfred De Penning is supposed to have made the first application for a patent in India in the year 1856.

The Union Cabinet has approved the **National Intellectual Property Rights (IPR) Policy on 12th May, 2016** that shall lay the future roadmap for IPRs in India. The Policy recognizes the abundance of creative and innovative energies that flow in India, and the need to tap into and channelize these energies towards a better and brighter future for all.

• **Advantages of Intellectual Property Rights**

1. Provides exclusive rights to the creators or inventors.
2. Encourages individuals to distribute and share information and data instead of keeping it confidential.
3. Provides legal defense and offers the creators the incentive of their work.
4. Helps in social and financial development.

***GATT: General Agreement on Tariffs and Trade**

- The General Agreement on Tariffs and Trade (GATT) is a legal agreement between many countries, whose overall purpose was to promote international trade by reducing or eliminating trade barriers such as tariffs or quotas.
- Its purpose was the "substantial reduction of tariffs and other trade barriers and the elimination of preferences, on a reciprocal and mutually advantageous basis."
- It was first discussed during the United Nations Conference on Trade and Employment and was the outcome of the failure of negotiating governments to create the International Trade Organization (ITO).
- **GATT was signed by 23 nations in Geneva on 30 October 1947, and took effect on 1 January 1948.**
- It remained in effect until the signature by 123 nations in Marrakesh on 14 April 1994, of the Uruguay Round Agreements, which established the World Trade Organization (WTO) on 1 January 1995.
- The WTO is a successor (New form) to GATT, and the original GATT text (GATT 1947) is still in effect under the WTO framework, subject to the modifications of GATT 1994.

As per the Course we have to study this GATT regarding with IPR which has included in Uruguay Round of GATT:

The Uruguay Round began in 1986. It was the most ambitious round to date, hoping to expand the competence of the GATT to important new areas such as services, capital, intellectual property, textiles, and agriculture. 123 countries took part in the round. The Uruguay Round was also the first set of multilateral trade negotiations in which developing countries had played an active role.

It aims to include the protection of intellectual property.

They also wanted to draft a code to deal with copyright violation and other forms of intellectual property rights.

TRIPS was negotiated during the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) in 1984-1994. [Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)]

***WORLD TRADE ORGANISATION**

The World Trade Organization (WTO) deals with the rules of trade between nations at a global or near-global level.

WTO is an organization that intends to supervise and liberalize international trade. The organization officially commenced on 1 January 1995 under the Marrakech Agreement, replacing the General Agreement on Tariffs and Trade (GATT), which commenced in 1948. WTO is the only global international organization dealing with the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments. The goal is to help producers of goods and services, exporters, and importers conduct their business.

The Headquarter is at Geneva, Switzerland.

Benefits of WTO

- The system helps promote peace
- Disputes are handled constructively
- Rules make life easier for all
- Freer trade cuts the costs of living
- It provides more choice of products and qualities
- Trade raises incomes
- Trade stimulates economic growth
- The basic principles make life more efficient
- Governments are shielded from lobbying
- The system encourages good government

Activities of WTO

- Negotiation to reduce or eradicate hindrances in trade and agreeing on rules that govern the conduct of internal trade. Administering and monitoring the application of WTO trade agreement rules in goods, trade in services, IPR.
- Reviewing the trade related policies of WTO members as well as ensuring transparency in regional and bilateral trade agreement.
- Settling disputes among its members regarding interpretation and application of the trade agreement.
- Educating public about WTO, its mission and its activities.
- Conducting economic research.

***TRIPS**

Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement

With the establishment of the world trade Organization (WTO), the importance and role of the intellectual

property protection has been Crystallized in the Trade-Related Intellectual Property Systems (TRIPS)

Agreement. It was negotiated at the end of the Uruguay Round of the General Agreement on Tariffs and

Trade (GATT) treaty in 1994. The TRIPS Agreement, which came into effect on 1 January 1995, is to date the most comprehensive multilateral agreement on intellectual property.

The TRIPS Agreement encompasses, in principle, all forms of intellectual property and aims at harmonizing and strengthening standards of protection and providing for effective enforcement at both national and international levels. It addresses applicability of general GATT principles as well as the provisions in international agreements on IP (Part I). It establishes standards for availability, scope, use (Part II),

enforcement (Part III), acquisition and maintenance (Part IV) of Intellectual Property Rights. Furthermore, it addresses related dispute prevention and settlement mechanisms (Part V). Formal provisions are addressed in Part VI and VII of the Agreement, which cover transitional, and institutional arrangements, respectively.

***The areas of intellectual property that it covers are:**

- (i) Copyright and related rights (i.e. the rights of performers, producers of sound recordings and broadcasting organisations);
- (ii) Trade marks including service marks;
- (iii) Geographical indications including appellations of origin;
- (iv) Industrial designs;
- (v) Patents including protection of new varieties of plants;
- (vi) The lay-out designs (topographies) of integrated circuits;
- (vii) The undisclosed information including trade secrets and test data.

***Issues Covered under TRIPS Agreement**

The TRIPS agreement broadly focuses on following issues:

- ❖ How basic principles of the trading system and other international intellectual property agreements should be applied.
- ❖ How to give adequate protection to intellectual property rights.
- ❖ How countries should enforce those rights adequately in their own territories.
- ❖ How to settle disputes on intellectual property between members of the WTO.
- ❖ Special transitional agreements during the period when the new system is being introduced.

***Features of the Agreement**

The main three features of the TRIPS Agreement are as follows-

- **Standards:** The TRIPS Agreement sets out the minimum standards of protection to be provided by each Member.
- **Enforcement:** The second main set of provisions deals with domestic procedures and remedies for the enforcement of intellectual property rights. The Agreement lays down certain general principles applicable to all IPR enforcement procedures.
- **Dispute settlement:** The Agreement makes disputes between WTO Members about the respect of the TRIPS obligations subject to the WTO's dispute settlement procedures.

***WIPO : WORLD INTELLECTUAL PROPERTY ORGANIZATION**

WIPO is a specialized agency of the United Nations which is dedicated to ensuring that the rights of creators and owners of intellectual property are protected worldwide. It is responsible for the administration of various multilateral treaties dealing with the legal and administrative aspects of intellectual property. The roots of this organization can be traced back to 1833 with the birth of Paris Convention for the protection of industrial property. It was the first major international treaty formed to help the inventors of one country to obtain protection in other countries for their creation or invention.

Like the Paris Convention, the Berne Convention set up an International Bureau to carry out administrative tasks. In 1893, these two small bureaux united to form an international organization called the United International Bureau (BIRPI) for the Protection of Intellectual Property. The BIRPI indeed was the predecessor of the World Intellectual Property Organization. A decade later, following the entry into force of the Convention Establishing the World Intellectual Property Organization, BIRPI became WIPO and in the year 1974, WIPO became a specialized agency of the United Nations system of organizations.

***WIPO Objectives/Functions:**

Provide services for international application for industrial property rights.
Exchange intellectual property information among member countries.
Provide legal and technical assistance to developing and other countries.
Resolve the private disputes on intellectual property and harmonizes the intellectual property (IP) laws and procedures.

WIPO was established by the convention in 14 July 1967, which entered into force in 1970. WIPO undertakes development cooperation for developing countries through advice, training and furnishing of documents.

The agreement on cooperation between WIPO and WTO was concluded in December 1995. This agreement between WIPO and WTO came into force on 1 January 1996. The agreement provides cooperation in the following areas:

- Technical knowledge
- Notification of and access to national laws and regulation
- Translation of national laws
- Implementation of procedures for the protection of national emblems.
- WIPO has promoted the interaction among different stakeholders at the national level to include, for example- agriculture, health, science and technology, etc.

Lec no. 3 Treaties for IPR protection: Madrid protocol, Berne Convention, Budapest treaty, etc.

***Madrid protocol:**

The Madrid System for the International Registration of Marks is governed by the Madrid Agreement, concluded in 1891, and the Protocol relating to that Agreement, concluded in 1989. The system makes it possible to protect a mark in a large number of countries by obtaining an international registration that has effect in each of the designated Contracting Parties. States and organizations which are party to the Madrid system are collectively referred to as Contracting Parties.

The Madrid System for the International Registration of Marks is governed by two treaties: **Madrid Agreement**, concluded in 1891 and revised at Brussels (1900), Washington (1911), The Hague (1925), London (1934), Nice (1957) and Stockholm (1967), and amended in 1979, **Protocol** relating to that Agreement, concluded in 1989, which aims to make the Madrid system more flexible and more compatible with the domestic legislation of certain countries or intergovernmental organizations that had not been able to accede to the Agreement. The Madrid Agreement and Protocol are open to any State which is party to the Paris Convention for the Protection of Industrial Property. The two treaties are parallel and independent and States may adhere to either of them or to both. In addition, an intergovernmental organization which maintains its own Office for the registration of marks may become party to the Protocol. Instruments of ratification or accession must be deposited with the Director General of WIPO. This helps to apply for international registration for protection. An international registration is effective for 10 years. It may be renewed for further periods of 10 years on payment of the prescribed fees.

Advantages of the Madrid System

- The system of international registration of marks has several advantages for trademark owners.
- Instead of filing many national applications in all countries of interest you can fill only one application.
- Instead using several different languages, you can fill application in one language (either English or French).
- In accordance with different national procedural rules and regulations and paying several different (and often higher) fees, an international registration may be obtained by simply filing one application with the International Bureau (through the Office of the home country), and paying only one set of fees.

***Berne Convention:**

The Berne Convention, adopted in 1886, deals with the protection of works and the rights of their authors. It provides creators such as authors, musicians, poets, painters etc. with the means to control how their works are used, by whom, and on what terms. It is based on three basic principles and contains a series of provisions determining the minimum protection to be granted, as well as special provisions available to developing countries that want to make use of them.

It is based on three basic principles and contains a series of provisions determining the minimum protection to be granted, as well as special provisions available to developing countries that want to make use of them. The three basic principles are the following:

1. Principle of "national treatment": Works originating in one of the contracting States must be given the same protection in each of the other contracting States as the latter grants to the works of its own nationals.

2. Principle of "automatic" protection: Protection must not be conditional upon compliance with any formality () [2].

3. Principle of "independence" of protection: Protection is independent of the existence of protection in the country of origin of the work. If, however, a Contracting State provides for a longer term of protection than the minimum prescribed by the Convention and the work ceases to be protected in the country of origin, protection may be denied once protection in the country of origin ceases.

The minimum standards of protection relate to the works and rights to be protected, and the duration of the protection:

1. As to works, the protection must include every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression.
2. Subject to certain permitted reservations, limitations or exceptions, the following are among the rights which must be recognized as exclusive rights of authorization:
 - the right to translate,
 - the right to make adaptations and arrangements of the work,
 - the right to perform in public dramatic, dramatico-musical and musical works,
 - the right to recite in public literary works,
 - the right to communicate to the public the performance of such works,
 - the right to broadcast (with the possibility of a contracting State to provide for a mere right to equitable remuneration instead of a right of authorization),
 - the right to make reproductions in any manner or form,
 - the right to use the work as a basis for an audiovisual work, and the right to reproduce, distribute, perform in public or communicate to the public that audiovisual work.

The Convention also provides for "moral rights," that is, the right to claim authorship of the work and the right to object to any mutilation or deformation or other modification of, or other derogatory action in relation to, the work which would be prejudicial to the author's honor or reputation.

***Budapest treaty:**

The main feature of the Treaty is that a contracting State which allows or requires the deposit of microorganisms for the purposes of patent procedure must recognize, for such purposes, the deposit of a microorganism with any "international depository authority", irrespective of whether such authority is on or outside the territory of the said State.

Budapest Treaty" was signed in Budapest in 28 April 1977 and later on amended in 26 September 1980. India became a member of this Treaty with effect from December 17, 2001. This is an international convention governing the recognition of deposits in officially approved culture collections for the purpose of patent applications in any country that is a party to this treaty. Because of the difficulties and virtual impossibility of reproducing a microorganism from a description of it in a patent specification, it is essential to deposit a strain in a culture collection centre for testing and examination by others. If such biological material is already known, in such case it is not essential to deposit the same. There are many international depositories in different countries such as MTCC, DSM etc. which are recognized under the Budapest Treaty. The Institute of Microbial Technology (IMTECH), Chandigarh is the first Indian depository set up under the Budapest Treaty. Very recently Microbial Culture Collection Centre (MCC), Pune (which is located in the NCCS, Pune) has been recognized International Depository Authority (IDA) under the Budapest Treaty on

the International Recognition of the Deposit of Micro-organisms for the Purpose of Patent Procedure.

Whatever the treaty calls an “international depository authority” is a scientific institution typically a “culture collection” which is capable of storing microorganisms. Such an institution acquires the status of “international depository authority” through the furnishing, by the Contracting State on the territory of which it is located, of assurances to the Director General of WIPO.

Advantages of Budapest Treaty:

- Simplification and cost reduction of patent procedures.
- Prevention of certain risks in the field of biotechnology.
- Promotion of R&D through access to deposited biological material.
- Promotion of cooperation and exchange between IDAs.

Lec. no. 4-5 Types of Intellectual Property and legislations covering IPR in India:-Patents, Copyrights, Trademark, Industrial design, Geographical indications, Integrated circuits, Trade secrets.

***Patents**

A patent is an exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem. To get a patent, technical information about the invention must be disclosed to the public in a patent application. – WIPO

The protection through patent is granted for a limited period, generally 20 years from the filing date of the application.

A Hard Lesson from History

On February 14, 1876, Alexander Graham Bell applied for a patent on an apparatus that could transmit speech electrically, beating out his rival, Elisha Gray, by just two hours. In actuality, Gray's design actually worked better but timing was all that mattered. When Gray later filed a lawsuit, the courts awarded the patent to Bell, who went down in history as the official inventor of the telephone.

Types of Patents

There are several types of patents recognized under US law, each of which grants a specific type of benefit or protection. They are:

- **Utility patent:** May be granted on any new or improved, useful and non-obvious machine, manufactured article, process or composition of matter
- **Provisional application for patent:** An optional first step towards a utility patent, provisional applications grant an immediate priority filing date and “Patent Pending” status for a full 12 months before an inventor files a full utility patent application
- **Design patent:** May be granted on any new, original and ornamental design for a useful article
- **Plant patent:** May be granted on any new and distinct variety of plant that can be asexually reproduced.

1st Patent In India: On 3 March 1856, a civil engineer and inventor named George Alfred DePenning, of Calcutta, India, filed a petition for grant of exclusive privileges under this Act for his invention, which he called “An Efficient Punkah-Pulling Machine”.

Patentable subject matter / What can be patented?

- A patent cannot protect an idea. Instead, the idea must be embodied in one or more of the following:
- A process or method (such as a new way to manufacture concrete)
- A machine (something with moving parts or circuitry)

- A manufactured article (such as a tool or another object that accomplishes a result with few or no moving parts, such as a pencil)
- A new composition (such as a new pharmaceutical)
- An asexually reproduced and new variety of plant.

We study this briefly in Lecture no. 6 & 7.

