



“शिक्षा मानव को बन्धनों से मुक्त करती है और आज के युग में तो यह लोकतंत्र की भावना का आधार भी है। जन्म तथा अन्य कारणों से उत्पन्न जाति एवं वर्गगत विषमताओं को दूर करते हुए मनुष्य को इन सबसे ऊपर उठाती है।”

— इन्दिरा गांधी

“Education is a liberating force, and in our age it is also a democratising force, cutting across the barriers of caste and class, smoothing out inequalities imposed by birth and other circumstances.”

— Indira Gandhi



Indira Gandhi
National Open University
School of Law

MIP-101
General Introductions
to IP Rights

Block

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BLOCK 2 PHILOSOPHY OF IPR

This Block consists of four units. As we understand that the right to property is recognized and protected under international and national level. It is noteworthy that the history and evolution of Industrial Rights is of global prospective.

Unit 4 of this block deals with the history and evolution of IPRs. In this unit you will also study the legal aspects of Intellectual Property Rights, harmonization of Intellectual Property Rights, trade related aspects of IPR under World Trade Organization etc.

Unit 5 of this Block extensively covers topics like the different theories of Intellectual property rights like the Utilitarian theory, Labour theory, Social Planning theory, Economic incentive benefit theory, Consideration theory, Personality theory, Ecological theory, Unjust enrichment theory, Theory of distributive justice. The unit also covers the limitations and drawbacks of this theories.

Unit 6 of this course explains how Intellectual Property can be used as a tool for economic development. This Unit covers topics like Intellectual property and International Economy, Intellectual Properties and Economic growth, wherein it deals with theories like Classical theories, Endogenous growth theory, Exogenous growth theory, Schumpeter's growth theory, New endogenous growth theories. The Unit covers other topics like patent right and economic development role of trademark in the progression of economy, Designs as an instrument of economic development, economic progress and Geographical Indication, Copyright as a means to economic growth, the construction of Traditional Knowledge in economic progress etc.

Unit 7 of this block explains the changing dimensions of IPR. This unit will explain the changes in Intellectual Property Regime, the emergence of new intellectual property rights, the influence of intellectual property regime in different countries and the role of traditional knowledge in transforming IP system etc.

UNIT 4 HISTORY AND EVOLUTION OF IPRS

Structure

- 4.1 Introduction
- 4.2 Objectives
- 4.3 History and Evolution of Industrial Property Rights: A Global Perspective
 - 4.3.1 Paris Convention for the Protection of Industrial Property, 1883
- 4.4 Legal Aspects of Intellectual Property Rights: A Comparative Study of Regional Developments
- 4.5 Harmonization of Intellectual Property Rights
 - 4.5.1 Unifying Patent Application Filing Procedure
 - 4.5.2 Evolution of Trademark Protection
 - 4.5.3 Emergence of Copyright Laws
 - 4.5.4 Geographical Indications and its Origin
 - 4.5.5 Growth of Industrial Design as an Intellectual Property
- 4.6 Emergence of New Generation Intellectual Property Rights
- 4.7 Trade Related Aspects of Intellectual Property Rights under WTO
- 4.8 Progression of Intellectual Property Laws in India
- 4.9 Summary
- 4.10 Terminal Questions
- 4.11 Answers and Hints
- 4.12 References and Suggested Readings

4.1 INTRODUCTION

Right to property is recognized and protected under international and national level. In the common parlance the term property refers to proprietary rights *in rem* i.e.; right against the whole world. The proprietary right of a person can be classified into corporeal and incorporeal property. In the earlier period the proprietary rights include nothing more than corporeal property i.e., Corporeal property indicates right of ownership over a material thing. For example, ownership of vehicle, land and building, chattels, shares and the debts due to him etc. constitutes corporeal property. It can again be classified into movable and immovable property. Movables are those material things which can be moved from one place to another. For example, vehicles, furniture etc. Whereas properties which cannot be moved from one place to another constitute immovable property. For example, land, buildings etc. In the present scenario, the concept of property has gained a very broad meaning. Nowadays the right to property not only includes movables and immovables but also corporeal and incorporeal, thus giving proprietary rights widest possible recognition all over the globe.

Incorporeal property refers to the right of ownership in an immaterial thing, which are recognized by law, are the subject matter of various immaterial

products of human intellect, skills and labour. It also includes right in *re aliena* over all things. Proprietary right over immaterial things such as patent right, copyright, trademark; right to design etc. are in addition forming part of incorporeal property of a person out of which the patent right, trademark, copyright etc. are more particularly termed as intellectual property because these rights are derived from the application of one's intellectual ability.

The Supreme Court in *R.C.Cooper v. Union of India*¹ aptly pointed out that: "property" means the "highest right a man can have to anything, being that right which one has to lands or tenements, goods or chattels which does not depend on another's courtesy : it includes ownership, estates and interests in corporeal things, and also rights such as trade-marks, copyrights, patents and even rights in personam capable of transfer or transmission, such as debts; and signifies a beneficial right to or a thing considered as having a money value, especially with reference to transfer or succession, and to their capacity of being injured".

In the recent times, it turned out to be indispensable that the authors of literary and artistic works and inventors need, besides reward for their creations, some form of protection to prevent others from exploiting their creations without their consent. In this context it became necessary to protect these rights by codifying the law relating to intellectual property rights and to prevent unauthorized transgression and use of it by other persons without owner's permission.

4.2 OBJECTIVES

After reading this unit, you should be able to:

- comprehend the proper meaning of property and diverse categories of property;
- be acquainted with the proprietary rights obtainable by a person;
- identify with the historical background for the growth of Intellectual Property Rights at the International sphere;
- be aware of different International Conventions which led to the progressive expansion of Intellectual Property Laws;
- explain the position of WIPO in the development of Intellectual Property;
- explain out the relationship between WIPO and WTO;
- have a basic understanding on the TRIPS Agreement; and
- be familiar with various national legislations that led to the development of IPRs in India.

4.3 HISTORY AND EVOLUTION OF INDUSTRIAL PROPERTY RIGHTS: A GLOBAL PERSPECTIVE

The international character of different Industrial property rights was recognized with the expansion of trade beyond national boundaries. Need to recognize and provide national treatment for IPRs finds its presence in first diplomatic meeting between 11 states in 1880 which led to adoption of Paris Convention for the Protection of Industrial Property in 1883. The Paris Convention for

¹ AIR 1970 SC 564

the Protection of Industrial Property was the first attempt to codify Industrial properties in general.

4.3.1 Paris Convention for the Protection of Industrial Property, 1883

In the international level, the history and evolution of intellectual property rights can be realized after the adoption of Paris Convention for the Protection of Industrial Property in 1883. This Convention was entered into force in 1884 and was revised several times and finally at Stockholm in 1967. The Paris Convention was a landmark international event in the history of intellectual property. The Convention was signed by 174 states with a promise to implement the provision of the Convention into their municipal sphere. As per Article 1(1) of the Paris Convention, the countries to which this convention applies constitute a union for the protection of industrial property. Under this Convention the term 'industrial property' is used in Article 1(2) in a broad sense which includes:

- Patents;
- Utility models;
- Industrial designs;
- Trademarks;
- Service marks;
- Trade names;
- Indications of source or appellations of origin;
- Repression of unfair competition.

Besides, industrial property under Article 1(3) shall be understood in a broadest sense and shall apply not only to industry and commerce proper, but likewise to agricultural and extractive industries and to all manufactured or natural products, for example, wines, grain, tobacco leaves, fruit, cattle, minerals, mineral waters, bear, flowers and flour. Article 1(4) of the Convention was also significant in nature which reads, "Patents shall include the various kinds of industrial patents recognized by the laws of the countries of the union, such as patents of importation, patents of improvement, patents and certificates of addition etc."

The Paris Convention established certain fundamental principles which are as follows:

- National treatment,
- The right of priority,
- Independence of patent,
- Parallel importation,
- Protection against false indications and unfair competition, and
- The guarantee of a certain minimum protection.

According to Article 2 (1) of the Convention, Nationals of any country of the Union shall, as regards the protection of industrial property, enjoy in all the other countries of the Union the advantages that their respective laws now grant or may hereafter grant, to nationals; all without prejudice to the rights specially provided for by this Convention. Consequently, they shall have the same protection as

the latter and the same legal remedy against any infringement of their rights, provided that the conditions and formalities imposed upon the nationals are complied with. However, no requirement as to domicile or establishment in the country where protection is claimed may be imposed upon nationals of countries of the Union for the enjoyment of any industrial property rights. This provision regarding domicile is contained in Article 2(2) of the Convention.

Further as provided under Article 2(3), the provisions of the laws of each of the countries of the Union relating to judicial and administrative procedure and jurisdiction, and to the designation of an address for service or the appointment of an agent, which may be required by the laws on industrial property are expressly reserved. Subsequently similar provisions were included in the TRIPS Agreement dealing with national treatment.

In addition to these provisions Article 3 contains same treatment for certain categories of persons as for nationals of countries of the Union. The Article reads, "Nationals of countries outside the Union who are domiciled or who have real and effective industrial or commercial establishment in the territory of one of the countries shall be treated in the same manner as nationals of the countries of the Union".

The main peculiarity of the Paris Convention is that it dealt with patents, trademarks, industrial designs etc., but did not contain provisions for the protection of copyrights. The Convention was largely for analyzing the scope of industrial property. The process of compulsory license (Article 5) and special national industrial property services (Article 12) are covered under this convention. Further the right to make special agreements is also dealt with in the Convention (Article 19). Hence, the Paris Convention is considered to be a landmark in the history of patent laws at the international level. The Paris Convention paved the way for the evolution of Patent Co-operation Treaty, 1970 and the European Patent Convention, 1973 and the Community Patent Convention. (Community Patent Convention was a failure. Subsequently in 1975 at Luxembourg nine member states signed the Convention. However it was not ratified by enough countries. Similar attempt was made in 1989 which also did not succeed.)

Self Assessment Question	(Spend 3 minutes)
<p>1) What are the basic principles enumerated under the Paris Convention, 1883?</p> <p>.....</p> <p>.....</p> <p>.....</p>	

4.4 LEGAL ASPECTS OF INTELLECTUAL PROPERTY RIGHTS: A COMPARITIVE STUDY OF REGIONAL DEVELOPMENTS

➤ **African Regional Intellectual Property Organization (ARIPO)**

As per the initiative of United Nations Economic Commission for Africa and

the World Intellectual Property Organization, a draft agreement on the creation of the industrial property organization for English speaking Africa was prepared and it was adopted by a diplomatic Conference on Dec.9, 1976 at Lusaka, Zambia. This Agreement was popularly known as Lusaka Agreement. The Lusaka Agreement was the result of 'Regional Seminar on Patents and Copyright for English-speaking African Countries' held at Nairobi.

The main reason for the establishment of African Regional Intellectual Property Organization was to harmonize the industrial properties regime among member countries to avoid duplication. The preamble to the Lusaka Agreement clearly states that member states are "aware of the advantage to be derived by them from the effective and continuous exchange of information and harmonization and co-ordination of their laws and activities in industrial property matters".

The member states also "recognizes that the creation of an African regional industrial property organization is for the study and promotion of and co-operation in industrial property matters in collaboration with the Economic Commission for Africa, the World Intellectual Property Organization and other appropriate organizations would best serve this purpose".

The main objectives of the Organization enshrined under Article III of the Lusaka Agreement are as follows:

- a) to promote the harmonization and development of the industrial property laws, and matters related thereto, appropriate to the needs of its members and of the region as a whole;
- b) to foster the establishment of a close relationship between its members in matters relating to industrial property;
- c) to establish such common services or organs as may be necessary or desirable for the co-ordination, harmonization and development of the industrial property activities affecting its members;
- d) to establish schemes for the training of staff in the administration of industrial property laws;
- e) to organize conferences, seminars and other meetings on industrial property matters;
- f) to promote the exchange of ideas and experience, research and studies relating to industrial property matters;
- g) to promote and evolve a common view and approach of its members on industrial property matters;
- h) to assist its members, as appropriate, in the acquisition and development of technology relating to industrial property matters, and
- i) to do all such other things as may be necessary or desirable for the achievement of these objectives.