Advantages of Patents:

1. A patent gives you the right to stop others from copying, manufacturing, selling or importing your invention without your permission.
2. Filing a patent gives the inventor a legal monopoly on selling, using, making, distributing, importing, or exporting their creation for a specified time period. This keeps others out of the market for the invention, which can be extremely profitable and beneficial.
3. A patent holder can typically charge a premium for an invention because of the restricted competition. No one else is making a similar product.
4. A patent holder can exclude the competition from recreating their product or service. This allows them to sell the product or service at a higher profit margin.
5. An inventor can profit from selling licenses or selling the patent outright.
6. Patents can be extremely valuable for small businesses that may be able to find investors willing to invest merely for rights to a patent.
7. Patents can help businesses of all sizes to expand their market share. When filing a patent, an inventory may have the ability to file it in other states where they plan to sell, thus increasing their territory and the company's share of the market.
8. A patent can provide increased credibility to an inventor and their company.

Disadvantages of patents

1. Your patent application means making certain technical information about your invention **publicly available**. It might be that keeping your invention secret may keep competitors at bay more effectively.
2. Applying for a patent can be a **very time-consuming and lengthy process** (typically three to four years) - markets may change or technology may overtake your invention by the time you get a patent.
3. **Cost** - it will cost you money whether you are successful or not - the application, searches for existing patents and a patent attorney's fees can all contribute to a reasonable outlay. The potential for making a profit should outweigh the time, effort and money it takes to get and maintain a patent. **Not all patents have financial value.**
4. You'll need to remember to **pay your annual fee or your patent will lapse.**
5. You'll need to be prepared to defend your patent. **Taking action against an infringer can be very expensive.** On the other hand, a patent can act as a deterrent, making defense unnecessary.
6. It is for limited time i.e. 20 years.

Legislation Regarding Patent: **The Patents Act, 1970** is a landmark in the industrial development of India. The basic philosophy of the Act is that patents are granted to encourage inventions and to ensure that these inventions are worked on a commercial scale without undue delay.

We will study this briefly in Lecture no.6 & 7.

*Copyright

Copyright (or author's right) is a legal term used to describe the rights that creators have over their literary and artistic works. Works covered by copyright range from books, music, paintings, sculpture, and films, to computer programs, databases, advertisements, maps, and technical drawings.

What can be protected under Copyright?

- literary works such as novels, poems, plays, reference works, newspaper articles; computer programs, databases;

- films, musical compositions, and choreography;
- artistic works such as paintings, drawings, photographs, and sculpture;
- architecture; and
- advertisements, maps, and technical drawings.

Copyright Act, 1957

- Copyright in India is governed by Copyright Act, 1957. This Act has been amended several times to keep pace with the changing times.
- As per this Act, copyright grants author's lifetime coverage plus 60 years after death.
- Copyright and related rights on cultural goods, products and services, arise from individual or collective creativity.
- All original intellectual creations expressed in a reproducible form will be connected as "works eligible for copyright protections".
- Copyright laws distinguish between different classes of works such as literary, artistic, musical works and sound recordings and cinematograph films.
- The work is protected irrespective of the quality thereof and also when it may have very little in common with accepted forms of literature or art.
- The Copyright Act, 1957, was amended in 1984 and computer programming was included with the definition of "literary work."
- The new definition of "computer programme" introduced in 1994.
- The Copyright (Amendment) Act, 1999 makes it free for purchaser of a gadget/equipment to sell it onwards if the item being transacted is not the main item covered under the Copyright Act. This means computer software which is built in the integral part of a gadget/equipment can be freely transacted without permission of copyright owner.
- The act leads to setup Copyright Office and Copyright Board.

Features of Copyright Act 1957/Rights granted by Copyright Act 1957:

The Copyright Act, 1957 confers copyright protection in the following two forms: 1. Economic Rights
2. Moral Rights

1. Economic Rights

Several exclusive rights typically attach to the holder of a copyright:-

- to produce copies or reproductions of the work and
- to sell those copies (including, typically, electronic copies)
- to import or export the work
- to create derivative works (works that adapt the original work)
- to perform or display the work publicly
- to sell or assign these rights to others
- to transmit or display by radio or video

2. Moral Rights

(i) Right of paternity: to claim authorship of work and to prevent all others from claiming authorship of his work.

(ii) Right of integrity: to prevent distortion, mutilation or other alterations of his work, or any other action in relation to said work, which would be prejudicial to his honor or reputation.

Advantages of Copyright:

1. Copyrights have a significantly longer statutory life the life of the author plus 70 years.
2. Another advantage of copyrights is that the owner is entitled to actual damages and any additional profits enjoyed by the infringer, or statutory damages. The calculation of damages can be easier for a copyright litigation as opposed to a patent litigation.
3. Copyrights are relatively inexpensive and simple to register.
4. These rights include the right to authorize others to produce or reproduce your work as well as the right broadcast your work.

Disadvantages of Copyright:

1. Inability to Share Work

2. The primary disadvantage for copyrights is that copyrights protect the expression of an idea, not the idea itself. Patents and trade secrets typically protect ideas.
3. Authorship is not ownership: The protection offered by the copyright may allow for production and reproduction of the content but may not necessarily give the owner the full rights of ownership.
4. There is no provision for parody: There is usually no provision for parody of the copyrighted material. This means that it has to be the original material or nothing.
5. Always susceptible to stealing: There is always someone who is out there looking to steal the copyrighted material. Even though the copyright is protected, someone may still reproduce it illegally.
6. Can only be attached to one person: Copyrights can only be attached to one person or a group of people at a go.

The Indian copyright legislation namely the Copyright Act, 1957 provides for three important authorities and institutions for registration of copyright, effective protection of copyright and also for better enforcement of the copyright of owners and others. They are Copyright Office ,Copyright Board ,Copyright Societies

COPYRIGHT BOARD It is a body constituted under the Copyright Act for the discharge of certain judicial functions under the Act. Constituted by the Central Government (Section 11 of the Act) .The Board was constituted in 1958 .Not a standing body.

Functions of the copyright board

1. To decide whether a work has been published or as to the date on which the work was published.
2. To settle disputes arising in respect of assignment of copyright.
3. To grant compulsory licenses in respect of Indian works withheld from public.
4. To grant compulsory licenses to publish unpublished Indian works.

*Trade Mark

A trade mark is a word, phrase, symbol or design, or combination of words, phrases, symbols or designs used in the course of trade which identifies and distinguishes the source of the goods or services of one enterprise from those of others. **IMP**

A trademark is a sign capable of distinguishing the goods or services of one enterprise from those of other enterprises. Trademarks are protected by intellectual property rights. – WIPO



Types of Trademarks

1. **WORD MARKS:** Word marks may be letters or numerals.
2. **DEVICE MARKS:** Where the trademark lies in the unique representation of a word, letter or numerical; it is called as a device mark.
3. **SERVICE MARKS:** A service mark is nothing but a mark that distinguishes the services of one person from that of another. Service marks do not represent goods, but the services offered by one individual / company. They are used in a service business where actual goods under the mark are not traded.
4. **COLLECTIVE MARKS:** Marks being used by a group of companies can now be protected by the group collectively. Collective marks are used to inform public about a particular feature of the product for which the collective mark is used. The owner of such marks may be an association / public institution / cooperative.
5. **CERTIFICATION MARKS:** Certification marks are used to define standards. They assure the consumers that the product meets certain prescribed standards. The presence of certification mark on the product indicates that the product has successfully gone through a standard test specified. It assures the buyer / consumer that the manufacturers have gone through an audit process to ensure the quality of the product.
6. **WELL - KNOWN MARKS:** When a Mark is easily recognized among a large percentage of population it achieves the status of a well-known mark. Well-known marks enjoy greater protection.
7. **UNCONVENTIONAL TRADEMARKS:** Unconventional trademarks are those trademarks which get recognition for their inherently distinctive feature. Unconventional trademarks include the following categories:
 - **COLOUR TRADEMARK:** if a particular color has become a distinctive feature indicating the goods of a particular trade it can be registered as a trademark. E.G: Red Wine
 - **SOUNDS MARKS:** sign which are perceived by hearing and which is distinguishable by their distinctive & exclusive sound can be registered as sound marks. E.G: Musical Notes
 - **SHAPE MARKS:** When the shape of goods, packaging have some distinctive feature it can be registered. E.G: Ornamental Lamps.
 - **SMELL MARKS:** when the smell is distinctive & cannot be mistaken for an associated product it can be registered as smell mark. E.G: Perfumes.

Category	Mark
WORD MARK	
DEVICE MARK	
SERVICE MARK	
COLLECTIVE MARK	
CERTIFICATION MARK	
WELL KNOWN MARK	

Trademark Act, 1999

The Government enacted the Indian Merchandise Marks Act, 1889 and with development and changes, on 25th November 1958 The Trade And Merchandise Marks Act came into force. Later Trademarks Bill was introduced in 1994. The Bill pointed towards the changes which were contemplated and were under consideration of the Government of India, but it lapsed in 1994. A comprehensive review was made of the existing laws in view of the developments in trading and commercial practices, and increasing globalization of trade and industry. The Trademarks Bill of 1999 was passed by Parliament that received the assent of the President on **30th December, 1999** as **Trade Marks Act, 1999** thereby replacing the Trade and Merchandise Mark Act of 1958.

Salient features of Trademark Act, 1999

- Providing for registration of trademarks for services.
- Providing for an appellate board for speedy disposal of appeals.
- Transferring the final authority relating to registration of certification trade mark to registrar.
- Providing enhanced punishments for the offenses related to trademarks.
- Increasing the period of registration and renewal from 7 years to 10 years.

Advantages of Trademark Registration

1. Protects your hard earned goodwill in the business
2. Protects your Name / Brand Name from being used in a same or similar fashion, by any other business firm, thus discourages others from cashing on your well built goodwill
3. Gives your products a status of Branded Goods.
4. Gives an impression to your customers that the company is selling some standard Products or Services
5. The exclusive right to the use of the trade mark in relation to the goods or services in respect of which the trade mark is registered.
6. To obtain relief in respect of infringement (misuse by others) of the trade mark.
7. Power to assign (transfer) the trade mark to others for consideration.

Disadvantages of Trademark Registration

- 1) Cost and renewal fees.
- 2) Hurdles to registration.
- 3) If you change the trademark, you may need a new registration.

Trademark Infringement

Trademark Infringement is a violation of exclusive rights attaching to a trademark without the authorization of the trademark owner or any licensee. Offences shall be punishable with imprisonment for a term of minimum of six months but which may extend to three years and with a minimum fine of fifty thousand rupees but which may extend to two lakh rupees or more. For adequate and special reasons mentioned in the judgment, the court may impose a sentence of imprisonment for a term of less than six months or a fine of less than fifty thousand rupees.

INDUSTRIAL DESIGNS

In a legal sense, an industrial design constitutes the ornamental or aesthetic aspect of an article. It may consist of three dimensional features, such as the shape of an article, or two dimensional features, such as patterns, lines or color. -Wipo.

The duration of protection is to be not less than 10 years but it can be extended 5 years by paying renewal fee.

Design as per Section 2(d) of the Designs Act, 2000 means only the features of shape, configuration, pattern or ornament or composition of lines or colour or combination thereof applied to any article whether two dimensional or three dimensional or in both forms, by any industrial process or means, whether manual, mechanical or chemical, separate or combined.

What is Not a Design?

As stated in the definition of the design above, design does not include:

(i) Any trademark, (ii) any property mark, (iii) any artistic work.

Non-registered designs are as under:

- Book, jackets, calendars, certificates, forms and other documents.
- Dress making patterns, greeting cards, leaflets, maps and plan cards.
- Post cards, stamps and medals.
- Labels, tokens, cards and cartoons.
- Any principle or mode of construction of an article.
- Mere workshop alterations of components of an assembly.
- Mere change in size of article.
- Flags, emblems or signs of any country.
- Layout designs of integrated circuits.

Registrable Design

A design is capable of being registered only if it is new or original.

Novelty: A design shall be considered to be new when it has not been disclosed to the public, anywhere in India or in any other Country, by publication or by use or in any other way, prior to the filing date or priority date.

A design shall be considered new if it is significantly distinguishable from known designs or combination of known designs.

Type of Applications

(a) Ordinary application. : An ordinary application does not claim priority.

(b) Reciprocity application. : A reciprocity application claims priority of an application filed previously in a convention country.

Such an application shall be filed in India within six month from the date of filing in Convention Country. This period of six months is not extendable.

Infringement:

If any person commits piracy of a registered design, as defined in Section 22, he shall be liable to pay for a payment of a sum not exceeding 25,000/- recoverable as contract debt. However, the total sum recoverable in respect of any one design shall not exceed 50,000/-.

The suit for injunction/damages shall not be instituted in any Court below the Court of District Judge.

India's Design Act, 2000

It was enacted to consolidate and amend the law relating to protection of design and to comply with the articles 25 and 26 of TRIPS agreement. **The Designs Act of 1911 has been replaced by the Designs Act, 2000.** In view of considerable progress made in the field of science and technology, a need was felt to provide more efficient legal system for the protection of industrial designs in order to ensure effective protection to registered designs, and to encourage design activity to promote the design element in an article of production. The new Act complies with the requirements of TRIPS and hence is directly relevant for international trade.

The new act now defines "design" to mean only the features of shape, configuration, pattern, ornament, or composition of lines or colours applied to any article, whether in two- or three-dimensional, or in both forms, by any industrial process or means, whether manual or mechanical or chemical, separate or combined, which in the finished article appeal to and are judged solely by the eye; but does not include any mode or principle of construction.

The salient features of the Design Act, 2000 are as under:

(a) Enlarging the scope of definition of the terms "article", "design" and introduction of definition of "original".

(b) Amplifying the scope of "prior publication".

(c) Introduction of provision for delegation of powers of the Controller to other officers and stipulating statutory duties of examiners.

(d) Provision of identification of non-registrable designs.

(e) Provision for substitution of applicant before registration of a design.

(f) Substitution of Indian classification by internationally followed system of classification.

(g) Provision for inclusion of a register to be maintained on computer as a Register of Designs.

(h) Provision for restoration of lapsed designs.

(i) Provisions for appeal against orders of the Controller before the High Court instead of Central Government.

(j) Revoking of period of secrecy of two years of a registered design.

(k) Providing for compulsory registration of any document for transfer of right in the registered design.

(l) Introduction of additional grounds in cancellation proceedings and provision for initiating the cancellation proceedings before the Controller in place of High Court.

(m) Enhancement of quantum of penalty imposed for infringement of a registered design.

(n) Provision for grounds of cancellation to be taken as defence in the infringement proceedings to be in any court not below the Court of District Judge.

(o) Enhancing initial period of registration from 5 to 10 years, to be followed by a further extension of five years.

(p) Provision for allowance of priority to other convention countries and countries belonging to the group of countries or inter governmental organizations apart from United Kingdom and other Commonwealth Countries.

(q) Provision for avoidance of certain restrictive conditions for the control of anticompetitive practices in contractual licenses.

Advantages of Industrial Design Registration:

- Imparts Value to Product
- Generates Profit
- Promotes Healthy Competition
- Economic Development
- Industrial design protection provides assurance to the designers throughout the country and motivates them in bringing out more new designs. This leads to the growth of a country economically.

Disadvantages of Industrial Design Registration:

1. Initial Fee cost 2. Complex registration Process 3. Limited Period Protection 4. Renewing process.

Geographical Indications

“Geographical indication” in relation to goods means an indication which identifies such goods as agricultural goods, natural goods or manufactured goods as originating, or manufactured in the territory of a country, or a region or locality in that territory, where a given quality, reputation or other characteristic of such goods is essentially attributable to its geographical origin and in case where such goods are manufactured goods one of the activities of either the production or of processing or preparation of the goods concerned takes place in such territory, region or locality, as the case may be.

A geographical indication (GI) is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin. -WIPO

Geographical indications are typically used for agricultural products, foodstuffs, wine and spirit drinks, handicrafts, and industrial products.

“Goods” mean any agricultural, natural or manufactured goods or any goods of handicraft or of industry and includes food stuff.

The Geographical Indications Registry is located at Chennai.

BENEFITS OF GIs

- It confers legal protection.
- Prevents unauthorized use of a Registered Geographical Indication by others.
- It promotes economic prosperity of producers of goods produced in a geographical territory.
- Boosts the export
- Can serve as source-identifiers for consumers. Helps the producers develop consumer loyalty.
- Plays a role in consumer decisions, including willingness to pay a higher price for regionally branded food products. For example, geographic location is an important component of wine pricing.

Challenges in GI

- Low brand value
- Lack of awareness of rules & regulations.
- Rampant misuse of Indian GI
- Immigration of labors.

Examples of GI

- **Textiles and Handicrafts** - nirmal toys, bukhara carpets, hereke carpets, Mysore silk, Madhubani Paintings, Kolhapuri Chappal
- **Fruits and nuts** - Kesari, Alphonso, Dashari, Chounsa, Makhana, Nagpur orange, seville oranges, jaffa oranges
- **Ayurvedic products & medicinal plants** - Triphala, Chayavanprash, Njavara rice, Ashvagandha
- **Alcoholic & non alcoholic beverages** - Feni, tequila, sherry wine, rioja wine, bordeaux, champagne, Darjeeling tea, Nilgiri tea
- **Food grains** - Basmati rice, Aajra ghansal rice, tandur dal.
- **Animal and meat products** - Kadaknath, chegu goat, Jamunapari goat (paneer) ongole bull
- **Miscellaneous products** - Masticatory (paan); food recipes (chicken tikka, hyderabadi biryani; swiss fondue); timbers, bhedaghat marbel, gangajal
- **Special skills required** (khurja ceramics- delft ceramics, Ferozabad glass-belgian glass, toledo steel- Munger country made pistols, Kolhapur gud (Jaggery))

- **Rural niche products** – Desi ghee, sirka, feta cheese, sherry vinegar.

Under European Union Law, the protected designation of origin framework which came into effect in 1992 regulates the following systems of geographical indications:

**1. Protected designation of origin (PDO), 2. Protected geographical indication (PGI)
3. Traditional Specialties Guaranteed (TSG) EU quality logos**

1. **Protected designations of origin (PDO):** covers agricultural products and foodstuffs which are produced, processed and prepared in a given geographical area using recognized know-how
2. **Protected Geographical Indication (PGI):** covers agricultural products and foodstuffs closely linked to the geographical area. At least one of the stages of production, processing or preparation takes place in the area, while the raw materials used in production may come from another region
3. **Traditional Specialties Guaranteed (TSG):** highlights traditional character, either in the composition or means of production.

The Geographical Indications of Goods (Registration and Protection) Act, 1999

Until recently, Geographical indications were not registrable in India and in the absence of statutory protection; Indian geographical indications had been misused by persons outside India to indicate goods not originating from the named locality in India. Patenting turmeric, neem and basmati are the instances which drew a lot of attention towards this aspect of the Intellectual property. Mention should be made that under the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS), there is no obligation for other countries to extend reciprocal protection unless a geographical indication is protected in the country of its origin. India did not have such a specific law governing geographical indications of goods which could adequately protect the interest of producers of such goods. To cover up such situations it became necessary to have a comprehensive legislation for registration and for providing adequate protection to geographical indications and accordingly the Parliament has passed a legislation, namely, **The Geographical indication of Goods (Registration and Protection) Act, 1999**. The legislation is administered through the Geographical Indication Registry under the overall charge of the Controller General of Patents, Designs and Trade Marks. The Geographical Indications of Goods (Registration and Protection) Act, 1999 came in force with **effect from September 2003**.

The salient features of this legislation are as under:

- (a) Provision of definition of several important terms like "geographical indication", "goods", "producers", "packages", "registered proprietor", "authorized user" etc.
- (b) Registration of geographical indications of goods in specified classes.
- (c) Prohibition of registration of certain geographical indications.
- (d) Provisions for framing of rules by Central Government for filing of application, its contents and matters relating to substantive examination of geographical indication applications.
- (e) Compulsory advertisement of all accepted geographical indication applications and for inviting objections.
- (f) Registration of authorized users of registered geographical indications and providing provisions for taking infringement action either by a registered proprietor or an authorized user.
- (g) Provisions for higher level of protection for notified goods.
- (h) Prohibition of assignment etc. of a geographical indication as it is public property.
- (i) Prohibition of registration of geographical indication as a trademark.
- (j) Appeal against Registrar's decision would be to the Intellectual Property Board established under the Trade Mark legislation.
- (k) Provision relating to offences and penalties.
- (l) Provision detailing the effects of registration and the rights conferred by registration.
- (m) Provision for reciprocity powers of the registrar, maintenance of Index, protection of homonymous geographical indications etc.

INTEGRATED CIRCUITS

An integrated circuit is a miniature electrical circuit containing electronic devices, some or all of the devices and interconnections of which are embedded in or on a piece of material, usually a semiconductor material e.g. silicon.

What are Integrated Circuits used for?

Integrated circuits are used as computer memory circuits and microprocessors. They are used in the equipment used by manufacturers and processors to improve production efficiency. They are also used in many familiar and household items and products like aircraft, cars, washing machines, radios and cellular telephones.

What are Layout Designs of Integrated Circuits?

Layout designs, sometimes called topographies, of integrated circuits are the three-dimensional placement of some or all of the elements and interconnections that make up an integrated circuit.

Why is the Layout Design of an Integrated Circuit important?

New layout designs of integrated circuits aim mainly at improving the performance efficiency of the circuitry within the limits of the materials and technologies being used. This should result in more functions being carried out with lower power consumption on the same amount of semi-conductor material. For consumers this means products that are better value for money.

When is a Layout Design considered to be original?

A layout design is considered original if it is the result of the creators own intellectual effort and if it is not commonplace among creators of layout designs and manufacturers of integrated circuits at the time of its creation.

How can the Layout Design of an Integrated Circuit be protected?

Patents can protect integrated circuits themselves. In fact The first integrated circuit patent was given to Robert Noyce of Fairfield Electronics by the United States patent office on April 25, 1961.

But the layout design is unlikely to meet the criteria required for a patent.

The importance of layout designs, the cost of research to develop a new and useful design, and particularly the ease with which a new design can be copied, prompted the development of its own form of legal protection as an intellectual property right.

The protection lasts 10 years after the commencement of protection.

Semiconductor Integrated Circuit Layout-Designs Act, 2000

Microelectronics, which primarily refers to Integrated Circuits (ICs) ranging from, Small Scale Integration (SSI) to Very Large Scale Integration (VLSI) on a semiconductor chip - has rightly been recognized as a core, strategic technology world-over, especially for Information Technology (IT) based society. Design of integrated circuits requires considerable expertise and effort depending on the complexity. Therefore, protection of Intellectual Property Rights (IPR) embedded in the layout designs is of utmost importance to encourage continued investments in R & D to result in technological advancements in the field of microelectronics.

The practice of providing protection through the methods of Copyright, Patents did not appropriately accommodate the requirements of Intellectual Property Rights protection for the Layout-Designs of Integrated Circuits. This was because of the fact that in the context of Layout Designs, the concept of "originality" is of utmost significance, whether it is a "novelty or not". While the Patent Law requires that the idea should be original as well as novel, the copyright law is too general to accommodate the original ideas of scientific creation of Layout-Designs of Integrated Circuits. In view of the above, the necessity for providing protection for Layout-Designs of Integrated Circuits was felt to reward and encourage an adequate level of investment of human, financial and technological resources.

The Government enacted the Semiconductor Integrated Circuit Layout- Designs Act, 2000 providing for protection of Semiconductor Integrated Circuits Layout-Designs by process of registration, mechanism for distinguishing Layout-Designs which can be protected, rules to prohibit registration of Layout-Designs which are not original and/or which have been commercially exploited, period for protection, provisions with regard to infringement, payment of royalty for registered Layout-Design, provisions for dealing with willful infringement by way of punishment, appointing a Registrar for registering the Layout Designs and mechanism of Appellate Board.

TRADE SECRETS

A trade secret may consist of any formula, pattern, physical device, idea, process or compilation of information that provides a competitive advantage in the marketplace, and is kept secret to prevent the public or competitors from learning about it, absent improper acquisition or theft.

Eg. Recipe of Coca-cola, Recipe of any food item, Mechanical process of any device making.

Advantages of a Trade Secret:

- No registration costs.
- No time limit for protection.
- Protection is immediately effective.
- It does not require any disclosure or registration with the Government

Disadvantages of a Trade Secret:

- Protection ceases if the secret is disclosed.
- If the secret is embodied in a product, it can be discovered through reverse engineering and patented by another party.
- It is effective against only improper acquisition and use. There is no safeguard against fair discovery.
- Protection granted is weaker than that of patents.

There is no specific legislation in India to protect trade secrets and confidential information. Nevertheless, Indian courts have upheld trade secret protection on basis of principles of equity, and at times, upon a common law action of breach of confidence, which in effect amounts a breach of contractual obligation. The remedies available to the owner of trade secrets is to obtain an injunction preventing the licensee from disclosing the trade secret, return of all confidential and proprietary information and compensation for any losses suffered due to disclosure of trade secrets.

In India, a person can be contractually bound not to disclose any information that is revealed to him/her in confidence. The Indian courts have upheld a restrictive clause in a technology transfer agreement, which imposes negative covenants on licensee not to disclose or use the information received under the agreement for any purpose other than that agreed in the said agreement.

Lec. No. 6-7 Patents Act 1970 and Patent system in India, patentability, process and product patent, filing of patent, patent specification, patent claims, Patent opposition and revocation.

The Patents Act, 1970

The Patents Act, 1970 is a landmark in the industrial development of India. The basic philosophy of the Act is that patents are granted to encourage inventions and to ensure that these inventions are worked on a commercial scale without undue delay.

The word "Invention" has been defined under the Patents Act 1970 as amended from time to time; as "An invention means a new product or process involving an inventive step and capable of industrial application."

"**New invention**" is defined as any invention or technology which has not been anticipated by publication in any document or used in the country or elsewhere in the world before the date of filing of patent application with complete specification, i.e. the subject matter has not fallen in public domain or that it does not form part of the state of the art.

India amended its Patents Act again in 2002 through the Patents (Amendment) Act, 2002 increasing the term of patent to 20 years for all technology, Reversal of burden of proof, compulsory licences etc. This Act came into force on 20th May 2003 with the introduction of the new Patent Rules, 2003 by replacing the earlier Patents Rules, 1972. Again in 2016 the patent law was amended i.e. The patent act (Amendment) 2016.

***Salient features of Patent Law**

- **Both product and process patent provided**

- The Law permits to patent any invention that is new, useful to the society, has commercial application and inventive step. The patent is granted for product as well as process. Roche India Pvt Ltd, the Indian arm of Swiss drugmaker F Hoffmann La Roche, got its first Patent in India for its biotech drug Pegasys (Peinterferon apha-2a). Patent for process was provided to “A process of making rare earth doped optical fiber”
- A mere admixture, method of agriculture or horticulture and plants and animals cannot be patented under this Act.

- **Requirement for application**

- An application for patent should contain complete description of the invention (also known as patent specification).

- **Examination on request :**

- After filing the application for a patent, a request for examination is essential to be made for examination of the application by the Indian Patent Office.

- **Both pre-grant and post-grant opposition :**

- The patent can be opposed by any person within six months from the publication of the patent application. This is known as Pre grant opposition. The invention can be challenged even after it gets patent, but the opposition should come within 12 months from the publication of the grant of the patent.

- **Term of Patent**

- The term of patent in every category in India is twenty years from the date of filing the patent application. In case of applications filed through the Patent Cooperative Treaty (PCT), the term of twenty years begins from the international filing date.

- **Renewal Fee:**

- The patentee has to pay renewal fee to keep the patent alive.

- **Patent of Biological Material**

- If the invention uses a biological material which is new, it is essential to deposit the same in the International Depository Authority (“IDA”) before filing of the application in India in order to supplement the description. Publication of applications after 18 months with facility for early publication.
- **Rights conferred on the Patentee:** The act gives exclusive rights to the patentee to manufacture, market, sell, assign and license his patent and at the same time prohibit others from doing so for a limited period of time. It also provides reliefs against infringements in the form of injunction and compensations.

- **Compulsory licensing:**

- The act also ensures that patentee doesn’t misuse his rights and also that patents do not prevent the protection of public health and nutrition, by the way of Compulsory Licensing. Under section 84 of Indian Patent Act, compulsory licenses are granted
 - To prevent the misuse of patent as monopoly
 - To Make provisions for commercial exploitation of the patent(If government feels that patent is not available to public at an affordable price, or reasonable requirements of public have not been satisfied.

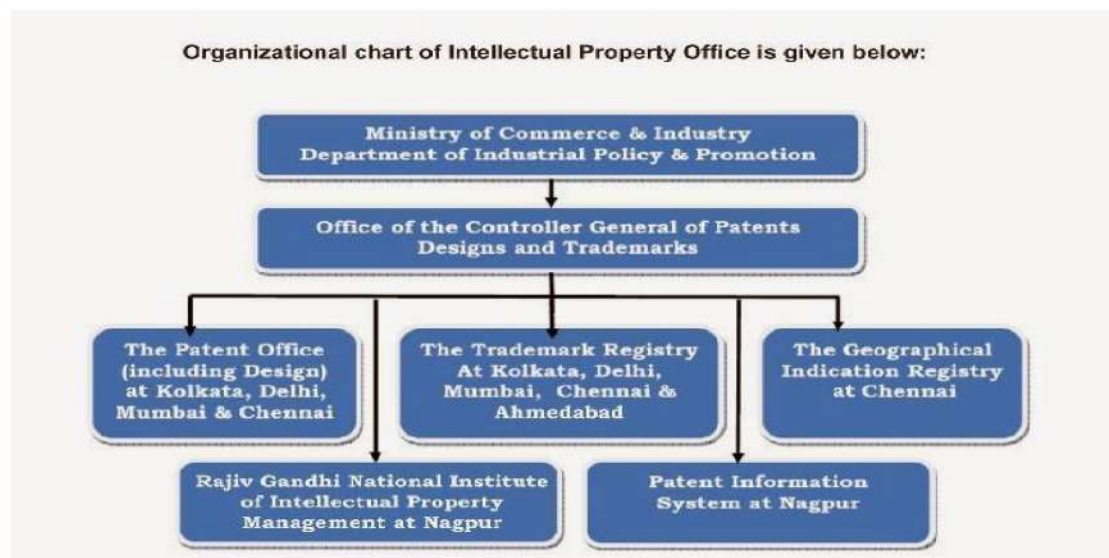
- To take care of public health in India.