As per Article IV of the Agreement "the Membership of the Organization shall be open to the States members of the United Nations Economic Commission for Africa or the Organization of African Unity". There are 18 member states to the Lusaka Agreement to date.

Self Assessment Question

(Spend 2 minutes)

2) Explain ARIPO.

.....

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.....

.....

➤ **European Patent Organization**

The European Patent Organization was established on 7th October, 1977. This was the result of European Patent Convention held at Munich in 1973. It is an inter-governmental organization having two principal organs:

- European Patent Office (located at Munich)
- Administrative Council.

The preamble to the Convention defines the spirit of international co-operation under which the Organization was set up: “The Contracting States, desiring to strengthen co-operation between the States of Europe in respect of the protection of inventions, desiring that such protection may be obtained in those States by a single procedure for the grant of patents and by the establishment of certain standard rules governing patents so granted, desiring for this purpose, to conclude a Convention which establishes a European Patent Organization and which constitutes a special agreement within the meaning of Article 19 of the Convention for the Protection of Industrial Property, signed in Paris on 20 March 1883 and last revised on 14 July 1967, and a regional patent treaty within the meaning of Article 45, paragraph 1, of the Patent Cooperation Treaty of 19 June 1970”.

Presently there are 38 member states to the European Patent Organization. The main objective of the Organization is to establish a uniform procedure for intellectual property protection among member countries.

➤ **Eurasian Patent Organization**

Due to the fall of the former USSR, a single patent system available among the region was broken. As a result, on 12th March 1993 a meeting was held among the heads of the governments of Commonwealth of Independent States. They reached a consensus on the protection of industrial property which lead to the conclusion of the Eurasian Patent Convention, entered into force on August 12, 1995 after various deliberations and discussions. The Convention creates an interstate system for the protection of inventions based on single patent available within the territory of all contracting states.

Article 1 of the Convention provides for the ‘Establishment of the Eurasian Patent System’. It states that “The Contracting States, maintaining their complete sovereignty to develop their national systems for protection of inventions, hereby establish a Eurasian Patent System”.

Article 2 of the Convention provides for the Establishment of the Eurasian Patent Organization in order to administer the functioning of the Eurasian Patent System and the grant of Eurasian patents. Article 2 further provides that:

- All Contracting States shall be members of the Organization.
- The organs of the Organization are the Administrative Council and the Eurasian Patent Office.
- The Eurasian Office is headed by the President who is the chief executive of the Organization and represents the Organization.
- The Organization is an intergovernmental organization having the status of legal entity.
- The Organization shall, in each Contracting States, enjoy the legal capacity attributed to legal entities in conformity with the national law of that State.
- The Organization may acquire or dispose of movable property or real estate and may defend its rights in court.
- The headquarters of the Organization shall be at Moscow, Russian Federation.

Articles 3 and 4 of the Convention provides for the composition and functions of the Administrative Council and Eurasian Patent Office respectively.

➤ **African Intellectual Property Organization (OAPI)**

The Libreville Agreement of 1962 resulted in the establishment of African and Malagasy Industrial Property Office. The main aim of this Agreement was to unify legislations among member countries, to set up a common office and the centralization of procedures. This Agreement paved the way for the development of intellectual property in French-speaking countries in the African continent.

Subsequently, in 1977 the Bangui Agreement was concluded. The outcome of the Agreement was the setting up of OAPI or African Intellectual Property Organization with its headquarters at Yaoundé, Cameroon. It consists of 16 member states. The OAPI consists of three principal organs:

- Administrative Council
- Directorate General
- High Commission of Appeal

The main functions of this Organization are the granting of intellectual property protection, preparation of systematic records and information relating to intellectual property rights and promoting technological development among member countries.

➤ **Patent Law Treaty**

The Patent Law Treaty was concluded at Geneva on 1st June 2000. It consists of 32 contracting parties. The main aim of the *Patent Law Treaty (PLT)* is to harmonize procedural aspects of national and regional patent applications and representation.

➤ **Substantive Patent Law Treaty**

The Substantive Patent Law Treaty is not yet concluded and the deliberations and discussions relating to the treaty are still on the move. The Main aim of the treaty is to harmonise the substantive aspects of patents such as novelty, non-obviousness etc. In 2004, the 10th session of the WIPO Standing Committee on the Law of Patents discussed and considered a draft Substantive Patent Law Treaty for harmonization of substantntive aspects of patent laws.

> **Patent Prosecution Highway**

The main object of the Patent Prosecution Highway is to provide speedy process of patent prosecution by way of exchanging information among different patent offices. The main advantage of Patent Prosecution Highway is to minimise examination workload and increase the speedy disposal of patent applications.

A **Patent Cooperation Treaty-Patent Prosecution Highway** collaboration has been initiated in the year 2010 for the duration of two years. The main function of the programme include speedy patent examination procedure for Patent Cooperation Treaty Application. Under this programme, the applications filed under the Patent Cooperation Treaty have to receive a positive written opinion and an examination report from European Patent Office, Japan Patent Office and United States Patent and Trademarks Office.

Self Assessment Question	(Spend 3 minutes)
3) What is PCT-PHP?	
.....	
.....	
.....	
.....	

4.5 HARMONIZATION OF INTELLECTUAL PROPERTY RIGHTS

4.5.1 Unifying Patent Application Filing Procedure

After signing of the Paris Convention several attempts were made to harmonize the substantive and procedural law relating to industrial property rights. It was only in 1970 countries party to the Paris Convention agreed to a formulate special treaty known as Patent cooperation Treaty 1970 to provide a unified procedure for filing patent applications to protect inventions in each of its contracting states. Other treaties which led to the harmonization of patent application filing procedure includes Strasbourg Agreement of the International Patent Classification, 1971 and Budapest Treaty on International Recognition of the Deposit of Micro Organisms, 1980.

The Patent Co-operation Treaty contains certain modifications relating to Paris Convention was done. The Treaty is a 'Special Agreement' and is open to whichever country who is a member of the Paris Union. The basic features of the Patent Co-operation Treaty are as under:

- 1) Enables patent protection for an invention by filing a single application called International Patent Application;
- 2) The international application is then subjected to 'international search';
- 3) The international search is conducted by major patent offices which ultimately results in 'international search report' i.e., the patent office will list the citations of the published documents which will impinge on the patentability of an invention claimed under the application;

- 4) The Treaty simplifies and make the filing of patent application more economical for a series of countries;
- 5) The Treaty created a Union and it has an Assembly. The membership of the Assembly is open to every state party to the Treaty;
- 6) The Patent Co-operation Treaty is procedural rather than substantive in nature;
- 7) The Treaty expanded the scope and ambit for the advancement of World Intellectual Property Organization as an agency for international patenting.

The Strasbourg Agreement is only a regional agreement which intends to:

- Common classification for *patents for invention*;
- Inventors' certificates;
- Utility models; and
- Utility certificates.

The Budapest Treaty is a special agreement under the Paris Union and monitored by World Intellectual Property Organization. The States parties to this Treaty constitute a Union for the international recognition of the deposit of microorganisms for the purposes of patent procedure (Article 1). The main focus of the Convention was related to the deposit of the micro organisms. To achieve the purpose the Convention provided for an International Depository Authority who should comply with certain requirements which consist of:

- Acceptance of the deposit;
- The period of storage;
- The right to redeposit;
- The viability of testing;
- Secrecy;
- Furnishing of samples;
- The import and export restrictions.

In addition to all these provisions the treaty is indeed advantageous because of certain points:

- 1) The treaty provides homogeneous system of deposit, recognized and furnished samples of micro organisms and thereby increase the security of the depository;
- 2) The applicant can deposit the micro organism in the state in which he files the patent application instead of depositing in each and every contracting state, making the process more convenient.

4.5.2 Evolution of Trademark Protection

The main purpose of granting trademark is to distinguish similar kind of goods and services of one from that of others. The trademark assures quality or quantity of goods and services. In order to protect these rights in the international community several treaties has been concluded which are:

The Madrid Agreement and the Protocol relating to the Madrid Agreement is a multilateral treaty governing registration systems for obtaining protection. According to Article 1(2) of the Agreement, "Nationals of any of the contracting countries may, in all the other countries party to this Agreement, secure protection for their marks applicable to goods or services, registered in the country of origin, by filing the said marks at the International Bureau of Intellectual Property (hereinafter designated as "the International Bureau") referred to in the Convention establishing the World Intellectual Property Organization (hereinafter designated as "the Organization"), through the intermediary of the Office of the said country of origin". Under the Madrid Agreement it is possible to protect a mark in a large number of countries by obtaining an international registration. This registration will have effect in each of the Contracting Parties that has been designated. The following persons are competent to file an application for registration:

- A natural person
- Legal entity

The competent parties should have connection with a Contracting Party to the Agreement or the Protocol through establishment, domicile or nationality.

The major purpose of Nice Agreement is the classification of goods and services for the purpose of registration of trademarks and service marks. The classification is popularly known as 'nice classification' which is an international classification of goods and services applied for the registration of trademarks and service marks, comprising of a 34 classes of goods and 11 for services and also includes an alphabetical list of goods and services containing 11,600 items. A Committee of Experts amends and supplements these lists.

The main and purpose of Vienna Agreement is to classify the figurative elements of marks into categories, divisions and sections on the basis of their shape. This is called 'Vienna Classification'.

The Trademark Law Treaty is a treaty governing general standards of protection to be provided by the States. The main aim of the Trademark Treaty is to simplify the registration procedures of trademarks in the national as well as regional level through a uniform procedure in various jurisdictions. The treaty is open to States members of World Intellectual Property Organization and to certain intergovernmental organizations.

Article 2 of the Convention provides for the marks to which the treaty applies. Accordingly the treaty shall apply to the following marks:

- Marks consisting of visible signs. But only those Contracting Parties which accept for registration three-dimensional marks shall be obliged to apply this Treaty to such marks (Article 2(1)(a));
- Marks relating to goods (trademarks) or services (service marks) or both goods and services (Article 2(2)(a)).

But there are certain marks for which the treaty does not apply:

- Hologram marks and to marks not consisting of visible signs, in particular, sound marks and olfactory marks (Article 2(1)(b));
- Collective marks, certification marks and guarantee marks (Article 2(2) (b)).

The main aim of Singapore Treaty is to build a dynamic international framework for the registration procedure. When compared with the Trademark Law Treaty, the Singapore Treaty is applicable to all types of marks registrable under the municipal law of the contracting party. Moreover this treaty expands the ambit of the application and innovative developments in the field of communication technology.

Generally, the Treaty is applicable to marks that can be registered under the municipal law of the contracting parties. This treaty is applicable to all types of marks including non-traditional visible marks such as:

- Holograms;
- Three-dimensional marks;
- Color mark;
- Position and Movement marks.

Furthermore, the Treaty also extends to the ensuing types of non-visible marks;

- Sound mark;
- Olfactory or Taste and Feel mark.

The non-graphic or photographic reproduction of these marks is to be endowed with the applications, as stipulated beneath the regulations.

4.5.3 Emergence of Copyright Laws

Copyright is considered to be a bundle of rights where protection is granted to:

- Literary, dramatic and musical work. Computer programs and software comes under the head of literary works.
- Artistic work.
- Cinematographic films including sound track and video films.
- Any other storage device.

The first international convention on the protection of copyright was the Berne Convention for the Protection of Literary and Artistic Works, 1886. According to the preamble the main purpose of the Berne Convention is to protect, in as effective and uniform a manner as possible, the rights of authors in their literary and artistic work. Moreover, Article 1 of the Convention provides that the countries to which this Convention applies constitute a union for the protection of the rights of authors in their literary and artistic works. The Conventions contains three fundamental principles:

- Principle of national treatment
- Principle of automatic protection
- Principle of independence of protection

In addition, Article 4 of the Convention provides the criteria of eligibility for protection of cinematographic works, works of architecture and certain artistic works. The protection of this Convention shall apply to:

- Authors of cinematographic works the maker of which has his headquarters or habitual residence in one of the countries of the Union;
- Authors of works of architecture erected in a country of the Union or of other artistic works incorporated in a building or other structure located in a country of the Union.