The Patent System in India

A patent is a contract between the inventor or applicant for the patent and the State, whereby the inventor or applicant gets a monopoly from the state for a certain period in return for disclosing full details of the invention. The patent system ensures that information on new inventions is made available for eventual public use so as to encourage technical and economic development.

PATENT ADMINISTRATION IN INDIA

Branch Location	Area Covered
1. New Delhi	Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan and Uttar Pradesh, Chandigarh and Delhi.
2. Mumbai	The States of Maharashtra, Gujrat Madhya Pradesh and Goa, Daman & Diu & Dadar & Nagar Haveli
3. Chennai	The States of Andhra Pradesh, Kerala Tamil Nadu, Mysore and Pondicherry, Laccadive, Minicoy and Aminidivi Islands
4. Kolkata(HEAD OFFICE)	States: The rest of India



The first legislation in India relating to patents was the Act VI of 1856. The objective of this legislation was to encourage inventions of new and useful manufactures and to induce inventors to disclose secret of their inventions. The Act was subsequently repealed by Act IX of 1857 since it had been enacted without the approval of the British Crown. Fresh legislation for granting 'exclusive privileges' was introduced in 1859 as Act XV of 1859. This legislation contained certain modifications of the earlier legislation, namely, grant of exclusive privileges to useful inventions only and extension of priority period from 6 months to 12 months. This Act excluded importers from the definition of inventor. This Act was based on the United Kingdom Act of 1852 with certain departures which include allowing assignees to make application in India and also taking prior public use or publication in India or United Kingdom for the purpose of ascertaining novelty.

In 1872, the Act of 1859 was consolidated to provide protection relating to designs. It was renamed as "The Patterns and Designs Protection Act" under Act XIII of 1872. The Act of 1872 was further amended in 1883 (XVI of 1883) to introduce a provision to protect novelty of the invention, which prior to making application for their protection were disclosed in the Exhibition of India. A grace period of 6 months was provided for filing such applications after the date of the opening of such Exhibition.

This Act remained in force for about 30 years without any change but in the year 1883, certain modifications in the patent law were made in United Kingdom and it was considered that those modifications should also be incorporated in the Indian law. In 1888, an Act was introduced to consolidate and amend the law relating to invention and designs in conformity with the amendments made in the U.K. law.

The Indian Patents and Designs Act, 1911, (Act II of 1911) replaced all the previous Acts. This Act brought patent administration under the management of Controller of Patents for the first time. This Act was further amended in 1920 to enter into reciprocal arrangements with UK and other countries for securing priority. In 1930, further amendments were made to incorporate, inter-alia, provisions relating to grant of secret patents, patent of addition, use of invention by Government, powers of the Controller to rectify register of patent and increase of term of the patent from 14 years to 16 years. In 1945, an amendment was made to provide for filing of provisional specification and submission of complete specification within nine months.

After Independence, it was felt that the Indian Patents & Designs Act, 1911 was not fulfilling its objective. It was found desirable to enact comprehensive patent law owing to substantial changes in political and economic conditions in the country. Accordingly, the Government of India constituted a committee under the Chairmanship of Justice (Dr.) Bakshi Tek Chand, a retired Judge of Lahore High Court, in 1949 to review the patent law in India in order to ensure that the patent system is conducive to the national interest. The terms of reference included —

To survey and report on the working of the patent system in India;

To examine the existing patent legislation in India and to make recommendations for improving it, particularly with reference to the provisions concerned with the prevention of abuse of patent rights;

Committee/act	Work/Year
Dr.Bakshi tek chand,1949	Review the patent law in india
N.Rajgopala Ayyangar committee,1957	Introduction of Patent bill,1965
The patent act 1970	1970
Patents (Amendment) Act, 1999	1999
Patents (Amendment) Act, 2002	2002/in force 2003
Patents (Amendment) Act 2005	2005

The Patent information System (PIS) and National Institute of Intellectual Property Management (NIIPM) located at Nagpur

Patentability

What can be patented?

A patent is granted for an invention which may be related to any process or product. An invention is different from a discovery. Discovery is something that already existed but had not been found. Not all inventions are patentable. An invention must fulfill certain requirements known as conditions of patentability. The word “invention” under the Patents Act 1970 means “a new product or process involving an inventive step and capable of industrial application. ” The patent must be in respect of an invention and not a discovery. The fundamental principle of Patent Law is that a patent is granted only for an invention which must be new and useful. That is to say, it must have novelty and utility. It is essential for the validity of a patent that it must be the inventor’s own discovery as opposed to mere verification of what was already known before the date of the patent... It is important to bear in mind that in order to be patentable an improvement on something known before or a combination of different matters already known, should be something more than a mere workshop improvement; and must independently satisfy the test of invention or

an “inventive step”. To be patentable the improvement or the combination must produce a new result, or a new article or a better or cheaper article than before.

Therefore, the conditions of patentability are:

- Novelty
- Inventive step (non-obviousness) and
- Industrial applicability (utility)

1. Novelty

Novelty is one of the most important patentability requirements. It lies at the heart of the patent system. An invention must be new. In other words, the invention must not be in public use or known by others. In most countries the invention must be new at the time of the patent application’s filing, while in some other countries such as the US, the invention must be new at the time of its creation. A prior patent or publication of the same invention will defeat novelty (prevent a patent from being issued or invalidate it later). Basically, if an invention is not new, it is not patentable. While novelty is a fundamental requirement for patentability, the standards of novelty vary from country to country. Keep in mind that novelty does not mean revolutionary; even little things can be new and useful.

2. Utility/Industrial Application

In order to be patentable an invention must be useful. In patent language this is called “utility” in some jurisdictions or “industrial application” in other jurisdictions. These terms are synonymous but not identical. A patent will not be granted if the invention cannot perform its designated function. The historical justification of the utility requirement is to ensure that society receives a positive benefit before granting an exclusive right to an applicant or inventor. Some countries’ patent laws also judge moral aspects such as denying patent protection to inventions that involve harmful functions.

To comply with a utility requirement, an invention does not need to demonstrate superiority to existing products or processes. Typically, utility only requires that an invention performs the functions specified and achieves some minimally-beneficial result.

3. Non-Obviousness/Inventive Step

The third requirement for patentability is non-obviousness. In some countries this requirement is referred to as an “inventive step.” Non-obviousness requires that an invention must not have been obvious to one of ordinary skill “in the art” (the scientific / technical field of the invention). Basically, obviousness means that something cannot be patentable when any person of average skill in the relevant scientific/technical field could put together different pieces of known information and from them arrive at the same result. The time period for non-obvious and inventive step varies across jurisdictions but is typically either at the time of the application’s filing or at the time of its invention.

Eg. A court invalidated a patent for the blockbuster osteoporosis drug Fosamax (in once-weekly form) made by Merck because of prior art that rendered the claimed invention obvious. About a year before Merck filed its patent application, two articles were published in a pharmaceutical journal about osteoporosis. These articles suggested the use of a weekly dose of bisphosphonate to treat osteoporosis instead of a daily dose. The weekly dose alleviated some of the gastro-intestinal (GI) complications caused by taking the pills daily. Merck attempted to patent this once-a-week dosage of the medicine that was seven times the daily dosage. Since the articles previously disclosed the concept of the weekly dosage, the patent was found to be invalid because it was “obvious” in light of prior art.

Patentable Inventions under the Patents Act, 1970

- Art, process, method or manner of manufacture.
- Machine, apparatus or other article, Substances produced by manufacture, which include any new and useful improvements of any of them and an alleged invention.
- However, inventions claiming substance intended for use, or capable of being used, as food or as medicine or drug or relating to substances prepared or produced by chemical processes (including alloys, optical glass, semiconductors and inter-metallic compounds) are not patentable.

Types of Inventions which are not Patentable in India

An invention may satisfy the conditions of novelty, inventiveness and usefulness but it may not qualify for a patent under the following situations:

1. An invention which is frivolous or which claims anything obviously contrary to well established natural laws e.g. different types of perpetual motion machines.
2. An invention the primary or intended use of which would be contrary to law or morality or injurious to public health e.g. a process for the preparation of a beverage which involves use of a carcinogenic substance, although the beverage may have higher nourishment value.
3. The mere discovery of a scientific principle or formulation of an abstract theory e.g., Raman Effect.
4. The mere discovery of any new property or new use of known substance or the mere use of a known process, machine or apparatus unless such a known process results in a new product or employs at least one new reactant.
5. A substance obtained by a mere admixture resulting only in the aggregation of the properties of the components thereof or a process for producing such substance.
6. The mere arrangement or rearrangement or duplication of features of known devices each functioning independently of one another in a known way.
7. A method or process of testing applicable during the process of manufacture for rendering the machine, apparatus or other equipment more efficient.
8. A method of agriculture or horticulture.
9. Any process for medical, surgical, curative, prophylactic or other treatment of human beings, or any process for a similar treatment of animals or plants.
10. Inventions relating to atomic energy.

Product & Process Patent

Process Patent: Process patent means that when a substance is invented or produced, the patent is not granted to the substance itself, but it is only the method or the process of manufacture of a substance that is granted a patent.

It must be remembered that under the scheme of the Indian Patent Act, 1970, Patent is granted not for the benefit of the Patentee but for the benefit of the public at large. Therefore Indian Patent Act 1970 provides only a process patent in particular cases. Eg. Pen with scanner, Chemical Compound.

Product Patent: In product patents, patent is granted not to the method or process of manufacture of a substance but to the substance itself. Therefore, it is the "product" that is covered by the patent. Under the Patents Act, 1970 both product and process patents are available in India. Now India is a signatory to the Agreement on Trade Related Intellectual Property Rights (TRIPS), India is under obligation to provide Product patents to all inventions. Eg. Amazon's one click system, Process of manufacturing any product.

Filing of Patent

There are 2 major ways of filing of patents.

1) Physical filling at the patent office.

2) E-filling/ Online filling.

1. Physical Filling at the patent office:

The application can be submitted to patent office of related territory (Mumbai, Chennai, Kolkata, New Delhi) by post or by hand. A patent application shall be filed on Form-1 along with Provisional / Complete Specification, with the prescribed fee as given in First Schedule at an appropriate office. However, a provisional specification cannot be filed in case of a Convention Application (either directly or through PCT routes). Normal fee shall be applicable for applications containing up to

thirty pages in specification and up to 10 claims. If the specification exceeds thirty pages or claims are more than ten in number, additional fee as given in First Schedule is payable.

GENERAL PROCEDURE FOR OBTAINING A PATENT

- Filing of patent application
- Publication after 18 months
- Pre Grant Opposition /Representation by any person.
- Request for examination
- Examination: Grant or Refusal
- Publication of Grant of patent
- Post Grant Opposition to grant of patent
- Decision By Controller.

2. E-filing

The Indian Patent system launched the E - filing services for Patents in the July 2007 which enabled online filing of new applications for Patents. Appreciating the significance of being more transparent and user friendly in building confidence among stake holders, IPO has further developed the e-filing system so as to cover comprehensive e-filing for Patents, wherein, in addition to online filing of New Applications, subsequent filings have also been integrated. The applicants have the benefit of registering themselves as users and owning personal folders in the IPO's environment.

Website: ipindiaonline.gov.in



Procedure for e-filing:

Basic requirements:

- Operating System: Microsoft Windows XP with SP3 and above
- Web Browser: Internet Explorer 6 and above
- Digital Signatures:

Vendor(s)	Signature Class	URL
(n)Code Solutions	Class III	https://www.ncodesolutions.com
TCS	Class III	http://www.tcs-ca.tcs.co.in
Safe Scrypt	Class III	https://digitalid.safescrypt.com
e mudhra	Class III	https://www.e-mudhra.com

- Payment Gateway:
- Net Banking (All Major Banks)
- Debit Card (All Major Banks)
- Credit Card (VISA & MASTER CARD)

Steps for E-filing:

1. Visit to the website ipindia.gov.in
2. Login facility is available on the home page. User has to register for logging in. If you are new user [Applicant (Natural Person), an Agent, Authorized representative of a legal entity]

- (ONP), Authorized representative of a Small entity (SE)] then u have to register by creating new user id and password. Then add your digital signatures.
3. Then Login with your user id and password.
 4. Now the window appears showing "quick form filling" option at left side.
 5. Fill the all required information in forms.(Form no 1,2,9,13,18) & Upload the required documents.{You can fill it offline also with creating XML file & Uploading it with Digital signature.}
 6. Then add digital signatures by clicking on "Sign Document" button.
 7. After the forms are digitally signed, it is ready for making the payment though the available Payment Gateways. Now just check the ready forms that require payment, select the payment mode and bank and proceed.
 8. If the payment is completed successfully then acknowledgement slip would be displayed. Go to print button and print out the slip.

Patent specification

The Specification is a techno-legal document containing full scientific details of the invention and claims to the patent rights. The Specification, thus, forms a crucial part of the Patent Application. It is mandatory on the part of an applicant to disclose fully and particularly various features constituting the invention. The Specification may be filed either as a provisional or as a complete specification. The Specification (provisional or complete) is to be submitted in Form-2 along with the Application in Form-1 and other documents, in duplicate, along with the prescribed fee as given in the First Schedule.

1. Provisional Specification: When the applicant finds that his invention has reached a stage wherein it can be disclosed on paper, but has not attained the final stage, he may prepare a disclosure of the invention in the form of a written description and submit it to Patent Office as a provisional specification which describes the invention. A provisional specification secures a priority date for the application over any other application which is likely to be filed in respect of the same invention being developed concurrently. Immediately on receiving the Provisional Specification the Patent Office accords a filing date and application number to the Application. It gives little description about invention. The complete specification should be file within 12 months.

2. Complete Specification:

The complete specification is a techno-legal document which fully and particularly describes the invention and discloses the best method of performing the invention. As the complete specification is an extremely important document in the patent proceedings it is advised that it should be drafted with utmost care without any ambiguity. (Laziness)

In case of an international application designating India the title, description, drawings, abstracts and claims filed with the application shall be taken as the complete specification for the purposes of the Act. The claim or claims of a complete specification shall relate to a single invention, or to a group of inventions linked so as to form a single inventive concept, shall be clear and succinct and shall be fairly based on the matter disclosed in the specification.

The contents of a complete specification would include the following:

- (1) Title of the invention.
- (2) Field to which the invention belongs.
- (3) Background of the invention including prior art giving drawbacks of the known inventions & practices.
- (4) Complete description of the invention along with experimental results.
- (5) Drawings etc. essential for understanding the invention.
- (6) Claims, which are statements, related to the invention on which legal proprietorship is being sought. Therefore the claims have to be drafted very carefully.

Patent Claims

A patent claim is indisputably the most important part of a patent specification. It defines the boundary of the patent. To break it down, a patent claim defines exactly what is claimed by the invention and therefore what is sought to be protected. It clearly lays down what the patent does and does not cover. Simply put, the extent of protection conferred by a patent is defined by the patent claims. A claim is usually expressed as a statement of technical facts expressed in legal terms, defining the scope of the invention sought to be protected.