The International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, 1961 provides that protection granted under this Convention shall leave intact and shall in no way affect the protection of copyright in literary and artistic works. Consequently, no provision of this Convention may be interpreted as prejudicing such protection. The Convention grants protection to the following categories:

- Performers
- Producers of phonograms
- Broadcasting organizations

The Geneva Convention for the Protection of Producers of Phonograms against Unauthorized Duplication of their Phonograms, 1971 was adopted to prevent the widespread and increasing unauthorized duplication of phonograms and the damage this is occasioning to the interests of authors, performers and producers of phonograms and also aims at the protection of producers of phonograms against such acts will also benefit the performers whose performances, and the authors whose works, are recorded on the said phonograms.

The main object of the Brussels Convention (Satellite Convention), 1974 is:

- To prevent misappropriation of satellite signals on an international level;
- To prevent unauthorized distribution of signals, but not their unauthorized reception;
- The protection goes to the signal and not the content of the material sent by the signal;
- The protection goes to the emitter or carrier but not the copyright owner of the material transmitted by satellite;
- If the distribution of signals is made from a direct broadcasting satellite, then the Convention does not apply.

The WIPO Copyright Treaty, 1996 is a special agreement within the meaning of Article 20 of the Berne Convention for the Protection of Literary and Artistic Works, as regards Contracting Parties that are countries of the Union established by that Convention. This treaty grants special protections to:

- Computer programs
- Compilations of data or other material

The WIPO Performances and Phonograms Treaty, 1996 aims to develop and maintain the protection of the rights of performers and producers of phonograms in a manner as effective and uniform as possible. The basic foundation for the adoption of the treaty was the need to introduce new international rules in order to provide adequate solutions to the questions raised by economic, social, cultural and technological developments.

4.5.4 Geographical Indications and Its Origin

Apart from the above determined Conventions, Treaties and Agreements, there are certain international documents governing the protection of geographical indications. Even though Paris Convention, *Madrid Agreement for the Repression of False or Deceptive Indications of Source on Goods*, *Madrid Agreement Concerning the International Registration of Marks*, *Protocol Relating to the Madrid Agreement* etc. deal with geographical indication of goods, there are specific Treaty governing the point.

The Lisbon Agreement aims to protect the “appellation of origin” which means the geographical denomination of a country, region, or locality, which serves to designate a product originating therein, the quality or characteristics of which are due exclusively or essentially to the geographical environment, including natural and human factors. The country of origin is the country whose name or the country in which is situated the region or locality whose name, constitutes the appellation of origin which has given the product its reputation (Article 2).

4.5.5 Growth of Industrial Design as an Intellectual Property

The main object of the Hague Agreement of international Deposit of Industrial Design is to facilitate the international protection of industrial designs. An international deposit of industrial design is normally protected for a term of five years and is renewable every five years. The members of the Paris Union are eligible for membership in the Hague Union for the international deposit of industrial designs. To date there are 60 contracting parties to this Agreement. The pre requisites for the granting of protection include:

- Novelty;
- Distinctiveness.

The Locarno Agreement was signed Locarno on October 8, 1968 as amended on September 28, 1979 with 52 contracting parties. The main object of this Agreement is to bring uniformity to the classification of industrial design (Article 1(2)). The international classification of industrial design as enunciated under Article 1(3) shall comprise:

- A list of classes and subclasses;
- An alphabetical list of goods in which industrial designs are incorporated, with an indication of the classes and subclasses into which they fall;
- Explanatory notes.

4.6 EMERGENCE OF NEW GENERATION INTELLECTUAL PROPERTY RIGHTS

In the beginning of the 21st century the scope and ambit of Intellectual Property Rights expanded and reached new dimensions. For example, biological diversity, traditional knowledge etc.

1) Convention on Biological Diversity, 1992

The Convention was adopted on June 5, 1992 at Rio de Janeiro and entered into Force on December 29, 1993 with 193 signatories. The Convention was adopted because of the following reasons:

- The intrinsic value of biological diversity and of the ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components,
- The importance of biological diversity for evolution and for maintaining life sustaining systems of the biosphere,
- The conservation of biological diversity is a common concern of humankind,
- States have sovereign rights over their own biological resources,
- States are responsible for conserving their biological diversity and for using their biological resources in a sustainable manner,
- Biological diversity is being significantly reduced by certain human activities,
- General lack of information and knowledge regarding biological diversity and of the urgent need to develop scientific, technical and institutional capacities to provide the basic understanding upon which to plan and implement appropriate measures.
- The close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components.

The main object underlying the Agreement is to anticipate, prevent and attack the causes of significant reduction or loss of biological diversity at source, also that where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat. The Convention further provides that fundamental requirement for the conservation of biological diversity is the *in-situ* conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings.

4.7 TRADE RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS UNDER WTO

The TRIPS is a multilateral trade Agreement binding all member countries of the WTO Agreement which was negotiated at the end of Uruguay Round of the General Agreement on Tariffs and Trade (GATT) in April, 1994. TRIPS Agreement is added to the WTO Agreement as Annexure IC. The main aim of TRIPS Agreement is to protect and enforce Intellectual Property Rights to reward creativity and inventiveness. It ensures the minimum protection that must be given for each category of Intellectual Property Rights in the national law of each member country. It also guarantees procedures and remedies provided by each country for the enforcement of intellectual property rights.

The TRIPS Agreement consists of seven parts and 73 Articles. The parts consist of:

- General provisions and basic principles (Part 1)
- Standards concerning the availability, scope and use of intellectual property rights (Part II) which include:

- 1) Copyright and Related Rights
 - 2) Trademarks
 - 3) Geographical Indications
 - 4) Industrial Designs
 - 5) Patents
 - 6) Layout-Designs (Topographies) of Integrated Circuits
 - 7) Protection of Undisclosed Information
 - 8) Control of Anti-Competitive Practices in Contractual Licenses.
- Enforcement of Intellectual Property Rights (Part III) which comprises of:
 - 1) General Obligations
 - 2) Civil and Administrative Procedures and Remedies
 - 3) Provisional Measures
 - 4) Special Requirements Related to Border Measures
 - 5) Criminal Procedures.
 - Acquisition and maintenance of Intellectual Property Rights and related *Inter-Partes* procedures (Part IV);
 - Dispute prevention and settlement (Part V);
 - Transitional arrangements (Part VI);
 - Institutional arrangements; and final provisions (Part VII).

The main objective of TRIPS Agreement is contained in Article 7 which reads: “the protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology to the mutual advantage of producers and users of technological knowledge and in a manner conducive to the social and economic welfare, and to a balance of rights and obligations.”

Hence TRIPS Agreement under WTO has also provided tremendous contributions to evolve the new arena of intellectual property rights by protecting inventions and creativeness which led to worldwide intellectual and technological advancements. The TRIPS Agreement codifies the intellectual property laws and provides a uniform pattern exploitation of these rights. Moreover, it prescribes a separate dispute settlement mechanism. Now, TRIPS Agreement is considered to be one of the comprehensive legal documents dealing with intellectual property in international law. The independent and separate Conventions relating to different types of intellectual property rights along with TRIPS Agreement paved the way for the development of intellectual property rights.

4.8 PROGRESSION OF INTELLECTUAL PROPERTY LAWS IN INDIA

The intellectual property laws in India were developed even during the British period. They enacted the Indian Patents and Designs Act in 1911. Subsequently,

after the independence the Government of India appointed the Patents Enquiry Committee in 1948 in order to review the working of the patents law in India. The Committee submitted its final report in 1950 which led to the introduction of Patents Bill in the Parliament in 1953. But the Bill lapsed due to the dissolution of first Lok Sabha. The Government, in 1957, appointed Justice N. Rajagopala Ayyangar to advise the Government to introduce adequate changes to patent law. On the basis of his recommendation the Patents Bill, 1965 was introduced in the Lok Sabha. Later, after the lapse of five years the Patents Bill was passed by both the houses of the Parliament and received the assent of the President on 19th September, 1970. It has been amended by the Repealing and Amending Act 1974, The Delegated Legislation Provisions Amendment Act, 1985, The Patents Amendment Act of 1999, 2002, 2005 respectively. The attempt made by the Indian Parliament to enact patent legislation was to comply with the TRIPS Agreement since it was a signatory to the Agreement.

- In *Bishwanath Prasad Radhey Shyam v. Hindusthan Metal Industries*², the Supreme Court held that the object of patent law is to encourage scientific research, new technology and industrial progress.

The primary legislation dealing with the copyright laws in India is the Copyright Act of 1957 which contains 79 sections. Being a member of the Berne, Universal Copyright Convention, and TRIPS, the Act was amended several times and at last major amendment done in 1999. This Act provides for the following protections in respect of rights relating to authors, composers, artists and designers for their original works of:

- Literary, dramatic, musical and artistic works;
- Cinematograph film;
- Sound recordings and;
- Neighboring rights of the authors.

The law relating to trademarks in India can be traced from the Trademarks and Merchandise Act of 1958. This Act was replaced by the Trademarks Act of 1999 with a view to simplify the Trademarks Act, to allow registration of service marks and to extend the period of protection of trademark from seven years to ten years.

The Designs Act was passed in 1911 and subsequently repealed by the Designs Act, 2000 which contains 48 sections and 11 chapters. The main aim of this Act is to protect the designs, which serve the purpose of visual appeal. Under this Act design means only the features of:

- Shape;
- Configuration;
- Pattern;
- ornament;
- composition of lines; or
- Colors applied to any article.

² (1979)2 SCC 511

The next major legislation in India is the Geographical Indication of Goods (Registration and Protection) Act, 1999 which is divided into 9 chapters and 86 sections. This Act provides for the registration and better protection of geographical indications relating to goods.

Moreover, the Semiconductor Integrated Circuits Layout-Design Act, 2000 intended for the protection of the semiconductor was also introduced. Section 2 (h) of the Act defines layout-design as “a layout of transistors, and other circuitry elements and includes lead wires connecting each elements and expressed in any manner in a semiconductor integrated circuits.”

In addition to these Acts the Biological Diversity Act of 2002 intended to protect the bio diversity encompasses the variety of all life on earth. The Act also aims to regulate access to biological resources of the country with the purpose of securing equitable share in benefits arising out of the use of biological resources and associated knowledge relating to biological resources and also to conserve and sustainably use biological diversity.

Hence, as a post industrial revolution phenomena exploitation of Intellectual Property Rights has assumed new dimensions. These rights have turned to be the products of modern commercial world. The evolutions of Intellectual Property Laws are closely associated with the expansion of knowledge, industrial progress and commercial utility. The process of development, national and international, is still continuing in new areas of intellectual property such as traditional knowledge, bioinformatics etc.

Self Assessment Question

(Spend 3 minutes)

4) Mention the Essential features of Trademarks Act, 1999.

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4.9 SUMMARY

- The proprietary right of a person can be classified into corporeal and incorporeal property. In the earlier period the proprietary rights include nothing more than corporeal property i.e., Corporeal property indicates right of ownership over a material thing. It can again be classified into movable and immovable property. Movable are those material things which can be moved from one place to another. Whereas properties which cannot be moved from one place to another constitute immovable property.
- Incorporeal property refers to the right of ownership in an immaterial thing, which are recognized by law, are the subject matter of various immaterial products of human intellect, skills and labour.
- Intellectual Property Laws has undergone remarkable changes with various international conventions which begin with the adoption of Paris Convention for the Protection of Industrial Property in 1883. The constituent

instrument of the World Intellectual Property Organization (WIPO), an intergovernmental organization that became one of the specialized agencies of the United Nations system of organizations in 1974.

- The agreement establishing WTO was also concluded. The most significant contribution of WTO in the field of Intellectual Property Rights is the Trade Related Aspects of Intellectual Property Rights (TRIPS Agreement), which is a multilateral trade agreement binding on all the members of the WTO.
- At the national level also there are various legislations in the areas like patents, copyright, trademarks, industrial designs, geographical indications etc. which led to the progressive development of intellectual property laws in India.
- IPRs have turned to be the products of modern commercial world and the evolution of these rights are closely associated with the expansion of knowledge, industrial progress and commercial utility.

4.10 TERMINAL QUESTIONS

- 1) Discuss the historical evolution of IPR Laws under international law.
- 2) Discuss regional development of intellectual property rights.
- 3) What is the relationship between TRIPS Agreement and IPR Laws in India?

4.11 ANSWERS AND HINTS

Self Assessment Questions

- 1) National treatment, the right of priority, independence of patent, parallel importation, protection against false indications and unfair competition, and the guarantee of a certain minimum protection.
- 2) Refer to Section 4.4
- 3) Refer to Section 4.4
- 4) Refer to Section 4.8

Terminal Questions

- 1) The evolution of IPR begins from various international conventions starting from the Paris Convention to the WTO and TRIPS Agreement. A special mention regarding WIPO is also essential.
- 2) Refer Para 1.4.
- 3) The Indian Parliament has enacted and amended various legislations under IPR in order to comply with and incorporate the provisions of the TRIPS Agreement since it was a signatory to the Agreement.

4.12 REFERENCES AND SUGGESTED READINGS

- 1) Paris Convention, 1883
- 2) WIPO Convention, 1967

- 3) TRIPS Agreement, 1994
- 4) Patent Act, 1970 with amendments
- 5) Copyright Act, 1957
- 6) Designs Act, 2000
- 7) Geographical Indications Act, 1999
- 8) Layout Designs Act, 2000

UNIT 5 THEORIES OF INTELLECTUAL PROPERTY RIGHTS

Structure

- 5.1 Introduction
- 5.2 Objectives
- 5.3 Theoretical Foundation of Intellectual Property Rights
- 5.4 Theories of Intellectual Property Rights
 - 5.4.1 Utilitarian Theory
 - 5.4.2 Labour Theory
 - 5.4.3 Social Planning Theory
 - 5.4.4 Economic Incentive Benefit Theory
 - 5.4.5 Consideration Theory
 - 5.4.6 Personality Theory
 - 5.4.7 Ecological Theory
 - 5.4.8 Unjust Enrichment Theory
 - 5.4.9 Theory of Distributive Justice
- 5.5 Conclusion
- 5.6 Summary
- 5.7 Terminal Questions
- 5.8 Answers and Hints
- 5.9 References and Suggested Readings

5.1 INTRODUCTION

The right to property is recognized and protected in almost all legal systems of the world. A person possesses rights over material things as well as immaterial things. Ultimately, these rights constitute that person's property or wealth.

The property rights of a person can be studied under two main heads:

- Corporeal property; and
- Incorporeal property.

In the recent period incorporeal property especially intellectual property gained special attention in the world. The importance of legal recognition of intellectual property expanded new horizons in this field. The intellectual properties are the products of a person's intellect which is equally valuable to his corporeal property. Therefore, the law gives him protection against unauthorized use of such properties by other persons.

The main purpose of theoretical foundation of intellectual property rights is to find out the origin, development and recognition of certain peculiar kind of rights which emanates from human skill and labour. The emergence of these incorporeal rights create certain complex questions regarding the legal status and transfer of rights as compared to corporeal properties. In the opinion of Dr.W.Friedmann,

there are two important factors which constitute the development of legal theory i.e;

- **Philosophy:** Each and every legal philosopher rests upon their own underlying reasons for the justifications of legal rights. In their perspective philosophy leads to the development of new types of rights enforceable through courts.
- **Political ideology:** This also played an important role in the development of legal rights. The socialist and capitalist approach of legal rights emanates from political ideology of society which ultimately constitute individual human being.

Philosophical justifications and legal theories constitute the foundation of every legal principle. Intellectual property rights are not an exception, which rests upon the edifice of some theoretical arguments. Different thinkers have propounded some theoretical basis of origin and development of intellectual properties in different angles. Fundamentally, theories explain wherefrom that particular piece of law originates and its relationship with various spheres of human life.

5.2 OBJECTIVES

After reading this unit, you should be able to:

- explain the two main organizations that deal with the intellectual property rights;
- describe the basic theoretical foundations of intellectual property rights;
- be acquainted with the norms of legal theories;
- identify the utilitarian theory of intellectual property rights and its limitations;
- be aware of the contribution of Bentham to the development of the theory of utility;
- describe the Lockean Labour theory on intellectual property;
- explain the basic drawbacks of the labour theory;
- know the social planning theory and its limitations;
- describe the justifications under the economic incentive benefit theory and the drawbacks of the theory;
- be aware of the reasoning of consideration theory regarding intellectual property rights and the criticisms leveled against the theory;
- comprehend the personality theory propounded by Kant and Hegel;
- find out the application of personality theory and various limitations of personality theory;
- identify with the ecological justifications and its limitations concerning intellectual property rights;
- explain the reasoning of unjust enrichment theory and theory of distributive justice;
- differentiate the utilitarian perspectives of intellectual property rights from that of non utilitarian perspectives.

5.3 THEORETICAL FOUNDATION OF INTELLECTUAL PROPERTY RIGHTS

The theories of intellectual property are an inquiry on the evolution of intellectual property laws. There are certain factors which lead to the development of intellectual property laws such as:

- 1) Political ideology;
- 2) Economic condition;
- 3) Moral philosophy;
- 4) Ethics;
- 5) Scientific development etc.

The pragmatic approach of the above mentioned factors in the social life constitute the theoretical foundation of intellectual property rights. In the opinion of Dr. W. Friedmann, "all systematic thinking about legal theory is linked at one end with philosophy and at the other end with political theory". The same is the case with intellectual property laws also. In short, the theories of intellectual property rights are the midway between philosophical justifications and political theories.

According to John Salmond, legal theories rest upon three basic norms:

- 1) **Legal exposition:** It analyses the law as it exists without explaining historical evolution or ethical utility;
- 2) **Legal history:** It is a quest of law of the past and the changes it has undergone and the reasons that led to those changes.
- 3) **Science of legislation:** It ascertains the aim and purpose of legislation and its utility.

There are many justifications for existence of intellectual property laws. According to one argument since intellectual property and tangible property are analogous to each other they should be treated alike. Both intellectual property and tangible property requires legal protection because of their economic value. Grant of Intellectual property right has its basis in its economic value. Like physical property and intellectual properties possess economic value and hence the owners of such property should be protected from misappropriation and compensated adequately.

The labour justification is that when an individual exerts labour over intellectual creations he should have natural right to the property that is created. In the opinion of John Locke, "when one's labour is mixed with property, the labourer obtains a natural right to the intellectual creation."

Another justification comes in the form of the proponents of the spiritual rights which according them emanate from the personality of the inventor or the creator of a work. They argue that intellectual work becomes part of the personality of the person who creates the work. According to this theory the personality and intellectual skill of a person are inseparable.

The theories of intellectual property rights generally reflect the struggle of law between tradition and progress, stability and change, certainty and flexibility.

There are different theories which try to explain the foundation of intellectual property rights. Some writers are of the view that natural law is the basis of intellectual property rights while some others hold the opinion that economic incentives is the true basis of intellectual property rights. Yet another view regarding the legal basis of intellectual property rights rest upon the utilitarian principle. Hence, a clear understanding of these theories is essential to the development of the concept of incorporeal property and its related rights to new dimensions.

Self Assessment Question

(Spend 3 minutes)

- 1) What are the essential factors which contribute to the development of intellectual property rights?

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5.4 THEORIES OF INTELLECTUAL PROPERTY RIGHTS

The different theories based on intellectual property rights are as follows:

5.4.1 Utilitarian Theory

The utilitarian theory is advocated by Gerny Bentham. This theory elaborates the simple truth that law is an instrument of social stability and a factor of social change. Bentham introduced the idea that the process of making law should be governed by principles to achieve the ultimate aim by bringing the maximum happiness to the maximum number of members in the society. This theory is popularly known as the theory of utility.

The theory of utility rests upon social welfare and development of useful knowledge and innovations available and advantageous to the public at large. If the intellectual property rights are of no utility, it will not maximize social welfare. So the lawmakers should strike a balance between the powers of exclusive right to use the inventions and partially hamper the enjoyment of that right by the general public. Maximum satisfaction of desires more efficiently and at minimum costs constitutes the social significance of the principle of utility. It is the duty of the state to protect the intellectual properties to promote industrial progress and social welfare. The fundamental goal behind this process is utility.

The main supporters of the utilitarian theory are John Stuart Mill, Pigou and Clark. In the opinion of Mill “patent monopolies are given a temporary exclusive privilege that there is a balance of interest between the inventor and the consumers of the invention i.e. the inventor gets the reward for his invention and the consumer is proportionally benefitted from the invention. This is more advantageous than the governmental rewards, since it infringed discretion”. Pigou and Clark tried to explain utilitarian theory in an economic basis.

The utilitarian theory has its own relevance to such other forms of intellectual properties like trade secret law, trademark law, copyright, and up to a certain

extent to patent laws. Moreover the main arguments regarding the utilitarian theory is that:

- The innovations and creations should provide greatest happiness to the greatest number;
- The innovations and creations should not be profit oriented but should be available to the public at a low price.

The followers of utilitarian theory also argue that intellectual property laws ultimately promotes technological advancements which is beneficial to the society.

➤ **Limitations of utilitarian theory:**

In spite of its advantages, the utilitarian theory has certain shortcomings:

- **Governmental use:** The governmental use of certain intellectual properties like patent, trademark and traditional knowledge ultimately hamper the utilitarian theory.
- **Compulsory license:** Compulsory licensing of certain intellectual properties like patent, trademark and copyright up to a certain extent creates a barrier to the utilitarian theory.
- **Procedural formalities:** For availing the benefit derived from the inventions need some complicated procedure i.e.; application for registration, renewal of registration etc.
- **Time consuming:** The procedures to be followed in order to enjoy legal protection of intellectual properties consumes certain period of time.
- **Varied impacts:** The impact of this theory varies for different kinds of intellectual properties such as copyright, patent, trade secret, geographical indications etc.
- **Lack of finance:** In the initial face the inventor or the creator of intellectual property spends a considerable amount in the form of fees and other related expenses following renewal fee after the expiration of the time.
- **Far reaching utility:** The incentive to the inventor or creator is not an immediate result. If the utility is proved and accepted by the consumers, then the benefit follows.
- **Lack of awareness:** where the inventor is unaware about the commercial possibilities of his invention the theory of utility will not work.

Self Assessment Question

(Spend 3 minutes)

2) What is the relevance of utilitarian theory in the field of intellectual property?

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5.4.2 Labour Theory

The labour theory of intellectual property was propounded by John Locke. The basic idea of labour theory of intellectual property is that a person's productive work gives him the right of property claim. The inventor has certain claims over his property which he made or created. In order to raise a claim over his creation or invention the inventor has to prove that his invention was appropriated further for certain function which entails the element of labour. This theory is otherwise known as theory of appropriation.

Fundamentally, the labour theory derives from natural rights approach which treats nature as a heritage which is shared equally by all human beings. If a person who labour upon resources that are either not owned or held in common has a natural property right to the fruits of his effort. Hence, it is the duty of the state to respect and enforce that natural right. Where a work is done by a person by his own labour and his own intellect, then that person has exclusive right over the work.

According to Locke, goods are the common bequest endowed by God in order to enjoy. But in its natural condition it cannot be benefitted. To enjoy these goods the individual have to exercise labour and alter these goods into private property because labour provides certain value to the goods making it enjoyable. Locke also believed that exclusive right over the property is essential for further production.

In the words of Leggett, when an individual claims exclusive right for his intellectual property, he is not sure that at the same time the same idea enters some others mind. Therefore these rights can be protected without violating the right of that other person. When an intellectual property right is protected that right should not impede the right of another.

The labour theory can be generally summed up as under:

- Tom Palmer called the labour theory as the Moral Desert Theory;
- The labour theory derives from the natural rights approach wherein the nature is the common heritage of mankind;
- By exerting labour to the natural resources, the inventor of the goods makes it his private property;
- Over the private property, the inventor acquires certain claims which in turn grants him the exclusive right;
- This theory provides a strong support in almost all forms of intellectual property;
- The labour theory provides incentives to individuals by offering them recognition for their creativity;
- By encouraging the creators of intellectual property, the creators are inspired to produce and more willing to make his work available to the public;
- The theory holds the view that the inventors have some exclusive rights over their labour for a limited time. Consequently, all persons have a corresponding duty not to cause any harm to the labour of the inventor;
- The theory has more application especially in the case of copyright laws;

- Under the theory the relationship between inventors and their creations are considered more personal because the inventor himself exerts labour to create the work;
- The authors possess the ultimate control over his creations including further modifications and additions.