Claims may be as many in numbers.

1. First claim is called as "Principal claim" and subsequent claims called "Preferred embodiments." Or "Subordinate claims."
2. Principal claim should define all essential novel features of the invention.
3. Optional feature may be claimed in subordinate claims. But this subordinate claims can't stand alone.
4. They should be clear and concise.
5. Claims should relate to single invention.
6. Should be fairly based on matter disclosed in the specification.
7. Should comply with requirement of section 2i (j), 3, 4 & 10.
8. The claim should consist of one sentence. No full stop within the claim.
9. Swiss type claims are not allowed.
10. Claims are the components of Complete specification.

Patent Opposition & Revocation

Patent Opposition:

Opposition to the grant of Patent signifies the first instance at which a challenge can be made to the grant of a patent. Opportunity for the competitor to oppose unjustified protective rights. The Indian patent office also provides a period during which third parties may oppose the grant of patent. Opposition proceedings may be Pre-grant/Post-grant and may be initiated within specified time limits.

Authorities for invoking opposition: 1. Patent Office 2. Intellectual Property Appellate Board [IPAB] 3. High Court [Concerned Jurisdiction]

PRE GRANT OPPOSITION: After publication but before the grant of patent, any person, based on different grounds may file a pre grant opposition, in writing, represent by way of opposition to the Controller against the grant of patent. However the opposition will be taken by the patent office only after the filing of Request for Examination.

Time limit: May be filed within 3 months from the date of publication of the application or Before the grant of patent, whichever is later.

Fee: NO FEE

Form and Content: Form 7A along with the representation comprise of following particulars: 1. Statement regarding opposition; 2. Evidence regarding opposition; (if any) 3. Request for hearing (Optional).

POST GRANT OPPOSITION: After grant of patent any interested person, based on different grounds may file a post grant opposition in Form 7 to the Controller against the grant of patent.

Time limit: Within one year after the grant of a patent.

Fee: 1500/- for individual & 6000/- for legal entity.

Form and Content: 1. Notice of opposition shall be in Form 7 (in duplicate) 2. Written Statement setting out nature of the interest (in duplicate); 3. Evidence regarding opposition; 4. Statutory fees; 5. Request for hearing (Optional).

Grounds or causes for opposition of Patent as per Section 25 of the Patent Act:

1. Applicant wrongly obtained the invention
2. Publication before priority date of patent application.
3. Prior claiming
4. Invention publicly known
5. Obvious – no inventive step
6. No invention as per the Patent Act

7. Invention not described clearly and sufficiently
8. Undertaking under sec. 8, about foreign filing
9. Convention application not filed in 12 months
- 10.No disclosure about source or geographical origin
- 11.Anticipation – traditional knowledge

Patent Revocation: Revocation means Cancellation of the rights granted to a person by the grant of a patent. The patent can be revoked on petition of any person interested or of the Central Government or on a counter claim in a suit for infringement of the patent by the High Court or on the basis of the grounds mentioned in section 64. The objections on validity of patent can be raised even after the patent is granted is called as “Revocation”.

Grounds for Revocation of Patent:

- The Claims are invalid;
- The Patentee is not entitled for the patent;
- Wrongful obtainment of patent;
- The subject of any claim is not an invention;
- The subject of the invention is not new;
- The subject claimed is obvious;
- The subject claimed is not useful;
- The description of the invention as disclosed in the specification is not elaborate;
- The scope of invention disclosed in claims is insufficient;
- The patent was obtained on a false suggestion or representation;
- The subject in claim not patentable matter;
- The invention was secretly used in India before the priority date;
- The details under section 8 not been disclosed or wrongfully disclosed;
- Secrecy direction has been issued against the invention;
- The amendment of patent application stands outside the section 57 or section 58;
- The origin of biological material was wrongfully disclosed or not disclosed;
- The invention claimed is anticipated by prior knowledge in any local community.

Lec.No .8 Penalties for infringement, Compulsory licensing, Patent Cooperation Treaty, Patent search and patent database.

OFFENCES AND PENALTIES

1.Contravention of secrecy provisions relating to certain inventions: imprisonment for a term which may extend to two years, or with fine, or with both.

2.Falsification of entries in register, etc.: imprisonment for a term which may extend to two years, or with fine, or with both.

- 3.Unauthorised claim of patent rights:** punishable with fine which may extend to five hundred rupees.
- 4.Wrongful use of words, direct or indirect include word "patent office" :** imprisonment for a term which may extend to six months, or with fine, or with both.
- 5. Refusal or failure to supply information:** imprisonment for a term which may extend to six months, or with fine, or with both.
- 6.Practice by non-registered patent agents**(working as patent agent without registering): fine which may extend to Rs.500 in the case of a first offence and Rs.2000 in the case of subsequent offence.
- 7.Offences by companies:** If any company as well as every person in charge of, and in responsible to that company found responsible for the conduct of his/ their business at the time of commission of the offence shall be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Compulsory Licensing

Compulsory licenses are authorizations given to a third-party by the Controller General to make, use or sell a particular product or use a particular process which has been patented, without the need of the permission of the patent owner.

The provisions for compulsory licenses are made to prevent the abuse of patent as a monopoly and to make the way for commercial exploitation of the invention by an interested person. According to Section 84 **any person interested can make an application for grant of compulsory license for a patent after three years from the date of grant of that patent** on any of the following grounds –

- (a) That the reasonable requirements of the public with respect to the patented invention have not been satisfied, or
- (b) That the patented invention is not available to the public at a reasonably affordable price, or
- (c) That the patented invention is not worked in the territory of India.

Terms and Conditions of Compulsory Licenses

Section 90 provides that in settling the terms and conditions of a compulsory license, the Controller shall endeavor to secure that —

- (I) The royalty and other remuneration, if any, reserved to the patentee or other person beneficially entitled to the patent, is reasonable, having regard to the nature of the invention, the expenditure incurred by the patentee in making the invention or in developing it and obtaining a patent and keeping it in force and other relevant factors;
- (ii) The patented invention is worked to the fullest extent by the person to whom the license is granted and with reasonable profit to him;
- (iii) The patented articles are made available to the public at reasonably affordable prices;
- (iv) The license granted is a non-exclusive license;
- (v) The right of the licensee is non-assignable;
- (vi) The license is for the balance term of the patent unless a shorter term is consistent with public interest;
- (vii) The license is granted with a predominant purpose of supply in the Indian market and the licensee may also export the patented product if need be in accordance with section 84(7)(a)(iii).

(viii) In the case of semi-conductor technology, the license granted is to work the invention for public noncommercial use.

(ix) In case the license is granted to remedy a practice determined after judicial or administrative process to be anti-competitive, the licensee shall be permitted, if need be, to export the patented product.

Patent co-operation treaty (PCT)

The Patent Cooperation Treaty (PCT) is an international treaty that was concluded in Washington in 1970 and now-a-days connecting with more than 152 Contracting States. It is administered by the World Intellectual Property Organization (WIPO). The PCT makes it possible to seek patent protection for an invention simultaneously in a large number of countries by filing a single “international” patent application instead of filing several separate national or regional patent applications. The granting of patents remains under the control of the national or regional patent Offices in what is called the “national phase”.

Advantages of PCT filing

- One application One language One currency One country
- This single application has the effect of filing simultaneously in different countries (designated countries).
- It allows you to make a single international patent application that has the same effect as national applications filed in separate PCT states.
- You benefit from one application, in one language paid for in one currency.
- Use of the PCT saves effort, time, and work of the applicant seeking protection for an invention in a number of countries.

The principal objective of the PCT is, by simplification leading to more effectiveness and economy, to improve on-in the interests of the users of the patent system and the Offices which have responsibility for administering it -the previously established means of applying in several countries for patent protection for inventions.

To achieve its objective, the PCT:

- ❖ Establishes an international system which enables the filing, with a single Patent Office (the “receiving Office”), of a single application (the “international application”) in one language having effect in each of the countries party to the PCT which the applicant names (“designates”) in his application.
- ❖ Provides for the formal examination of the international application by a single Patent Office, the receiving Office.
- ❖ Subjects each international application to an international search which results in a report citing the relevant prior art (mainly published patent documents relating to previous inventions) which may have to be taken into account in deciding whether the invention is patentable.
- ❖ Provides for centralized international publication of international applications with the related international search reports, as well as their communication to the designated Offices.
- ❖ Provides an option for an international preliminary examination of the international application, which gives the applicant and subsequently the Offices that have to decide whether or not to grant a patent, a report containing an opinion as to whether the claimed invention meets certain international criteria for patentability.
- ❖ Further main objectives of the PCT are to facilitate and accelerate access by industry and other interested sectors to technical information related to inventions and to assist developing countries in gaining access to technology.

Patent search & Patent Databases

A patent search, or patentability search, is a search of existing patents and other publicly-available documents (which is referred to as “prior art”) to locate the closest existing things to your invention. A patent application is scrutinized by the Patent Office by comparing the claimed

invention with the prior art, and a patent can be issued if the patent examiner is convinced that an invention is new and not an obvious combination of things in the prior art. A patent search is often the first thing that is done in the patent process. The purpose of a patent search is to determine how different an invention is from what already exists in the prior art. A patent search will not tell you if your invention infringes someone else's patent. The patent search benefits the inventor by identifying the closest prior art so that we can determine both how patentable the invention is, and also what specific parts of the invention are the most different from the prior art. A patent search can also reveal that the inventor's invention has already been made – even if the invention has never been commercially available for purchase.

Patent Databases

A database is a collection of information that is organized so that it can easily be accessed, managed, and updated. In one view, databases can be classified according to types of content: bibliographic, full-text, numeric, and images. The databases are sources of gateway to search IP data and related information. There are many websites which provide IP databases free of cost.

1. PATENTSCOPE The PATENTSCOPE database provides access to international Patent Cooperation Treaty (PCT) applications in full text format on the day of publication, as well as to patent documents of participating national and regional patent offices. The information may be searched by entering keywords, names of applicants, international patent classification and many other search criteria in multiple languages.

2. Global Design Database: Via a single, intuitive interface, the Global Design Database enables free, simultaneous searches of more than 10,490,000 industrial designs registered under the WIPO-administered Hague System and/or in participating national collections.

3. EKASWA: It is India's first patent database hosted by Technology Information and Forecasting Council (TIFAC). As a first step in this direction a Patent Facilitating Centre (PFC) was set up by Department of Science and Technology under Technology Information Forecasting and Assessment Council (TIFAC) in 1995. The patent search involves three levels. 1. A bibliographic report on patents granted/published in US, Europe, PCT and India are provided to the client. 2. Providing the abstracts of the relevant patents as requested by the client. 3. Providing full text document of the patents.

Lec. No.9-10 UPOV- Origin and history including a brief introduction to UPOV for protection of plant varieties, Protection of plant varieties under UPOV

UPOV

The International Union for the Protection of New Varieties of Plants (UPOV) is an intergovernmental organization with **headquarters in Geneva (Switzerland).**

UPOV was established by the **International Convention for the Protection of New Varieties of Plants.** The Convention was adopted **in Paris in 1961** and it was revised in 1972, 1978 and 1991.

UPOV's mission is to provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society.

The UPOV Convention provides the basis for members to encourage plant breeding by granting breeders of new plant varieties an intellectual property right: the breeder's right.

The permanent organs of the Union are the Council and the Office of the Union.

The Council has established a Consultative Committee, an Administrative and Legal Committee and a Technical Committee. In addition, it has established Technical Working Parties for: Agricultural Crops; Automation and Computer Programs; Fruit Crops; Ornamental Plants and Forest Trees; and Vegetables and has introduced a Working Group on Biochemical and Molecular Techniques and DNA-Profiling in Particular. An organigram of the UPOV bodies structure is presented under UPOV bodies.

In short, the UPOV treaties adopt a **sui generis system of protection** (that is, a system that is unique, or of its own kind) especially tailored to the needs of plant breeders. The TRIPs Agreement requires WTO Members to protect new plant varieties using patent rights, a sui generis system or

some combination thereof. Because TRIPs provides states with this flexibility and because the treaty has an uncertain relationship to the previously adopted UPOV conventions, national governments face a wide array of options in choosing the intellectual property regime applicable to plant varieties. This section of the study outlines the requirements imposed by these two treaty systems, and Part III of the study then identifies and analyses these options.

BENEFITS OF UPOV MEMBERSHIP

- Internationally accepted sui generis system.
- Protection for Breeders in other UPOV members
- Benefit from the priority date (first application)
- Co-operation in examination
- Legal and Technical guidance
- Awareness / Influence of future developments

Functions of UPOV:

- Protection of new varieties of plants by an intellectual property right.
- By codifying intellectual property for plant breeders, UPOV aims to encourage the development of new varieties of plants for the benefit of society.
- Setting up the rules & criteria for protection of variety.

The UPOV Acts

The first UPOV Act was drafted in 1961, principally by industrialized governments seeking to provide protections for plant breeders in their own and overseas markets. The UPOV was later revised in Acts adopted in 1972, 1978 and 1991.

The 1991 Act entered into force on 24 April 1998 and on that same date the 1978 Act was closed to future accessions except by a few states already in the process of adhering to it. As explained in section 1.3.1 above, countries generally give domestic effect to the UPOV Act to which they are a party in one of two ways. In "automatic incorporation" states, courts and administrative agencies directly apply and enforce the Act, although implementing legislation is often needed to authorize administrative agencies to process applications to protect new plant varieties. In "legislative incorporation" states, by contrast, the UPOV Act does not become enforceable in domestic law until the state enacts a national plant variety protection law that conforms to the Act's requirements.

1. The 1978 UPOV Act : The 1978 UPOV Act adopts most of the international IPR obligations set out in Part I above, including a definition of the applicable subject matter and protected material, eligibility requirements, exclusive rights, national treatment, reciprocity, terms of protection and exceptions and limitations to exclusive rights. It does not, however, contain any provisions on MFN treatment or enforcement.

2. The 1991 UPOV Act: The limited scope of the 1978 Act led a number of member states of the UPOV to adopt a revised Act with enhanced rights for plant breeders. The major revisions of the 1991 Act are changes in subject matter and protected material, eligibility requirements, exclusive rights, national treatment, reciprocity, terms of protection and exceptions and limitations to exclusive rights.

Comparison between UPOV 1978 Act & 1991 Act

Subject	UPOV 1978 Act	UPOV 1991 Act
Minimum scope of coverage	Increasing number of genera or species required to be protected, from five at time of accession, to 24 eight years	Increasing number of genera or species required to be protected, from 15 at time of accession, to all genera and species 10 years later (5 years for member states of earlier

	later.	UPOV Act).
Eligibility Requirements	Novelty, distinctness, uniformity and stability.	Novelty, distinctness, uniformity and stability.
Minimum exclusive rights in propagating material	Production for purposes of commercial marketing; offering for sale; marketing; repeated use for the commercial production of another variety.	Production or reproduction; conditioning for the purposes of propagation; offering for sale; selling or other marketing; exporting; importing or stocking for any of these purposes.
Minimum exclusive rights in harvested material	No such obligation, except for ornamental plants used for commercial propagating purposes.	Same acts as above if harvested material obtained through unauthorized use of propagating material and if breeder had no reasonable opportunity to exercise his or her right in relation to the propagating material.
Prohibition on dual protection with patent	Yes, for same botanical genus or species.	No.
Breeders' exemption	Mandatory. Breeders free to use protected variety to develop a new variety.	Permissive, but breeding and exploitation of new variety "essentially derived" from earlier variety require right holder's authorization.
Farmers' privilege	Implicitly allowed under the definition of minimum exclusive rights.	Allowed at the option of the member state within reasonable limits and subject to safeguarding the legitimate interests of the right holder.
Minimum term of protection	18 years for grapevines and trees; 15 years for all other plants.	25 years for grapevines and trees; 20 years for all other plants.