➤ **Limitations of Labour Theory:**

The labour theory is not free from criticisms. The following are the limitations of this theory:

- **Labour is not a criterion:** Labour alone is not a criterion to justify an intellectual property right.
- **Absence of true intent:** The labour theory does not reflect the original intent of its propounders. The theory is absent regarding the way in which the labour is to be exerted;
- **Intellectual labour:** The theory fails to explain the term 'Intellectual labour'. It does not explain the criteria to measure the exact labour of the inventor;
- **General application:** This theory has only a general application. The exact labour needed with regard to different intellectual properties may vary.
- **Availability of raw materials:** The theory is also silent as to what are the raw materials available to the individuals among the whole resources of mankind in order to produce intellectual property;
- **No proportionality:** The theory lacks proportionality i.e., it does not explain the extent to which an individual possesses his right;
- **Limited application:** The theory gives only a little guidance regarding the intellectual property rights;
- **Returns or incentives:** The theory elucidates only regarding the exertion of labour but it is silent regarding the returns or incentives for the effort.

5.4.3 Social Planning Theory

The social planning theory was propounded by Fisher. In his opinion, the intellectual property rights should promote just and attractive intellectual culture. The attractive intellectual culture includes:

- The welfare of the consumer by harmoniously balancing the incentives for creativity and incentive for distribution and use by others.
- The information and ideas that an individual must possess.
- A wealthy tradition of arts and creativity.
- The individuals should have access to all types of information.
- Freedom to participate in the artistic and cultural activities.
- Respect for one self and others.

The theory provides that the basic aim of intellectual property right should be to discharge welfare and interests of the community at large. Thus the followers of this theory argue that intellectual property is an integral part of social structure and it will ultimately promote the standards of the society.

> Limitations of Social Planning Theory

The social planning theory is also not considered to be a sound theory.

- **Non pragmatic:** The theory has no practical application because most of the inventions and creations are profit oriented rather than cultural development.
- **Domination of social welfare:** Intellectual properties are considered to be private properties. As per this theory general welfare of the society dominates over private properties.
- **Inaccessible information:** It is impossible that individuals can have access all types of information due to different reasons.
- **Limited utility:** The incentives for creativity and use cannot always be balanced as the creations are used by the consumers according to the utility of the creations.

5.4.4 Economic Incentive Benefit Theory

The economic incentive benefit theory elucidates that the legal protection of intellectual properties are indispensable to encourage the inventors of the products and authors of the work to contribute to the creative processes. If such a protection is not granted, it will lead to unjust enrichment by others which will ultimately discourage the inventors to further create. Therefore, this theory asserts that granting intellectual property rights is an important incentive for the creation of novel intellectual capital. Through this intellectual capital the economies flourish.

While granting the intellectual property rights at first the inventor should enjoy economic incentive. In the second phase the industrial establishments gets utilized by this intellectual property whereby the industry develops. The development of the industry leads to the progress of the society as a whole.

This theory is favoured by advocates of free market economics. The theory is based on a supposition that inventors will generally invent or create for the purpose of profit maximization.

The main objective of the economic incentive benefit theory is to grant legal protection in the efficient allocation of economic resources.

> Limitations of Economic Incentive Benefit Theory:

There are several limitations to the economic incentive benefit theory which are:

- **Time Consuming:** The creation of intellectual property is time consuming.
- **Original work:** The theory is applicable only if the work is original and should be an invention.
- **Not cost effective:** The creation of intellectual property needs initial economic investment.
- **Easy to reproduce:** Once the intellectual property is created it can be easily reproduced. Then the theory becomes weak.
- **Difficult to fix application:** There is no idea regarding the extent to which the work can be copied without diminishing its original value.

Self Assessment Question

(Spend 3 minutes)

3) Do you agree with the proposition that economic incentive benefit theory is an adequate one?

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5.4.5 Consideration Theory

The consideration theory is based upon the public good of the community. The consideration theory provides that the inventor, author or creator of a work gets consideration from intellectual property rights in the form of certain legal protections. These protections include the power to control the unauthorized use or exploitation of the product or the work by others. The owner of the intellectual property also gets some additional advantages like right to transfer, right to reproduce the work etc.

The consideration theory further points out that the efforts and pains of a person to invent or create a new work should be protected under law by effective remedies. Moreover, the owner who has spent his time and effort should also be rewarded appropriately as a consideration for his work.

➤ **Drawbacks of Consideration Theory**

The consideration theory even though based on the pragmatic field of intellectual property rights, suffers certain drawbacks.

Suitability and Applicability: The theory is not suitable and inapplicable to modern legal systems.

- **Plurality of protection:** The theory is silent about the case where different intellectual property protection may be available to the same work.
- **Joint ownership:** Some intellectual property may be owned and exploited by individuals jointly. Then the consideration will be divided among all the owners.
- **Non applicability:** This theory is not applicable in the case of traditional forms of knowledge.
- **Ambiguity regarding consideration:** The theory mainly explains about consideration in the form of legal protection but does not reveal the means to measure the consideration in terms of the work.

5.4.6 Personality Theory

According to the personality theory, the personality of the inventor should reflect on the rights granted to his invention or creation. The personality theory of intellectual property rights developed from the Kant's Philosophy of Law and Hegel's Philosophy of Right. In the modern period this theory is elaborated by Radin.

In the view of Kant and Hegel, if a person's work is inseparable from his personality, then there is a dire need to grant protection to such work from unjust enrichment like a physical person is deserving protection.

The principle underlying the personality theory is that a person should have control over the resources of external environment for further development, for being a person. The exponents are of the view that where an object, idea or creation is intertwined by the identity of an individual then the theory is stronger. However, the theory is weaker when a thing is valued by a person at its market price.

Thus the basic principle is that while examining the intellectual property rights, the personality theory gives more importance to the views of inventors and creators than the society as a whole. Moreover the personality theory paved the way to the advancement of biotechnology, property rights in body parts, cell lines and other body products.

The personality theory holds a very important position in elaborating the copyright laws, patents laws etc. The theory provides a very good idea regarding the justifications of intellectual property rights.

Therefore personality theory can be summed up as follows:

- The personality theory is important in satisfying certain human needs and it becomes the duty of the state to protect his rights;
- The theory gives emphasize on the personality of the inventor and his legal rights;
- If the work is indivisible from the personality of the inventor, then it should be protected;
- The theory asserts that a person should have some control over external environment so that he can develop further;
- Where a invention or creation is measured in the name of the inventor, the theory is stronger;
- If the invention is assessed according to the market value, then the theory fails;
- Under the theory, the ideas of the inventor is important and not the society;
- The theory is useful for justifying some areas of the intellectual property rights in an easy way.

➤ **Drawbacks of Personality Theory:**

In spite of certain advantages, the personality theory suffers some drawbacks:

- **Non recognition of specific needs:** The theory fails to identify the specific needs of the individuals and up to what extent these needs or interests are to be protected.
- **Too abstract:** Fisher criticizes the theory that personality theory is too narrow and abstract because it does not provide answers to certain specific questions.
- **Impossibility of inheritance:** If the work of a person is inseparable from his personality, then the right ceases to exist after his death.

- **Difficult to allocate resources:** It becomes difficult to understand what resources are held to be private and what are available to the public.
- **Non applicability:** The theory has no application in an intellectual property like geographical indication, traditional knowledge etc.
- **Lack of incentives:** By applying this theory it is difficult to find out the proportionality of inventions and incentives to the creator.
- **Severability:** This theory is not applicable if the personality of a person is severable from that of the product.

Self Assessment Question	(Spend 3 minutes)
4) What are the basic drawbacks of personality theory?	
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5.4.7 Ecological Theory

The development of science and technology has relatively as well as adversely affected the environment to a large extent. In the modern era, industrialization has led to many negative impacts on the environment due to rapid increase in the industrial activities. During this period certain thinkers have tried to relate intellectual property rights with human environment. Therefore the ecological theories aim to internalize the adverse impacts of science and technology to the environment and stimulate the development of these technologies which will reduce negative effects on human environment.

Thus the ecological theory provides the following:

- To imbibe the harmful effects of technological advancements on the human environment;
- To encourage these developments by reducing environmental harms.

The ecological theorists viewed the entire development should be closely related with intellectual property rights. The intellectual property should be created without affecting the biotic community. Thus the advancement in the field of biotechnology, genetic engineering, stem cell etc. should be developed in such a way that it is in conformity with the environment.

> Drawbacks of Ecological Theories

The following are the main drawbacks of this theory:

- **Limited application:** The ecological theory tried to explain intellectual property in a narrow sense because intellectual properties are connected to human environment. But in reality there are certain intellectual property rights which have no connection with environment. For example, copyright, trade secret etc.

- **Lack of preventive measures:** The theory does not explain the preventive measures to reduce environmental hazards.
- **No correlation:** The development and environment are uncorrelated with one another. It is not always connected with each other as provided under the theory.

5.4.8 Unjust Enrichment Theory

The main propounder of this theory is Gordon. This theory provides that the creators of the work bestow some benefit to the person who uses the creation. Therefore there is a need to compensate the creator up to a socially justifiable point.

The unjust enrichment theory is closely related with the law of restitution. As per this law if a person bestows some benefit with profit motive, he needs to be compensated.

This theory has only limited application in the pragmatic level. Moreover it is also difficult to find out the ratio between the benefit bestowed and the benefit utilised.

5.4.9 Theory of Distributive Justice

The main supporters of this theory are Mill, Singer and Hare. The theory seeks to distribute the resources of the society according to just principles. The theory states that the properties available to the society whether tangible or intangible should be divided according to just and fair manner.

Moreover, if an intangible property is appropriate in a reasonable manner, then it should be adequately compensated to the owner. This process paved the way for the development of new inventions and creations which ultimately benefit the society. The advancement of biotechnology and farmer's rights fundamentally aims to achieve the distributive justice.

The main limitation of this theory is that there is no valid criterion for distribution of resources. This theory also fails to explain about the incentives to the creator of intellectual properties.

5.5 CONCLUSION

The theories of intellectual property rights try to explain the foundations and existence of intellectual properties as a kind of incorporeal property and the ways and means under which the inventors and creators are to be compensated. But no theories constitute comprehensive for the whole system of intellectual properties. Even though some are adequate for the time being, it may be defeated when new principles of intellectual property laws emerge. But the theories are sometimes comprehensive that they provide a particular structure to the intellectual properties.

Moreover there is yet another classification of theories of intellectual property right:

- **On the basis of utilitarian perspective:** Certain thinkers are of the view that the legal protection of intellectual property is based upon the principle

of utility. Under this concept the theoretical foundation of intellectual property rest upon the principle that every invention or creation should bestow maximum happiness to the maximum number of people in a given society which means the inventor has the right to enjoy the fruits of his intellectual skill, at the same time the society has the right to utilize these inventions for their purpose.

- **On the basis of non utilitarian perspective:** The non utilitarian theories also play a vital role in the justifications of intellectual property rights. The western philosophers are of the view that the protections of intellectual property rights are reflected according to the way in which they are designated. Under the non utilitarian approach, the intellectual properties are viewed broader than utilitarian approach. As per non utilitarian perspective the emergence and protection of intellectual property rights are similar to that of private property. This theory provides that the benefit of the intellectual property should move on to the hands of the owner of the creation.

Hence as a matter of fact intellectual properties are the result of the human intellect and the owner should have some benefit out of his efforts which will encourage him for further creations. In the same way the society should also be benefitted from these creations which will help the economy develop in the fields of science, technology, arts etc.

5.6 SUMMARY

- Theories explain wherefrom the particular branch of law originates and its relationship with various spheres of human life. The theories of intellectual property are an inquiry on the evolution of intellectual property laws. Theories of intellectual property rights are the midway between philosophical justifications and political theories.
- The propounder of the utilitarian theory is Jeremy Bentham. The theory of utility rests upon social welfare and development of useful knowledge and innovations available and advantageous to the public at large. The followers of utilitarian theory also argue that intellectual property laws ultimately promote technological advancements which are beneficial to the society.
- The labour theory provides that the basic aim of intellectual property is that a person's productive work gives him the right of property claim. The labour theory derives from natural rights approach.
- The social planning theory provides that the basic aim of intellectual property right should be to discharge welfare and interests of the community at large. The intellectual property rights should promote just and attractive intellectual culture.
- The main objective of the economic incentive benefit theory is to grant legal protection in the efficient allocation of economic resources. According to this theory the legal protection of intellectual properties are indispensable to encourage the inventors of the products and authors of the work to contribute to the creative processes.
- The consideration theory provides that the inventor, author or creator of a work gets consideration from intellectual property rights in the form of certain legal protections.

- The principle underlying the personality theory is that a person should have control over the resources of external environment for further development, for being a person. Under the theory, the ideas of the inventor is important and not the society. The theory is useful for justifying some areas of the intellectual property rights in an easy way.
- The ecological theories aim to internalize the adverse impacts of science and technology to the environment and stimulate the development of these technologies which will reduce negative effects on human environment.
- The unjust enrichment theory provides that the creators of the work bestow some benefit to the person who uses the creation. Therefore there is a need to compensate the creator up to a socially justifiable point.
- The theory of distributive justice seeks to distribute the resources of the society according to just principles. The theory states that the properties available to the society whether tangible or intangible should be divided according to just and fair manner.
- The theories of intellectual property rights are further classified as utilitarian and non utilitarian theories. The utilitarian theory provides that the protection of intellectual property should be based on the principle of utility. The non utilitarian theory provides that the benefit of the intellectual property should move on to the hands of the owner of the creation.

5.7 TERMINAL QUESTIONS

- 1) Write about the theoretical foundations of intellectual property rights.
- 2) Explain Lockean concept of intellectual property rights.
- 3) Distinguish between personality theory and utilitarian theory.
- 4) Economic justifications of intellectual property rights are the creation of market instrumentalism. Comment.

5.8 ANSWERS AND HINTS

Self Assessment Questions

- 1) Political ideology, Economic condition, Moral philosophy, Ethics, Scientific development etc.
- 2) Refer to Sub-section 5.4.1
- 3) Hint-Economic incentive benefit theory suffers certain drawbacks.
- 4) Refer to Sub-section 5.4.6

Terminal Questions

- 1) Refer to Section 5.3
- 2) Hint-Labour Theory of intellectual property rights
- 3) Refer to Sub-section 5.4.6 and to Sub-section 5.4.1
- 4) Refer to Sub-section 5.4.4

5.9 REFERENCES AND SUGGESTED READINGS

- 1) World Intellectual Property Organisation Website
- 2) Poolla R.K. Murthy & K. Prasanna Rai, Some Philosophical Theories on Intellectual Property
- 3) Dr. J.K.Das, Intellectual Property Rights

UNIT 6 INTELLECTUAL PROPERTY AS A TOOL FOR ECONOMIC DEVELOPMENT

Structure

- 6.1 Introduction
- 6.2 Objectives
- 6.3 Intellectual Property and International Economy Order
- 6.4 Intellectual Property and Technological Development
 - 6.4.1 Classical Theories
 - 6.4.2 Endogenous Growth Theory
 - 6.4.3 Exogenous Growth Theory
 - 6.4.4 Schumpeter's Growth Theory
 - 6.4.5 New Endogenous Growth Theories
- 6.5 Intellectual Property as a Tool for Economic Development
 - 6.5.1 Patent Rights and Economic Development
 - 6.5.2 Role of Trademark in the Progression of Economy
 - 6.5.3 Designs as an Instrument of Economic Development
 - 6.5.4 Economic Progress and Geographical Indication
 - 6.5.5 Copyright as a Means to Economic Growth
 - 6.5.6 Contribution of Traditional Knowledge in Economic Progress
- 6.6 Summary
- 6.7 Terminal Questions
- 6.8 Answers and Hints
- 6.9 References and Suggested Readings

6.1 INTRODUCTION

The proprietary right of man is nothing but the aggregate of property rights over his estates and his assets. In other words the proprietary rights can be described as any right or claim which has a fiscal value. The fiscal value of property can be studied under two heads:

- Fiscal value of corporeal property; and
- Fiscal value of incorporeal property.

Intellectual property rights are those rights similar to that of corporeal property. The main peculiarity of property is that it has some economic value. Likewise intellectual property rights also possess some economic value. As we know the tangible properties like land and building, machinery etc. has its own economic value. That economic value may vary according to the usefulness of the object. The economic value of the property depends upon its commercial utility and the other market conditions. The fiscal value of the property is an asset in the hands of the owner of the property. These assets comprising of private or public

property ultimately contribute to the economic wealth of a nation. Intellectual property is not an exception to these principles.

Ideas and knowledge is increasingly becoming important component of trade. In the recent survey it has been observed that 80% of the enterprise assets are relating to Intellectual property and only 20% comes from capital and other assets. Products are no longer sold as low value goods or commodities but include intellectual property contained in patents, designs or trademarks added in their value. Creators of new inventions, designs or trade/service marks are recognized with award of rights to prevent others from using the intellectual property owned by them. These rights are known as 'intellectual property rights' (IPRs). They take different names depending on the type of the intellectual property involved. For example 'patents' for inventions; 'designs' for industrial designs; 'copyright' for books, novels, paintings; 'trademarks/service marks' for logo or brand name of goods and services; and so on.

Intellectual property right is intangible, heritable and capable of being economically advantageous to the owner of that right. One of the fundamental characteristic of properties is that both material and immaterial properties are transferrable. The major difference in the economic aspect of tangible and intangible property is that the former requires commercial possibilities or appealable to eyes and sometimes it is capable of alteration. Whereas, the latter need the requirements like novelty, non obviousness, distinctiveness, capable of industrial application and usefulness.

The intellectual property can be broadly divided into:

- **Industrial property** which includes patents, trademarks, industrial designs and geographical indications;
- **Copyright** which generally refers to literary works such as musical works, novels, and artistic works such as paintings, sculptures and architectural works.

Intellectual property have economic value, contributing to the development of the economy of a nation. Because of the economic importance of intellectual property, every nation pay attention to the codification and standardization of the law relating to their protection and exploitation. The rapid growth in the field of science and technology has resulted in the global utilization of intellectual property rights. The impact of globalization has facilitated international trade and commerce which ultimately boost the world economy. The transfer of technology, knowledge and exchange of technical know-how includes some sort of intellectual labour and ultimately results in the technological and economic development. Therefore, intellectual property generally and particularly paved the way for the development of nation's as well as world economy.

6.2 OBJECTIVES

After reading this unit, you should be able to:

- explain the role of intellectual property in the process of economic development;
- describe the policies of New International Economic Order;

- analyze the role of TRIPS and WTO in the development of intellectual property as a trade and economic prosperity;
- explain the economic benefits imparted to the society through intellectual property rights;
- discuss the economic sectors correlated with intellectual property;
- explain familiar with different economic justifications relating to intellectual property;
- be aware of the basic similarities of corporeal property and incorporeal property in an economic sense;
- explain how the commercial exploitation of intellectual property rights resulted in economic advantages to the owner of the property;
- explain the meaning and importance of patent in promoting technological and business competition giving rise to economic development;
- describe role of trademark in the economic development of the international community;
- acquainted with the legal protection granted to industrial designs and its economic utility;
- explain the use of industrial designs in the development of science and technology;
- be aware of the economic importance of geographical indications;
- explain the role of different areas of copyright in economic progression; and
- explain the influence of traditional knowledge in technological changes and increasing economic wealth of a nation.

6.3 INTELLECTUAL PROPERTY AND INTERNATIONAL ECONOMIC ORDER

The modern international economic order derives its existence from the establishment of New International Economic Order (NIEO) adopted by the United Nations General Assembly in 1974. This in fact covered a wide range of trade, financial, commodity, and debt-related issues which formed the basis of North South dialogue. The Charter of the United Nations states that one of the objectives of the United Nations is to achieve international cooperation in solving international problems of an economic character (Article 1(3)). The New International Economic Order consists of:

- The Declaration on the Establishment of a NIEO of General Assembly Resolution;
- A Programme of Action of General Assembly; and
- The Charter of Economic Rights and Duties of States.

Eventually all these multifaceted negotiations resulted in the expansion of General Agreement on Traffic and Trade GATT with establishment of World Trade Organization (WTO). The Trade Related Aspects of Intellectual Property Rights Agreement (TRIPS) under WTO provides for reorganization the minimum standards of protection for intellectual property. This is based on the principle that

proper, adequate and effective protection must be provided so that enforcement of intellectual property rights does not act as a hurdle to legitimate trade.

The intellectual property is important in international trade because it harmonizes long term benefits and short term costs to societies. This is because the intellectual property encourages creations and inventions in long term. Hence, intellectual property protection encourages production and economic progress. The main objectives of TRIPS includes:

- bringing all international intellectual property agreements under the TRIPS;
- Providing minimum standards for protection to intellectual property rights;
- Settlement of disputes on intellectual property between member countries;
- Special transitional arrangements during the period when the new system is being introduced (Articles 65- 67 of TRIPS).

The protection of intellectual property provides following benefits to the society:

- Encourage disclosure of information;
- Accelerates introduction of new products;
- Encourage transfer of technology;
- Enhancement of knowledge in the related field;
- Provides Knowledge regarding source of goods;
- IP is a tool for economic development.

The Agreement on Trade Related Aspects of Intellectual Property Rights is a multilateral trade agreement binding on all the members of WTO. The main aims of TRIPS Agreement are:

- Set out the minimum standard for the protection and enforcement of intellectual property rights around the world;
- To bring all IPRs under common internationally acceptable rules;
- To strike balance between long term benefits with short term costs to the society;
- Foster amicable settlement of IP disputes through dispute resolution mechanism;
- To address public health concerns.

In addition, the World Intellectual Property Organization (WIPO) is a subsidiary organ of the United Nations with an object to expand opportunities for technical assistance and training. It was established in 1967 and has its headquarters in Geneva. The role of WIPO in the field of economic growth through intellectual property protection is an outstanding one. The main achievements of WIPO in harmonizing national and international protection of intellectual property are studied under various heads:

- Protection and promotion of intellectual property through cooperation among nations and international organizations;
- Maintain administrative cooperation among nations;
- Development of legal and technical assistance in the field of intellectual property;

- Assistance for research in the field of intellectual property;
- Conclusion of different international conventions and national legislations for protecting intellectual properties;
- Encouraging business and industry associations to provide intellectual property services;
- Providing wide-ranging web based information regarding intellectual property matters.

All these functions of the WIPO enable intellectual property management, increase competitiveness and policy considerations among nations. In the modern knowledge based economy, intellectual property has a vital role in the promotion of economic progress of companies and enterprises. This is because intellectual properties are the creation of human intellect. Without protecting and recognizing these private rights, innovations, creations and knowledge will not work and eventually the economy becomes stagnant.

Due to the growing importance of intellectual property in the international economy both in developed and developing countries, there arose a great urge to enact legislations for the protection and implementation of these rights. These protections ultimately accelerate the economic growth of the countries by stimulating research activities, technological and even cultural development. Hence intellectual property is protected at the national as well as global level for the progression of the economy.

6.4 INTELLECTUAL PROPERTY AND TECHNOLOGICAL DEVELOPMENT

The economies of nations are of such a character that different economies either develop faster or perform badly. A detailed analysis shows that technology and knowledge have played a vital role in the economic progression of a country. The importance of intellectual property in facilitating the creation of knowledge is a complete success in the field of economy. In the modern economy, knowledge based property has attained new dimensions and act as a key agent in boosting technology, research and scientific advancements which ultimately paved the way for the economic stability of the international community.

In this scientific era, the following sectors are correlated with intellectual property:

- Science and technology;
- Manufacturing industries;
- Film and audio visual industries;
- Service sectors;
- Bio-technology;
- Cyber space;
- Traditional knowledge;
- Agricultural sector;
- Appellations of origin etc.

The intellectual property rights are therefore closely connected with economy and industrial development. The contributions of intellectual property in the development of economy are based upon different philosophical justifications.