Criteria for Grant of variety:

A variety shall be granted protection if it is:

- new,
- distinct,
- uniform and
- stable

The grant of protection shall not be subject to any further conditions, provided the variety is designated by an acceptable denomination and the applicant complies with all the formalities and pays the required fees. The words in italics clarify that no other criteria or conditions can be used in determining whether to grant protection to a variety.

Novelty (Article 6)

To be eligible for protection, a variety must not have been sold, or otherwise disposed of, in the territory of the member of the Union concerned for more than one year prior to the application for a breeder's right, or more than four years (six years for trees or vines) in a territory other than that of the member of the Union in which the application has been filed. In the case of new members of the Union, or members extending the plant genera or species for which protection is offered, these novelty periods may be extended for varieties which have only recently been created at the time that protection becomes available.

Distinctness, Uniformity and Stability (DUS) (Articles 7, 8 and 9)

The requirements of the Convention are as follows:

Distinctness (Article 7)

A variety is deemed to be distinct if it is clearly distinguishable from any other variety whose existence is a matter of common knowledge at the time of filing of the application. A variety whose existence is a matter of common knowledge (a "variety of common knowledge") must fall within

the definition of a variety set out in Article 1(vi) of the 1991 Act of the UPOV Convention, but this does not necessarily require fulfillment of the Distinctness, Uniformity and Stability (DUS) criteria required for grant of a breeder's right under the UPOV Convention.

Uniformity (Article 8)

A variety is deemed to be uniform if, subject to the variation that may be expected from the particular features of its propagation, it is sufficiently uniform in its relevant characteristics. The uniformity requirement within the Convention has been established to ensure that the variety can be defined as far as is necessary for the purpose of protection. Thus, the criterion for uniformity does not seek absolute uniformity and takes into account the nature of the variety itself. Furthermore, it relates only to the relevant characteristics for the protection of the variety.

Stability (Article 9)

A variety is deemed to be stable if its relevant characteristics remain unchanged after repeated propagation or, in the case of a particular cycle of propagation, at the end of each such cycle. As with the uniformity requirement, the criterion for stability has been established to ensure that the identity of the variety, as the subject matter of protection, is kept throughout the period of protection. Thus, the criterion for stability relates only to the relevant characteristics of a variety.

The distinctness, uniformity and stability (DUS) criteria are often grouped together and referred to as the "technical criteria." They are most easily understood by considering the criteria together with the way in which they are examined.

Varieties Covered

In addition to the protected variety itself, the scope of the breeder's right also covers:

- (i) Varieties which are essentially derived from the protected variety, where the protected variety is not itself an essentially derived variety;
- (ii) Varieties which are not clearly distinguishable from the protected variety; and
- (iii) Varieties whose production requires the repeated use of the protected variety.

Breeder & Variety Definition by UPOV 1991 Act:

The 1991 Act of the UPOV Convention (Article 1(iv)) defines a breeder as:

- the person who bred, or discovered and developed, a variety,
- the person who is the employer of the aforementioned person or who has commissioned the latter's work, where the laws of the relevant Contracting Party so provide, or
- the successor in title of the first or second aforementioned person, as the case may be."

The UPOV Convention (Article 1(vi)) defines Variety as:

- "A plant grouping within a single botanical taxon of the lowest known rank, which grouping, irrespective of whether the conditions for the grant of a breeder's right are fully met, can be
- defined by the expression of the characteristics resulting from a given genotype or combination of genotypes,
- distinguished from any other plant grouping by the expression of at least one of the said characteristics and
- considered as a unit with regard to its suitability for being propagated unchanged;"

Breeders' exclusive rights

Under article 5 of the 1978 Act, any person seeking to engage in the following three acts, with respect to a protected variety's reproductive or vegetative propagating material, must obtain the prior authorization of the breeder: (1) production for purposes of commercial marketing, (2) the offering for sale and (3) marketing. The 1978 Act does not, however, require member states to extend these exclusive rights to harvested material or other marketed products.

Two major exceptions and limitations to exclusive rights exist under the 1978 Act: (1) a breeders' exemption and (2) a farmers' privilege. The Act also permits members to impose compulsory licences.

Breeders' exemption.: This exemption in article 5(3) precludes member states from granting to breeders of protected varieties the right to authorize or refrain from authorizing other breeders seeking to use the protected variety to create new varieties or to market those new varieties. States are permitted to grant breeders such an authorization right only if the repeated use of the protected variety is necessary for the commercial production of the new variety. According to the

International Association of Plant Breeders and the International Seed Federation, this breeders' exemption "is essential for continued progress from plant breeding."

Farmers' privilege. : The focus of the 1978 Act on commercial exploitation of protected plant varieties has been interpreted to allow the use of seeds and propagating material for noncommercial purposes without the breeder's prior authorization. In national plant variety protection laws, this implicit noncommercial exception most frequently benefits farmers who purchase the seeds of protected varieties. The scope of this so-called farmers' privilege varies widely, however. Some nations only permit farmers to plant seeds saved from prior purchases to be used on their own land holdings, while others allow them not only to replant but also to sell limited quantities of seeds for reproductive purposes, a practice often referred to as "brown bagging."

Lec.no.11-12 PPV&FR Act of India, Plant breeders rights, Registration of plant varieties under PPV&FR Act 2001.

The Protection of Plant Variety and Farmers Right Act, 2001 (PPVFR Act)

The Protection of Plant Variety and Farmers Right Act, 2001 (PPVFR Act) is an Act of the Parliament of India that was enacted to provide for the establishment of an effective system for protection of plant varieties, the rights of farmers and plant breeders, and to encourage the development and cultivation of new varieties of plants. This act received the assent of the President of India on the **30 October 2001**.

The PPV&FR Act, 2001 was enacted to grant intellectual property rights to plant breeders, researchers and farmers who have developed any new or extant plant varieties. The Intellectual Property Right granted under PPV&FR Act, 2001 is a dual right – one is for the variety and the other is for the denomination assigned to it by the breeder. The rights granted under this Act are heritable and assignable and only registration of a plant variety confers the right. The legislation recognizes the contributions of both commercial plant breeders and farmers in plant breeding activity and also provides to implement TRIPs in a way that supports the specific socio-economic interests of all the stakeholders including private, public sectors and research institutions, as well as resource-constrained farmers.

To implement the provisions of the Act the Department of Agriculture and Cooperation, Ministry of Agriculture **established the Protection of Plant Varieties and Farmers' Rights Authority on 11th November, 2005**. It is located at: NASC Complex, DPS Marg, Opp- Todapur, New Delhi-110 012.

The Chairperson is the Chief Executive of the Authority. Besides the Chairperson, the Authority has 15 members, as notified by the Government of India (GOI).

Eight of them are ex-officio members representing various Departments/Ministries, three from SAUs and the State Governments, one representative each for farmers, tribal organization, seed industry and women organization associated with agricultural activities are nominated by the Central Government. The Registrar General is the ex-officio Member Secretary of the Authority.

Objectives of the PPV & FR Act, 2001

- To establish an effective system for the protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plants.
- To recognize and protect the rights of farmers in respect of their contributions made at any time in conserving, improving and making available plant genetic resources for the development of new plant varieties.
- To accelerate agricultural development in the country, protect plant breeders' rights; stimulate investment for research and development both in public & private sector for the development new of plant varieties.
- Facilitate the growth of seed industry in the country which will ensure the availability of high quality seeds and planting material to the farmers.

General functions of the Authority

- Registration of new plant varieties, essentially derived varieties (EDV), extant varieties;
- Developing DUS (Distinctiveness, Uniformity and Stability) test guidelines for new plant species;
- Developing characterization and documentation of varieties registered
- Compulsory cataloging facilities for all variety of plants
- Documentation, indexing and cataloguing of farmers' varieties;
- Recognizing and rewarding farmers, community of farmers, particularly tribal and rural community engaged in conservation, improvement, preservation of plant genetic resources of economic plants and their wild relatives
- Maintenance of the National Register of plant Varieties and
- Maintenance of National Gene Bank

Plant variety Definition as per PPV & FR Act 2001: Variety means a plant grouping except micro-organism within a single botanical taxon of the lowest known rank, which can be (i) defined by the expression of the characteristics resulting from a given genotype of that plant grouping. (ii) distinguished from any other plant grouping by expression of at least one of the said characteristics; and (iii) considered as unit with regard to its suitability for being propagating, which remain unchanged after such propagation, and includes propagating material of such variety, extant variety, transgenic variety, farmers' variety and essentially derived variety.

Registerable plant varieties in India

New Varieties: A Variety which is not in public domain in India earlier than one year before the date of filing or outside India, in the case of trees or vines earlier than six years or in any other case earlier than four years.

Extant Variety: A Variety which is notified under Seed Act, 1966 or a variety about which there is common knowledge or a farmer's variety or any other variety which is in public domain is considered as an Extant Variety.

Farmer's Variety: A Variety which has been traditionally cultivated and evolved by the farmers in their fields or a variety which is a wild relative or land race of a variety about which farmers possess common knowledge.

Essentially Derived Variety (EDV): i) Predominantly derived from such initial variety, or from a variety that itself is predominantly derived from such initial variety, while retaining the expression of the essential characteristics that result from the genotype or combination of genotypes of such initial variety. ii) Is clearly distinguishable from such initial variety; and iii) Conforms to such initial variety in the expression of the essential characteristics

Criteria For Registration of New Variety:

Refer to previous chapter i.e. Criteria for Grant of variety.

Who can apply for the registration of a plant variety?

- any person claiming to be the breeder of the variety;
- any successor of the breeder of the variety
- any person being the Assignee or the breeder of the variety in respect of the right to make such application;
- any farmer or group of farmers or community of farmers claiming to be the breeder of the variety;
- any person authorized to make application on behalf of farmers;
- any university or publicly funded agricultural institution claiming to be the breeder of the variety.

Prerequisites for filing an application form for registration of plant variety

- Denomination assigned to such variety
- An affidavit that variety does not contain any gene or gene sequence involving terminator technology

- Complete passport data of parental lines with its geographical location in India and all such information relating to the contribution if any, of any farmer(s) village, community, institution etc in breeding and developing the variety
- Characteristics of variety with description of Novelty, Distinctiveness, Uniformity and Stability
- A declaration that the genetic material used for breeding of such variety has been lawfully acquired
- A breeder or other person making application for registration shall disclose the use of genetic material conserved by any tribal or rural families for improvement of such variety
- Deposition of seeds is necessary for DUS test conducted by PPV & FR authority. The applicant needs to deposit the fixed amount of seed or propagating material with prescribed germination percentage and physical purity along with the seed quality test report to the authority.

Duration of protection for a registered plant variety

Trees and Vines: 18 Years ,

Other crops: 15 Years

Extant Varieties: 15 Years from the date of notification of that variety by the Central Government under Seed Act, 1966. **Exemptions provided under the act**

Farmers Exemption: Farmer shall be entitled to produce, save, use, sow, re-sow, exchange, share or sell his farm produce including seed of a variety protected under this Act.

Researchers Exemption: Researchers are allowed to (i) use the registered variety for conducting experiment (ii) use the variety as an initial source of variety for the purpose of creating other varieties.

Process for registration of plant variety:

Plant Variety Protection (PVP) Registration Process

Reception

To receive application and allot PVP number. Coupon to be issued to applicant. Only completed application with all enclosures, registration fee (non-refundable), with the requisite quantity of seeds in officially sealed packing will be accepted. Vegetatively propagated planting material has to be submitted to respective crop specific DUS centre as per details available on website within 10 days of submitting the application with an exception in case of perennial crops as listed on the website where testing will be on site and no propagating material to be enclosed

PVP application number

Updating of records, PVP application number and printing of acknowledgement

Acknowledgement

- For application received by hand at HQ/branch offices before noon, acknowledgement can be collected between 5:00 to 5:30pm in exchange of coupon
- For application received in the afternoon, acknowledgement can be collected on next working day between 10:00 to 10:30am

For applications received through post/courier acknowledgement shall be posted latest by next working day by dispatch section

Application transferred to concerned Registrar

Examination of application

Queries raised by Registrar to be issued within 7 days to the applicant for compliance within 15 days. Within next 7 days, the Registrar shall examine the reply and if acceptable, ask for depositing DUS testing fee. If fee not received in 15 days, application with seed shall be returned to the applicant

Allotment of Registration (REG) number

If the application is accepted, the REG number of the variety shall be informed to the applicant & published in PVJ. REG number shall be the reference number of the variety

Dispatch of seed to DUS centre

Registrar to dispatch seed (in case of vegetatively propagated planting material, specific instructions) to concerned DUS centre at least 15 days before the sowing season with the instructions on reference variety/ies based on database

DUS Testing

DUS centres will test the candidate variety as per DUS guidelines. If, at the end of 1st season, it is noted that an essential trait is expressing significant distinctiveness between the locations, then Registrar/nominee along with a representative of the applicant has to visit the sites for consensus decisions during 2nd season

DUS Testing for EDVs

For testing of EDV hybrid/variety DUS characterization is done along with original hybrid/variety (initial hybrid/variety) and in case of hybrid EDV, essentially derived parent(s) and original parent(s) for one year at two locations.

Data analysis

After DUS testing, tabulated and certified pooled data from the centres will be submitted to Registry by the PI within 4 months after harvest. Registrars to take final decision within next 15 working days on the candidate variety

Pre-grant opposition

Published in PVJ for inviting pre-grant opposition. If no pre-grant opposition received within stipulated time as per Section 21 (2)) checklist will be prepared by Registry within 2 weeks and Registration Certificate will be issued to the applicant

Approved on 28.11.2018

Fee Structure

Type of variety	Fees for Registration	Annual Fee
Essentially Derived Varieties	Individual Rs. 7000/- Educational Rs. 10000/- Commercial Rs. 50000/-	-----
Extant variety notified under section 5 of Seeds Act, 1966	Rs. 2000/-	Rs. 2000/- only.
New Variety	Individual Rs. 7000/- Educational Rs. 10000/- Commercial Rs. 50000/-	Rs. 2000/- plus 0.2 per cent of the sales value of the seeds of the registered variety during the previous year plus 1 percent of royalty, if any, received during the previous year from the sale proceed of seeds of a registered variety.
Extant variety about which there is common knowledge	Individual Rs. 7000/- Educational Rs. 10000/- Commercial Rs. 50000/-	Rs. 2000/- plus 0.1 per cent of the sales value of the seeds of the registered variety during the previous year plus 0.5 percent of royalty, if any, received during the previous year from the sale proceed of seeds of a registered variety.
Farmers' Variety	No fee	Rs. 10/- only

DUS Test Centers

Authority has 122 DUS test Centers for different crops with a mandate for maintaining and multiplication of reference collection, example varieties and generation of database for DUS descriptors as per DUS guidelines of respective crops. The list of DUS test Centers is available on the official website of the Authority.

Plant Variety Journal of India

Authority publishes its official journal "Plant Varieties Journal of India" (PVJI) as a monthly bilingual (Hindi & English) publication and made available to public on the first working day of each month on its official website. This journal has the equivalent status of a gazette under the Regulations, 2006. The contents of Journal includes official and public notices, passport data of plant varieties, DUS test guidelines of crop species, details of certificate of registration and other related matters.

National Register of Plant Varieties

National Register of Plant Varieties has been kept at the head office of the Registry, containing the names of all the registered plant varieties with the names and addresses of their respective breeders, the rights of such breeders in respect of the registered varieties, the particulars of the denomination of each registered variety, its seed or other propagating material along with specification of salient features thereof and such other matters as may be prescribed.

National Gene Bank

Authority has established National Gene Bank to store the seed material including parental lines submitted by the breeders of the registered varieties. The seed lot is stored under low temperature conditions at 5° C for the entire registration period, and if necessary after few years of storage in the National Gene Bank, the seed lot will be rejuvenated and replenished at the cost of the applicant. The seed stored in the National Gene Bank will be used for dispute settlement or when an exigency arises for invoking compulsory licensing provision. Such a seed deposition in the National Gene Bank would dissuade market malpractices or violations as the sample in custody can be drawn to verify the facts. When the period of registration granted lapses, the material automatically moves to public domain.

National Gene Fund

A National Gene Fund has been established by the Authority to receive the contributions from:

The benefit sharing received in the prescribed manner from the breeder of a variety or an essentially derived variety registered under the Act, or the propagating material of such variety or essentially derived variety, as the case may be;
The annual fee payable to the Authority by way of royalty;
The compensation deposited by breeders and
The contribution from any National and International organizations and other sources.

Plant Breeders' Rights

The Plant Breeders' Rights programme was first established in 1987 under the Plant Variety Rights Act (PVRA), which was succeeded by the current- Plant Breeders' Rights Act 1994. (PBRA). Plant breeders' rights (PBR), also known as plant variety rights (PVR), are intellectual property rights granted to the breeder of a new variety of plant. Plant Breeders Rights are granted to novel plant varieties that are distinctive, uniform, and stable (e.g., cultivars breed true-to-type for desired traits). The legal protection of a new plant variety is granted to the breeder or his successor. The effect of PBR is that prior authorization is required before the material can be used for commercial purposes.

Advantages of plant breeders' rights:

There are several advantages of plant breeders' rights which are listed below:

- i. Breeders get benefit of their variety.
- ii. PBR helps in faster development of seed industry.
- iii. PBR leads to improvement in quality because of competition.
- iv. PBR is useful in procurement of good material on payment basis.
- v. PBR helps in enrichment of genetic resources.

Disadvantages of plant breeders' rights:

There are some disadvantages of plant breeders' rights which are listed below:

- i. It will promote monopoly,
- ii. It will encourage unhealthy practices.
- iii. It may lead to increase in prices.
- iv. There will be reduction in genetic variability.
- v. There will be compulsion to purchase fresh seed every year.

Registration Procedure

The registration consists of following steps:

- (i) Filing application in the prescribed form,
- (ii) Payment of prescribed processing fee along with application. The registration fee varies from country to country. In USA, after registration annual renewal fee (300 Dollars) is payable.
- (iii) Examination of the application by the experts,
- (iv) Issue of protection certificate, if application is found to meet the desired requirements, and
- (v) Normally the registration takes about 2.5 years for most of the species takes 2.5 years.

Duration for protection of Plant Breeders' Rights:

The duration of protection for different plant species is as follows:

- (i) For Trees and Vines: Initially for nine years and maximum for 18 years.
- (ii) For extant varieties: Initially six years and maximum for 15 years from the date registration of the variety.
- (iii) In other cases: Initially six years and maximum for 15 years from the date registration of the variety.

Thus breeders' rights allow plant breeders to get benefit of their variety for a limited period. When the PER period is over, the variety reverts to the public domain and is available to everybody. The limited duration of Plant Breeders' Rights ensure a balance between private and public interest.

What is the Validity of PBRs?

Ans. The protection of the Plant Breeders' Rights is valid only in the country where it has been registered. The protection in other countries can be obtained by filling separate application in each country.

What is the Matters Covered by Plant Breeders' Rights?

Ans. The protection right can be granted for varieties of all botanical genera and species. The variety should have a designation (name) as per the rule of International Code of Nomenclature.

What are the Requirements for protection of Plant Breeders' Rights?

Ans. There are four basic requirements for protection of a variety under PBR, viz.: (i) Novelty, (ii) Distinctiveness, (iii) Uniformity, and (iv) Stability.

Breeders' Exemptions:

The legal rights that are provided to plant breeders to use protected material for further research refer to breeders' exemptions. Breeders' exemptions are also called research exemptions or breeders' privilege. The UPOV Act 1978 provides Breeders' exemptions. However, the Act 1991 has curtailed & breeders' Exemptions.

Farmers' Exemptions: The legal rights that are provided to farmers to save, use, exchange, share or sell his farm produce of a protected variety are known as farmers' exemptions. Farmers' exemptions are also called Farmers' Rights or Farmers privilege. Here the sale is restricted to non-commercial sale. The UPOV Act 1978 provided farmers Exemptions, however, these exemptions were curtailed by UPOV Act 1991. Because of these reasons, UPOV Act is not accepted by many countries.

Rights provided to the breeder of a new variety:

The Plant Breeders' Rights Act provides plant breeders the exclusive right to produce and sell new plant varieties which they have developed. In other words, it provides exclusive rights to the breeder for commercial production and marketing of his variety.

The important Plant Breeders' Rights are as follows:

(i) Rights for Commercial Seed Production:

PBR provide legal right to the breeder of a variety for large scale seed production. This he can do either on his own farm or on the farms of authorized farmers on payment basis.

(ii) Rights for Marketing:

The breeder or owner of a variety has exclusive rights to regulate marketing of his variety.

(iii) Rights to Export and Import:

The breeder or owner of a variety has full rights to regulate export and import of his or her variety.

(iv) Rights of Authorization:

The breeder or owner of a protected variety has rights to authorize other interested persons for commercial production, and marketing, export and import of his variety. However, prior authorization of the breeder or owner of a variety is required for such purpose.

(v) Rights to Prevent Infringement:

The breeder or owner of a variety has rights to prevent others from unauthorized commercial production and marketing of his variety.

Infringement of plant breeders' rights:

Unauthorized production and marketing of a registered variety by other person, amounts to infringement. The owner has the right to take legal action against the infringer and claim damages. The PBR Authority may initiate legal action against a person who is involved in the infringement of a protected plant variety. The Authority can recover both damages and profits from such person. The Plant Breeders' Act (PBRA) provides for heavy penalties against infringement of the breeders' right. In USA it 55,00 Dollars for individuals and 275000 Dollars for companies.

Lec.no.13-14 Researcher and farmers rights, Traditional knowledge-meaning and rights of TK holders.

Researchers' Rights

Researcher can use any of the registered variety under the Act for conducting experiment or research. This includes the use of a variety as an initial source of variety for the purpose of developing another variety but repeated use needs prior permission of the registered breeder.

Farmers rights

India having ratified the Agreement on Trade Related Aspects of the Intellectual Property Rights has to make provision for giving effect to Agreement. To give effect to the aforesaid objectives the Protection of Plant Varieties and Farmers' Rights Act, 2001 has been enacted in India. For the purposes of this Act, Protection of Plant Varieties and Farmers' Rights Authority has been established and is located New Delhi.

This Act has been passed in order to provide for the establishment of an effective system for protection of plant varieties, the rights of farmers and plant breeders, and to encourage the development of new varieties of plants. The Act helps to stimulate investment for research and development to produce new plant varieties. Such protection is also likely to facilitate the growth of the seed industry that will ensure the availability of high quality seeds and planting material to the farmers.

- **The salient features of Farmers Rights as described in PPV&FR Act, 2001 are as followings:** A farmer who has bred or developed a new variety shall be entitled for registration and other protection in like manner as a breeder of a variety under this Act.
- The farmer's variety shall be entitled for registration if the application contains declarations as specified in clause (h) of sub- section 18.
- A farmer who is engaged in the conservation of genetic resources of land races and wild relatives of economic plants and their improvement through selection and preservation shall be entitled in the prescribes manner for recognition and reward from the Gene Fund, provided that material so selected and preserved has been used as donors of genes in varieties registrable under this Act.
- A farmer shall be deemed to be entitled to save, use, sow, resow, exchange, share or sell his farm produce including seed of a variety protected under this Act in the same manner as he was entitled before the coming in the force this Act. This is very important and unique part of the Indian legislation for PVP.
- The Act does not permit the farmers to sell branded seed of a variety protected under this Act.

Different Kinds of Farmers Rights under PPV&FR Act-

1. Right on Seed :

- This right includes the right to save the seed from one's crop and use the saved seed for sowing, exchanging, sharing or selling to other farmers. It is fundamental to the conservation role performed by farmers. The PPVFR Act, therefore, allows this right on seed to all varieties, including varieties registered under this Act.
- Farmers are not allowed to sell the branded seed of variety protected under this Act. Branded seed means any seed put in a package or any other container and labeled in a manner indicating that such seed is a variety protected under this PPV&FR Act.
- To further safeguard this right on the seeds of registered varieties, the Act prohibits use of technologies like the terminator gene technology, which destroys the germination capability of saved seeds.

2.Farmers' Right to Register Traditional Varieties

- The PPVFR Act allows the registration of traditional varieties or farmers' varieties. Registration of the variety grants PBR on the variety, which allows exclusive legal right to the PBR-holding farmers to produce and market its seed.
- Farmers are awarded PBR by the Act on their recognition as breeders.
- In the case of registration of a traditional variety, it is important to involve all communities associated with its conservation, if there is no clear evidence to establish an exclusive role for the origin of the said variety. Similarly, when a variety developed by a farmer is registered, it is important to recognize spousal contribution under joint ownership.
- Farmers need not have to pay any fee either to register their varieties or to renew these registrations. This is a major incentive to the innovative breeders among farmers.
- On the contrary, professional breeders and public research institutions are required to pay separately Rs.5,000 to 10,000 as registration and renewal fees.

3.Farmers' Right for Reward and Recognition

- In recognition of the important role farmers have been playing for the conservation of varietal wealth of crop plants, the PPVFR Act has a provision to reward and recognize individual farmers or farming and tribal communities for such contribution.

- According to the Act, a National Gene Fund is to be created to facilitate reward and recognition to eligible individual farmers and communities.
- This is provided as an incentive to encourage conservation undertaken by farming and tribal communities. Farmers conserving traditional varieties and wild species of crop plants are deemed eligible to receive reward and recognition.

4. Farmers' Right for Benefit Sharing

- The Act provides for equitable sharing of the benefit earned from the new variety with farming or tribal communities that had contributed varieties used as parents.
- The benefit share may be disbursed from the National Gene Fund to the eligible individual, community or institution. Therefore for claiming eligible benefit share, the farming communities should have (i) timely information on the varieties being registered under the Act. (ii) timely understanding on the notification on such varieties inviting claims for benefit share, and (iii) capability to understand the disclosed characteristics of the new variety those of parental varieties.
- Authority publishes the registered variety, so that claim may be initiated for benefit sharing. Any farmer or group of farmers or Government firm or Non-governmental firm can submit their claim for benefit sharing.
- It has to be proved that the farmer or the organization have the enough contribution to develop the base material of the registered varieties.

5. Farmers' Right to get Compensation for the Loss suffered from the Registered Variety

- The primary purpose of registration of a plant variety under this Act is to establish exclusive commercial right on the variety.
- This Act has a provision to check unfair marketing practices by breeders and their seed sellers.
- The Act requires that the seed be sold with a declaration on its agronomic performance and the cultivation conditions ensuring this performance.
- At the time of sale of seed/planting materials, the breeder has to disclose the expected performance of a variety under a given conditions.
- If such seed/propagating material fails to provide such performance under such given conditions, the farmer or group of farmers or organization of farmers may claim compensation in prescribed manner before the Protection of Plant Variety and Farmers' Right Authority. The Authority will direct the breeder of the variety to pay the authority to the concerned party.

6. Farmers' Right to receive Compensation for Undisclosed use of Traditional Varieties

- If the breeder uses Farmers' Variety as source material to develop new variety, he has to share his royalty with the community.
- Or, in case where it is established that the breeder has not disclosed the source of varieties belong to a particular community, compensation can be granted through the National Gene Fund.

7. Farmers' Right for the Seeds of Registered Varieties

- One of the objectives of the Act is to promote the availability of high quality seed and planting material to farmers for accelerated.
- The Act tries to achieve this objective by ensuring adequate availability of seeds of registered varieties to farmers at reasonable cost.
- According to the Act, when the PBR-holder does not satisfy this requirement three years after registration of the variety, farmers have the right to take the matter of non-availability of seed, its poor supply, or its high price to the PPVFR-Authority.
- On receiving such complaints and on its verification, the PVP Authority may take remedial action. it may be enforcement of compulsory licensing. Compulsory licensing revokes the exclusive right on commercial production and marketing of seed granted to the PBR- holder and transfer this right to third parties determined by the Authority. This revoke of exclusive right is done for a period decided by the Authority.
- The third parties, who are given right to produce and market the seed, are required to meet the demands and supply seed at reasonable prices.

8. Farmers' Right for Receiving Free Services

- Considering the poor economic capability of farmers and with a view that this economic weakness shall not be a hurdle for accessing farmers' rights, the PPVFR Act totally exempts farmers from paying any fees.
- This exemption is applicable to individual, group or community of farmers. The exemption includes the fees required to be paid to the Registrar of Plant Varieties for registration of farmers' varieties, for conducting tests on them, for the renewal of registrations and the fees prescribed for opposition, benefit claim.
- This exemption also covers fees on all legal proceedings at the Intellectual Property Appellate Board (IPAB) or any Court of law. • This exemption, however, does not include fee on lawyers privately hired by farmers to represent them at the Tribunal or Appellate Board or Courts.

9. Farmers' Right for Protection Against Innocent Infringement

- About 75% of Indian population involves in agriculture. The literacy percentage of rural population is very low. Considering the status of educational status of the farmers, the Section 42 of the Act provides safeguard against innocent infringement.
- The farmer who unknowingly violates the Breeders' Rights shall not be punished if he can prove that he is innocent about the Act.
- This type of protection is applicable for the first offence. The farmer is punishable for the subsequent infringements.