6.4.1 Classical Theories

The main supporters of this theory are Adam Smith, Ricardo, Malthus and Marx. According to the supporters of the classical theory, capital and technological advancements are the two means through which an economy could progress. In the view of Adam Smith, improvement in technology will result in an accelerated growth of labour productivity. He also believed that division of labour will lead to new inventions and creations, the outcome of which is technological advancements.

6.4.2 Endogenous Growth Theory

As per this theory, technological changes in an economy are influenced by previous economic conditions prevailing in a nation. Therefore, technological progress in an economy is endogenous in nature. This theory mainly focuses on:

- Educational sector;
- On-the-job training;
- Technological advancements for the international market conditions.

6.4.3 Exogenous Growth Theory

This theory asserts that during the production process, technological changes will lead to an increased output without any change to the input of labour and capital. Therefore, the theory is exogenous.

6.4.4 Schumpeter's Growth Theory

The economist Schumpeter developed the growth theory based on innovation and entrepreneurship. In his opinion economy is dynamic and not static. The economy is dynamic because of changes in technological innovations. When the entrepreneurs use the new inventions or techniques, the technological innovations changes into economic innovations. If the inventions are not useful to the society, then it becomes economically irrelevant.

6.4.5 New Endogenous Growth Theories

The followers this school of thought believes that the long-term growth rate of a country could be influenced by the following factors:

- Government policies;
- Protection of intellectual properties;
- Taxation;
- Maintenance of law and order;
- Fiscal and monetary policy.

Paul Romer supported the new endogenous growth theory and suggested that accumulation of knowledge was the driving force behind the economic growth of a nation. Romer focused mainly on labour, capital, technology and output and

how these factors collectively contribute to economic development. Grossman and Helpman also supports that the driving force behind investment in new technology was the potential of earning profit.

The philosophical justification suggested by various economists shows that intellectual property is inevitable consequence of economic development. Industrial property like patent, designs, trademark, Geographical Indication and copyright and its neighbouring rights contribute to economic growth.

Self Assessment Question

(Spend 3 minutes)

1) What are the economic justifications of Intellectual Property?

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6.5 INTELLECTUAL PROPERTY AS A TOOL FOR ECONOMIC DEVELOPMENT

The intellectual property rights are intangible assets which are commercially valuable. When comparing with corporeal rights, the intellectual property have some similarities in the following manner:

- Nature of the property;
- Mode of acquisition of the property;
- Nature of ownership of the property;
- Nature of rights of the owner;
- Commercial exploitation of the conferred rights;
- Mode of enforcement those rights;
- Legal remedies available against infringement;
- Transfer of proprietary rights;
- Transmission of properties etc.

The commercial exploitation of intellectual property rights results in economic advantages to the owner of the property. The importance of intellectual property as a factor of economic development cannot be ignored. The most important technological developments over a period of time are the positive impacts of different intellectual property. Hence, the recognition, protection and enforcement of intellectual property rights at international level have gained significant importance. The protection of intellectual property at national level is granted by way of legislations. The strength of protection and enforcement of IPRS at national level influence the technological development as well as creativity and economic prosperity. Intellectual property therefore is considered to be a tool for economic development. However, the roles that intellectual property plays in the economic progress of a nation depends upon the kind of intellectual property and its quantum of exploitation by its nationals.

6.5.1 Patent Rights and Economic Development

Patent is a monopoly right granted by the government to a person who has invented a new and useful article. In other words, it is a grant of some privilege, property or authority made by the government for one or more individuals who invented a new article or new process for making an article. Patents provide incentives to the owner in order to give recognition to their creative work and as a reward for their marketable inventions.

The person to whom a patent is granted is called patentee. The patentee can use his patented product in the same manner as the owner of a corporeal property deals with his property. Hence, the inventor gets exclusive right over his invention.

The main object of patent law is to confer exclusive right to the patentee to gain commercial advantage out of his invention. In India, the law relating to patent is contained in the Indian Patents Act, 1970.

- In the case of *Bishwanath Prasad Radhey Shyam v. Hindusthan Metal Industries*¹ the Supreme Court held that: "The object of patent law is to encourage scientific research, new technology and industrial progress. Grant of exclusive privilege to own, use or sell the method or the product patented for a limited period, stimulates new inventions of commercial utility. The price of the grant of the monopoly is the disclosure of the invention at the Patent Office, which, after the expiry of the fixed period of the monopoly, passes into the public domain."

In order to obtain patent for a product or process the following conditions are to be satisfied:

- The product or process must be new;
- It must be non-obvious;
- It must be useful;
- It must be capable of industrial application.

The patent right gives the owner a protection from market competition which will in turn encourage new inventions. This will also promote technological and business competition giving rise to economic development. Patents can be used to encourage economic progress in the under mentioned ways:

- **Technology transfer and investment:** Once the patent is granted it shall be entered in the register and the controller of patent shall publish the fact that the patent has been granted. Thereafter, the details of the patent shall be open for public inspection. The invention must be disclosed fully in order to enable the public to exploit the invention after specific period provided that the patent should not be infringed. This process facilitates technology transfer and investment and the end result is economic advantage.

Illustration: A multinational company invented a new technology for the exploitation of crude oil from deep sea bed. It is a patentable invention. The company can transfer this technology to yet another nation for monetary consideration because a patent is transferable by means of lease, license

¹ AIR 1982 SC 1444

etc. therefore, patent encourages transfer of technology leading to economic progression.

- **Promotes research and development:** The granting of patent right for a particular invention enables the patentee to exploit his invention for a specified period of time and this will in turn give the patentee an opportunity to obtain monetary benefits from the product. The monetary gains encourage the patentee to make further improvements in the existing product or invent new products by undergoing research. Likewise, new inventions and creations can be utilized for the purpose of developmental activities and technological advancements for a nation.

Illustration 1: Mr. 'X', a doctor invented a new device which can be used as an artificial heart valve. The invention is non-obvious and can be used more economically in treating heart problems. He conducts research in the Institution for Medical Sciences. This invention is patentable and this will promote research among the medical professionals to find out new means and methods for tackling chronic disorders. The research ultimately results in the development of the economy.

Illustration 2: A pharmaceutical company invests money for research in developing a drug for treating a genetic disorder. For this purpose the company appointed researchers who developed a new drug through research process. The drug is novel, non-obvious and capable of industrial application. The new invention will eventually led to economic benefits to the company because the new drug was unique which could treat the genetic disorder. Therefore the company can exploit the invention and indirectly this invention led to developmental process and scientific progress.

- **Activate the development of new technology and commercial activities:** The research activities in the area of telecommunication system and biotechnology resulted in the development of new technologies. These technologies are highly used in telecommunication sector and in the medical field. The granting of patent will accelerate the new technologies and its commercial possibilities.

Illustration 1: A company invented a new device useful for telecommunication which is a patentable invention and has commercial possibilities. The product is advantageous to the people due to its distinct features.

Illustration 2: A pharmaceutical company invented a new genetically engineered drug for treating bleeding disorders. This drug is patentable and can be used instead of blood products. The invention reduces the risk of transmission of unknown pathogens. The invention is commercially viable, leading to economic advantages to the company.

- **Useful for revenue generation:** The patent protection enables the patentee to exploit the patent rights and the right to transfer the patent right by assignment or by license. The transfer of patent right by way of license will be useful for the generation of revenue to the patentee. This will promote commercial possibilities and market competition in the following ways:
 - Foreign direct investment ;
 - Increase in human capital;

- Expansion of human resources;
- Provide job opportunities.

6.5.2 Role of Trademark in the Progression of Economy

Trademark is a visual symbol in the form of a word, a device or a label applied to articles of commerce with a view to indicate the buyers that the goods are manufactured by a particular manufacturer as distinguished from similar goods manufactured by others. The Trademarks Act, 1999 defines a trademark as “A mark capable of being represented graphically and which is capable of distinguishing the goods or services of one person from those of others and may include shape of goods, their packaging and combination of colours” (Sec. 2 (zb)). The trademark includes a “**Certification Trademark**” and “**Collective Mark**”.

The trademark also plays a pivotal role in the fostering economic prosperity. The main aim of trademark is to distinguish similar kind of goods in the market which ultimately help the consumer to identify the manufacturers of the best quality goods. By this way trademark promotes consumer satisfaction and demand and supply of goods and services.

The role of trademark in economic development is particularly seen in the consumer market. The quality of the goods and services promotes business and the end result is economic advantage. In the modern period, the consumers are aware about their rights and unhealthy competitions in the market. The trademark influences the economic development under several ways:

- **Identifies the product and its origin:** The trademark is capable of identifying the product and the manufacturer of that product by its unique mark. This will help the customers to find out quality goods available in the market.

Illustration: The products of Parker are easily identifiable originating from the company manufacturing pen and marketing that product under that mark.

- **Guarantees quality products:** The quality of the products play an important role in the market. The mark associated with the products indicates the quality of product.

Illustration: The chocolate diary milk is produced by Cadbury which produces different varieties of diary milk chocolates. The mark indicated in the packet assures the quality of the product.

- **Trademark advertises the product:** The trademark associated with a particular product advertises the product and this will help in marketing the product.

Illustration: The trademark Whirlpool is associated with home appliances. The trademark associated with whirlpool helps to advertise the product and distinguishes similar goods from other manufactures.

- **Act as a catalyst in marketing techniques:** Trademark associated with a particular product indicates the trade origin and the quality goods. A new model introduced by the company can be easily marketed by using distinct trademark.

Illustration: Panasonic introduced a new television having unique features. The product can be marketed by using its trademark 'Panasonic'.

- **Increase customer loyalty:** The trademark increases the faith of customers towards a product manufactured under a trademark because trademark assures quality products.

Illustration: The trademark LG assures the customers that the product is of good manufactures and hence increases customer loyalty.

- **Increases profitability:** The trademark stimulates marketing techniques and customer satisfaction by assuring quality products. This will generate more supply of goods, increasing profit to the company.

Illustration: The products of Nestle guarantees quality of products and increases demand and supply in the market. Therefore, the company gets profit.

- **Prevents unfair competition:** The trademark protection enables the owner to take legal action against unauthorized use of his products as well as the goodwill. Therefore it will help to reduce unfair competition in the market, ultimately leading to economic development.
- **Trademark reflects the product:** The trademark reflects an image of the product in the minds of the consumers. The consumers are attracted towards the product because of the goodwill of the company. The customer gets a picture regarding the product when seeing its trademark.

Illustration: When the trademark 'Nescafe' is indicated in the coffee powder, the customer gets an image regarding the product and it will promote demand and supply.

- **Differentiate similar kind of goods:** By applying trademark to a product the consumers can easily identify similar kind of goods. This will help sales promotion of quality goods resulting in economic benefits to the manufacturer. The customer also gets the chance to choose an economically viable product.

Illustration: The companies 'Sony' and 'Samsung' produce laptops under its trademark. Both have its own unique features. The trademark helps the consumers to identify the desired laptop.

- **Encourage licensing programmes:** Trademarks are transferrable rights by way of license and assignment. The right to transfer will enable the owner to get monetary benefits. Moreover this feature of trademark encourages licensing programmes. Eventually, it will result in monetary transactions.
- **Initiates new products:** The chance to identify quality goods using trademarks will encourage the consumers to invest more on the product. Thereby, the profitability of the company increases. Hence, the company will initiate new products under the same trademark.
- **Encourage collaborations among business community:** When a company's trademark strikes the market, the product under that trademark will get more monetary benefits. This will encourage other companies to have joint ventures with that company. These collaborations among business community will accelerate economic development. This tendency is more apparent in case of pharmaceuticals. The trademark is also a basic element of franchising.

The trademark is an effective tool for economic development. It is an intangible asset in the hands of the owner of the mark. The owner can transfer this asset for monetary considerations and start new business ventures. The impact of trademark in the market and service sectors is very crucial in the development of economies. But if the products sold and services are not up to the expectation of the consumers, then the trademark fails.

6.5.3 Designs as an Instrument of Economic Development

Industrial designs are also a type of intellectual property right which has economic value. When similar products are competing in the market, design is the deferential. The legal protection of industrial designs paves the way in the development of innovative and eye catching designs. The legal protection of designs accelerates industrial progress and fosters the economy. As per Section 2(d) of the Designs Act of 2000 'design' includes the following:

- Some shape;
- Configuration;
- Pattern;
- Ornament;
- Composition of lines;
- Colours applied to any article.