Traditional Knowledge

Traditional knowledge or "TK" may be considered as: knowledge, know how, skills, innovations or practices; that are passed between generations; in a traditional context; and that form part of the traditional lifestyle of indigenous and local communities who act as their guardian or custodian. It can be, for example, agricultural, environmental or medicinal knowledge, or knowledge associated with genetic resources. -Wipo

The term "traditional knowledge"⁹ refers to knowledge, possessed by indigenous people, in one or more societies and in one or more forms, including, but not limited to, art, dance and music, medicines and folk remedies,¹⁰ folk culture, biodiversity,¹¹ knowledge and protection of plant varieties, handicrafts, designs, literature.

Examples include, knowledge about traditional medicines; traditional hunting or fishing techniques; knowledge about animal migration patterns; knowledge about water management, Agricultural Practices.

The Indigenous Technical Knowledge (ITKs) are gained from experience over the years / generations and adopted in the local culture and environment. ITKs are very important in all sphere of life hence, its protection is also necessary. Otherwise, the valuable knowledge of mankind will be gradually lost. The draft intellectual property guidelines-2004 of the World Intellectual Property Organization (WIPO) emphasize the contracting parties shall provide protection of the TK and sharing of benefits with the holders of TK. So far, no specific legislation was enacted in developed countries for the protection of TK. The Biological Diversity Act of India has provisions for claiming benefit sharing for the traditional knowledge associated with plant genetic resources. The ICAR and CSIR have initiated steps for documentation of TK. These data/ information can be used as valid evidence for 'prior art' while opposing the patent filed by pirating TK. This kind of protection of TK is called defensive protection. Alternatively, a passive protection right of TK can be created which empower the TK holder to protect and promote their traditional knowledge.

The term traditional cultural expression refers to the work of indigenous people and the traditional communities, but the term has not been precisely defined. The term Traditional Cultural Expressions (TCEs) in the international community is also referred to as "folklore" and some nations prefer using the term "folklore" in their national copyright laws. The term "folklore" means the traditional beliefs, myths, tales, and practices of a group of people, transmitted orally. The term "folklore" was coined by William Thomas in the year 1846. Mr. Thomas meant to include manners, customs, observations, superstitions, ballads, proverbs and so on, in the term 'folklore', which he summarized as the lore of the people.

Tk is in two forms, tangible and intangible. These include: Verbal expressions or symbols (stories, epics, legends, tales, riddles, etc.)

Musical expressions (songs, instrumental music)

Expressions by action (dance form, play, ritual, etc.)

Tangible expressions (drawings, designs, paintings, body art, carvings, sculptures, pottery, terracotta, warli painting, mosaic, woodwork, rockwork, metal work, jewellery, basket, needlework, glassware, textiles, carpets, etc.)

Intangible expressions reflecting traditional thought forms : Architectural forms¹

Characteristics of TK

Following are the characteristics of Traditional Knowledge:

- They are handed down from one generation to another, either orally or by imitation;
- They reflect a community's cultural and social identity;
- They consist of characteristic elements of a community's heritage;
- They are made by 'authors unknown and/or by individuals communally recognized as having the right, responsibility or permission to do so;
- They are often not created for commercial purposes, but as vehicles for religious and cultural expressions; and
- They are constantly developing and being recreated within the community.

Types or Areas covered by TK

1.Agriculture 2.Horticulture 3.Forestry 4.Medicines 5. Fisheries 6.Human Culture.

The Traditional Knowledge Digital Library project (TKDL), an initiative of several Indian Government agencies, proposes to document the disclosed traditional medicinal knowledge available in public domain by sifting and collating information on TK from the existing disclosed literature covering Ayurveda. The TKDL compiles the information in digitized format in five international languages which are English, German, French, Japanese and Spanish. An inter-disciplinary team of Ayurveda experts, a patent examiner, information technology experts, scientists and technical officers have worked for one and a half years for creating the TKDL of Ayurveda. TKDL seeks to give recognition and legitimacy to the existing TK and enable protection of such information from getting patented.

Bio-piracy of Traditional Knowledge: The use of intellectual property systems to legitimize the exclusive ownership and control over biological resources and biological products and processes that have been used over centuries in non industrialized culture can be defined as "bio-piracy". In other words bio-piracy means misappropriation of traditional knowledge with an intention to gain patent protection over that knowledge. Devolution, encroachment, the bio prospecting rush, lack of appropriate legal systems and a clash of systems all make traditional knowledge highly vulnerable to bio-piracy. Traditional knowledge is associated with biological resources which in turn is a component of biodiversity. The clues/ leads provided by TK can be utilized to develop best practices/processes/ system for mankind without the investment of huge amount of money for research and results validation through clinical trials in labs, above all such knowledge saves time. In the recent past, several cases of bio-piracy of TK from India have been reported. The following are the most prominent cases with regards to misappropriation of TK from India.

Turmeric & Neem, Basmati patent claimed by USA, Colgate Tooth Powder, Jeevani Plant.etc.

Rights of TK Holders

There are two forms of intellectual property related protection systems with regards to traditional knowledge. They are:

1.Positive protection: i.e. giving traditional knowledge holders the right to take action or seek remedies against any misuse of traditional knowledge. Any system of positive protection of traditional knowledge must provide for:

- Recognition of value and promotion of respect for traditional knowledge systems.
- Responsiveness to the actual needs of traditional knowledge holders.
- Repression of misappropriation of traditional knowledge and other unfair and inequitable uses.
- Protection of tradition based creativity and innovation.
- Support of traditional knowledge systems and empowerment of traditional knowledge holders.
- Promotion of equitable benefit sharing from use of traditional knowledge.
- Promotion of the use of traditional knowledge for a bottom up approach to development.

2. Defensive protection, i.e. safeguarding against illegitimate intellectual property rights acquired by third parties over traditional knowledge. Any system of defensive protection of traditional knowledge must provide for:

- The criteria defining relevant prior art apply to the traditional knowledge.
- A mechanism to ensure that the traditional knowledge constituting prior art is available and accessible to search authorities.
- It is suggested that these two approaches should be undertaken in a complementary way as a comprehensive approach to protection of traditional knowledge is unlikely to rely totally on any one form.

Challenges for TK holders:

- Rejection of tradition by new generation and encroachment of modern lifestyles.
- Dilution of traditional knowledge and practices through acculturation and diffusion.
- "Modern" science may deem traditional knowledge inferior.
- Commercial exploitation by "others", e.g. bio-prospecting, use of indigenous designs.

Lec.no.15-16 Convention on Biological Diversity, International treaty on plant genetic resources for food and agriculture (ITPGRFA). Indian Biological diversity Act,2002 and its salient features, access and benefit sharing.

Convention on Biological Diversity

"Biological diversity" means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

The Ad Hoc Working Group (Intergovernmental Negotiating Committee) established to prepare an international legal instrument for the conservation and sustainable use of biological diversity. Its work culminated on 22 May 1992 with the Nairobi Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity. The Convention was opened for signature on 5 June 1992 at the United Nations Conference on Environment and Development (the Rio "Earth Summit"). It remained open for signature until 4 June 1993, by which time it had received 168 signatures. The Convention entered into force on 29 December 1993, which was 90 days after the 30th ratification. The first session of the Conference of the Parties was scheduled for 28 November – 9 December 1994 in the Bahamas.

The Convention on Biological Diversity was inspired by the world community's growing commitment to sustainable development. It represents a dramatic step forward in the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the use of genetic resources.

Goals of CBD:

- Conservation of biodiversity;
- Sustainable use of the components of biodiversity; and
- Fair and equitable sharing of benefits arising from the use of genetic resources.

Under the CBD governments undertake to conserve and sustainably use biodiversity. They are required to develop national strategies and action plans, and to integrate these into broader strategies for the environment and development. This is particularly important in sectors such as agriculture, fisheries, energy, forestry, transportation and urban planning. Other treaty commitments include:

- Identifying and monitoring the components of biodiversity that need to be conserved and used sustainably;
- Establishing protected areas to conserve biodiversity while promoting environmentally sound development around these areas;
- Rehabilitating and restoring degraded ecosystems and promoting the recovery of threatened species in collaboration with local residents;
- Respecting, preserving and maintaining traditional knowledge of the sustainable use of biodiversity with the involvement of indigenous peoples and local communities;
- Preventing the introduction of, controlling, and eradicating alien species that could threaten ecosystems, habitats or species;

- Controlling the risks posed by organisms modified by biotechnology;
- Promoting public participation, particularly when it comes to assessing the environmental impacts of development projects that threaten biodiversity;
- Educating people and raising awareness about the importance of biodiversity and the need to conserve it; and
- Reporting on how each country is meeting its biodiversity goals.

International treaty on plant genetic resources for food and agriculture (ITPGRFA)

The International Treaty on Plant Genetic Resources for Food and Agriculture (IT PGRFA), popularly known as the International Seed Treaty, is a comprehensive international agreement in harmony with the Convention on Biological Diversity, which aims at guaranteeing food security through the conservation, exchange and sustainable use of the world's plant genetic resources for food and agriculture (PGRFA), as well as the fair and equitable benefit sharing arising from its use. It also recognizes farmers' rights, subject to national laws to: a) the protection of traditional knowledge relevant to plant genetic resources for food and agriculture; b) the right to equitably participate in sharing benefits arising from the utilization of plant genetic resources for food and agriculture; and c) the right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture. The Treaty establishes the Multilateral System of Access and Benefit-sharing to facilitate plant germplasm exchanges and benefit sharing through Standard Material Transfer Agreement (SMTA).

The ITPGRFA was an outcome of a lengthy negotiation process of the 31st Session of the Conference of the Food and Agricultural Organization of the United Nations (FAO) in **3rd November of 2001**. The ITPGRFA finally entered into force in 2004 after 13 countries deposited their instruments of ratification with the Director-General of the FAO. As of 2014, there are now 131 organizations that are party to the ITPGRFA (130 countries and 1 intergovernmental organization, the European Union).

The Treaty aims at:

1. recognizing the enormous contribution of farmers to the diversity of crops that feed the world;
2. establishing a global system to provide farmers, plant breeders and scientists with access to plant genetic materials;
3. ensuring that recipients share benefits they derive from the use of these genetic materials with the countries where they have been originated.

Main provisions of Treaty:

Multilateral system

The Treaty's truly innovative solution to access and benefit sharing, the Multilateral System, puts 64 of our most important crops – crops that together account for 80 percent of the food we derive from plants – into an easily accessible global pool of genetic resources that is freely available to potential users in the Treaty's ratifying nations for some uses.

Access and benefit sharing

The Treaty facilitates access to the genetic materials of the 64 crops in the Multilateral System for research, breeding and training for food and agriculture. Those who access the materials must be from the Treaty's ratifying nations and they must agree to use the materials totally for research, breeding and training for food and agriculture. The Treaty prevents the recipients of genetic resources from claiming intellectual property rights over those resources in the form in which they received them, and ensures that access to genetic resources already protected by international property rights is consistent with international and national laws.

Those who access genetic materials through the Multilateral System agree to share any benefits from their use through four benefit-sharing mechanisms established by the Treaty.

Farmers' rights

The Treaty recognizes the enormous contribution farmers have made to the ongoing development of the world's wealth of plant genetic resources. It calls for protecting the traditional knowledge of these farmers, increasing their participation in national decision-making processes and ensuring that they share in the benefits from the use of these resources

Sustainable use

Most of the world's food comes from four main crops – rice, wheat, maize and potatoes. However, local crops, not among the main four, are a major food source for hundreds of millions of people and have potential to provide nutrition to countless others. The Treaty helps maximize the use and breeding of all crops and promotes development and maintenance of diverse farming systems.

Indian Biological Diversity Act, 2002

India is rich in biodiversity and associated traditional and contemporary knowledge system relating thereto. India is a party to the UN Convention on Biological Diversity signed at Rio de Janeiro on 5th June, 1992 and the said convention came into force on 29th December 1993. To give effect to the Convention on Biological Diversity and too attain the objectives of the convention, the Biological Diversity Act was enacted by the Parliament in the year 2002. Enforcement- 15th April 2004

Objectives of the BD Act, 2002:

- To provide for conservation of biological diversity;
- To provide for sustainable use of its components; and
- To provide for fair and equitable sharing of the benefits arising out of the use of biological resources;
- To regulate access of genetic resources.

Salient Features:

- To involve local self-government for implementation of schemes made by government.
- To involve indigenous people at every stage for protection and improvement of environment.
- There is also provision for protection of traditional rights since the knowledge of local people regarding biodiversity should be protected.
- There is provision for conservation and development of those areas which are important from biological diversity point of view.

Authorities under the Act

a. National Biodiversity Authority: The Act has constituted a National Biodiversity Authority at Chennai, consisting of 15 members and 1 Chairman who shall be an eminent person in the field of conservation and sustainable use of biodiversity. The Board shall advise the Central Govt. in matters relating to conservation of biodiversity, its sustainable use and equitable share of benefits. It shall also advise the State Govt. in the selection of the areas of biodiversity importance.

b. State Biodiversity Board: The State Govt. may also establish State Biodiversity Boards which shall be body corporate. The functions of State Boards shall be to advise the State Govt. in matters relating to conservation of biodiversity, its sustainable use and equitable share of benefits; regulating by granting of approvals or requests for commercial utilization or bio survey or bio utilization of any biological resources by Indians; other necessary functions to carry out the provisions of the Act. The State Govt. are also authorized to notify the areas of biodiversity importance as biodiversity heritage site.

c. Biodiversity Management Committee: Every local body shall constitute a 'Biodiversity Management Committee' within its area for the conservation, sustainable use and documentation of biological diversity including preservation of habitat, conservation of landraces, folk varieties and cultivators etc. the State Govt. shall also provide local biodiversity funds.

Access and Benefit sharing

Access and benefit-sharing(ABS) refers to the way in which genetic resources may be accessed, and how users and providers reach agreement on the fair and equitable sharing of the benefits that might result from their use.

Access of biological resources occurring in or obtained from India and/or associated traditional knowledge for research, commercial utilization, bio-survey or bio-utilization for foreigners requires following criteria:

- Non-Indian,
- NRI,
- Foreign entity or Indian entity having non-Indian participation in share capital or management.

Benefit sharing

The National Biodiversity Authority shall while granting approvals under section 19 or section 20 ensure that the terms and conditions subject to which approval is granted secures equitable sharing of benefits arising out of the use of accessed biological resources, their by-products, innovations and practices associated with their use and applications and knowledge relating thereto in accordance with mutually agreed terms and conditions between the person applying for such approval, local bodies concerned and the benefit claimers.

The National Biodiversity Authority shall, subject to any regulations made in this behalf, determine the benefit sharing which shall be given effect in all or any of the following manner, namely:—

- ✓ Grant of joint ownership of intellectual property rights to the National Biodiversity Authority, or where benefit claimers are identified, to such benefit claimers;
- ✓ Transfer of technology;
- ✓ Location of production, research and development units in such areas which will facilitate better living standards to the benefit claimers;
- ✓ Association of Indian scientists, benefit claimers and the local people with research and development in biological resources and bio-survey and bio-utilisation;
- ✓ Setting up of venture capital fund for aiding the cause of benefit claimers;
- ✓ Payment of monetary compensation and other non-monetary benefits to the benefit claimers as the National Biodiversity Authority may deem fit.
- ✓ The obtained amount of money ordered by benefit sharing was directly deposited in National Biodiversity Fund.

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