The design may be two dimensional or three dimensional or in both forms, by any industrial process or means, whether manual, mechanical or chemical, separate or combined, which in the finished article appeal to, and are judged solely by the eye.

For getting a design registered it should be new and original. Normally designs are related to article which means that any article manufactured and any substance, artificial or partly artificial and partly natural and includes any part of article capable of being made and sold separately. The person who makes the original design is known as the author of the design. He has the exclusive right conferred on a design which is termed as 'copyright in a design'.

The author of the design has the right to assign and transfer his right for good consideration by way of license, mortgage etc. This creates economic transactions and in due course industrial development and technological advancement would happen. Moreover, a design is not registrable if it is not distinguishable from known designs or combination of known designs. Therefore, there will be only one design for a product helping the consumers to identify the product. This will encourage demand for certain products which, in turn grants profit to the economy.

Illustration: A manufacturer has a registered design in bottles having distinctive design. The owner of the registered design can use it for commercial purposes and he will get economic benefits from that product. In such a case unauthorized use of design amounts to piracy of registered design.

There are certain benefits available to the registered proprietor of an industrial design under the Designs Act, 2000. These include:

- **Copyright on registration:** The proprietor of the registered design gets copyright on the design up to ten years from the date of registration as per Section 11(1) of the Designs Act, 2000. The proprietor is the exclusive user of the design during this period. According to Section 11(2) of the Act, the owner also gets the opportunity to extend the copyright up to a period of five years. However, the registered article must carry the word 'registered' along with the registration number. Moreover the design must registered with the controller of designs.
- **Protection from piracy:** Piracy of registered design means the infringement a copyright in design. As per Section 22 of the Designs Act, it shall be unlawful if any person without the consent or license of the registered proprietor of designs, use the design for any fraudulent or obvious imitation, imports for the purpose of sale, publish or expose or cause to be published or exposed for sale that article. The registered proprietor has the right to claim damages under Section 22(2)(a) and can move a suit for injunction as per Section 22(2)(b) of the Designs Act, 2000.

Since the proprietor of the designs gets legal protection, he can use the design for commercial purposes. This will enable him to make economic advantages out of the design and also he gets the right to transfer his right by way of license and earn economic benefits.

Self Assessment Question

(Spend 3 minutes)

2) Explain the features of design.

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6.5.4 Economic Progress and Geographical Indication

Geographical indication is a name or sign used on certain products or goods that have been originated in a particular geographical region. Geographical indication denotes that the product originates from a particular place and the product has a reputation or certain qualities because the product derives its qualities and reputation from that place. The economic importance of geographical indication as kind of intellectual property is as under:

- **Place of origin:** The products originate from a particular place. The climate and soil influence the agricultural products. However, it is not limited to agricultural products. It may also cover specific qualities of a product that are due to human factors such as manufacturing, skills and traditions. The place of origin may be a village, town or a particular region. Due to the peculiarity of the place of origin, the consumers prefer to buy that product. For example, 'Darjeeling' indicates tea of Indian origin.
- **Quality products and reputation:** The product acquires quality and reputation from the place of origin of the product. The reputation and quality of the product result in the increase in demand of the product. Hence it is economically viable to the producers and in turn benefits the society.

- **Represents common heritage:** It represents a common heritage of the community of producers in the geographical region or locality. The geographical indication may be used by all the producers engaged in their production in that region or locality. All the producers enjoy the same quality and features of that geographical indication.

Geographical indication act as mediator between the product and its place of manufacture. Geographical indication creates a strong impulse in the minds of the consumers which will enhance the demand and supply of the product as in the case of trademark. When a region is famous for its quality products, then geographical indication creates a strong marketing power to those goods. This is because geographical indications are basic tool for regional or community based economic progress.

The emergence of new technologies and internet have also contributed to wide spread awareness about certain products which derives its quality from certain geographical areas. The geographical indication may be the goods of agricultural, natural or manufactured goods, handicraft and industry goods like food stuffs. The qualities depend on geographical place of production.

The fundamental difference between geographical indication and trademark is that the former denote the place of origin of the goods whereas the latter is used by an enterprise in relation to goods or services to distinguish them from those of others.

Illustration: In India, Darjeeling tea offers distinctive characteristics of quality and flavour which is the outcome of the combination of geographical origin and processing. The Tea Board of India has applied for registration of the words 'Darjeeling' and 'Darjeeling logo' under the Geographical Indications of Goods (Registration and Protection) Act, 1999 which came into force on 2003.

Illustration: The textile cluster of Pochampally near Hyderabad has recently registered Pochampally Ikat under the Geographical Indications Act.

Some other examples of geographical indications are Mysore Sandal Soap, Coorg Orange, Tirupathi Laddu etc.

Illustration: Tequila, a Mexican drink which has a distinct identity, was registered as a geographical indication under the Lisbon Agreement in 1978. It enables the producers to market the product all over the world. Today its supply has increased and it gives direct employment to agricultural workers, technicians and other workers as well as indirect employment to many more in transportation, distribution and other related activities.

Self Assessment Question	(Spend 3 minutes)
3) What is the economic importance of geographical indication?	
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6.5.5 Copyright as a Means to Economic Growth

Copyright is a protection available to the authors, composers, artists and designers for creating original works. It is a form of intellectual property which provides exclusive rights to the creators to use or authorize others to use their works. As per Sec. 14 of the Copyright Act, 1957 'Copyright' means the exclusive right to do or authorize others to certain acts in relation to:

- Literary, dramatic and musical work;
- Artistic work;
- Cinematograph film; and
- Sound recording.

Copyright is the creation of a statute and it stands as a unique form of intellectual property. It creates a monopoly right restraining others from exercising that right and a negative right preventing others from copying or reproducing the work. Another peculiarity of copyright is that it is not a single right and it consists of a bundle of different rights in the same work. Moreover, copyright consists of the right to works derived from the original works including economic rights and moral rights.

Copyright is considered as one of the most significant catalyst in the economic progression. Copyright is a transferable right and the owner can transfer his rights by way of license, lease etc. for monetary consideration. Copyright is considered as a group of rights which in turn enable the development of related industries.

Illustration: Copyright subsists for cinematograph film and the producer is the owner of copyright. He can make a copy of the film including photograph of any image forming part of that film, sell or give on hire any copy of the film. He can also communicate the film to the public. This will generate economic advantage in the film industry and the artist will get monetary benefit for their performance and several other people will also get benefitted from jobs and related works.

The legal protection of copyrights has developed economic advantages to the following sectors:

- **In the case of literary work:** The author has the exclusive right to exploit his work. For example, the author has the right to reproduce the work in any material form, and he can make translation of the work and also the right to adaptation of the work. These rights will ultimately result in economic advantage to the author as well as the community as a whole.
- **In the case of artistic work:** The author has the right to communicate and issue copies of the work to the public and he can reproduce the work in any material form. He can include the work in any cinematograph film and can make adaptation of the work. Then the work will have more public access which will generate income for the author. The society also gets economic benefit through various means by promoting related industries including job opportunities in the related fields.
- **In the case of cinematograph film and sound recording:** The author can make a copy of the film, sell or give on hire any copy of the film for monetary considerations. Eventually, this process produces more financial

benefits and creates employment opportunities. Moreover, it leads to the development of related industries, which is also useful for developing the economy.

- **In the case of computer programmes:** Computer programme means “a set of instructions, expressed in words, codes, schemes, or any other form including a machine readable medium capable of causing a computer to perform a particular task or achieve a particular result” (Section 2 (ffc) of the Copyright Act, 1957). The software and computer programmes are capable of reproduction, storage and translation, selling, giving on hire, offering for sale or hire any computer programme. Computer software is considered as a computer programme which falls under the category of literary work.

In the case of computer software licenses the main difference between intangible property and tangible property is that, in the case of former a person can buy only software license. But that person has no right to alter or make any change to that software instead he can simply use it. While in the case of latter, a person can make any alterations to the property including alienation.

In the modern period, technological developments in the field of media, telecommunication technology and information technology brought about drastic changes in the field of copyright, cultural industries and even economy. One of the most important contributions of technology to protect copyrights is ‘encryption’ which is used to stop digital piracy. The WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty contain special provisions for the technological protection of copyright works. All these factors have led to the economic growth of the international community.

6.5.6 Contribution of Traditional Knowledge in Economic Progress

Traditional knowledge as a kind of intellectual property gained recognition in the recent period. The emerging importance of traditional knowledge focused the attention World Intellectual Property Organization. As per WIPO the term traditional knowledge refers inventions and creations based on tradition which is the result of intellectual activity in the following areas:

- Industrial;
- Scientific;
- Literary;
- Artistic fields.

Traditional knowledge is generally transmitted from generations to generations and concerning to particular people. The world wide recognition of traditional knowledge has necessitated the urge to increase the economic value of traditional knowledge as an intangible asset. Traditional knowledge is considered as the master of all intellectual property rights because it is correlated with all other intellectual properties in one way or the other. Almost all the intellectual properties originate from traditional inventions, knowledge and creativity.

The owners of traditional knowledge are expected to explore the commercial possibilities and the pragmatic aspects of traditional knowledge. This can be

done by utilizing traditional knowledge into different intellectual properties like patent, trademark, copyright, geographical indication and even clubbing with other traditional knowledge.

The economic importance of traditional knowledge are:

- **Intangible asset:** Traditional knowledge can be considered as a form of intangible asset due to its economic value.
- **Source of income:** Traditional knowledge enhances food production and health care. The report of WHO reveal that 80 percent of the world population depends upon traditional medicines for their primary health needs and this will generate economic profits to the holders of traditional knowledge.
- **Ecological benefits through agriculture:** The application of traditional knowledge in the agricultural sector promotes sustainable development of agriculture in the following ways:
 - Promotes the importance of agriculture;
 - Implement traditional knowledge in the usage of agricultural land;
 - Efficient utilization of labour;
 - Effective management of insects without using chemical insecticides;
 - Maximum production with minimum resources;
 - Maximum profit with low levels of techniques;
 - Accelerates income generation.

In addition, traditional knowledge can be applied to human environment under the following ways:

- a) Management of epidemics;
 - b) Healthy food and lifestyle;
 - c) Sustainable use of resources etc.
- **Role in other fields:** The application of traditional knowledge in the field of biotechnology, pharmaceuticals, agricultural and other fields have contributed to the advancements in scientific, economic and cultural fields to a large extent.

Traditional knowledge directly and indirectly influences other areas of intellectual property rights and it instigates the promotion of several intellectual properties. Hence, the traditional knowledge individually and collectively with other forms of intellectual property rights creates industrial progress, technological advancements, transfer of knowledge and by this means achieving economic development.

6.6 SUMMARY

- The main peculiarity of property is that it has some economic value. The intellectual property rights can be broadly divided into industrial property rights and copyrights. All these categories of intellectual properties have economic value, contributing to the development of the economy of a nation.

- The policies of NIEO resulted in the development of World Trade Organization (WTO). The Trade Related Aspects of Intellectual Property Rights Agreement (TRIPS) of WTO exclusively deals with the minimum standards of protection for intellectual properties.
- The intellectual properties are important in international trade because it harmonizes long term benefits and short term costs to societies.
- The knowledge based properties have attained new dimensions and act as a key agent in boosting technology, research and scientific advancements helping economic stability of the international community.
- The contributions of intellectual property in the development of economy are based upon different philosophical justifications.
- The patent right gives the owner a protection from market competition which will in turn encourage new inventions. This will also promote technological and business competition giving rise to economic development.
- The quality of the goods and services promotes business and the end result is economic advantage. The impact of trademark in the market and service sectors is very crucial in the development of economies.
- There will be only one design for a product helping the consumers to identify the product. This will encourage demand for certain products which, in turn grants profit to the economy.
- Geographical indication denotes that the product originates from a particular place and the product has a reputation or certain qualities because the product derives its qualities and reputation from that place.
- The technological developments in the field of media, telecommunication technology and information technology brought about drastic changes in the field of copyright, cultural industries and even economy.
- The traditional knowledge independently and collectively with other forms of intellectual property rights creates industrial progress, technological advancements, transfer of knowledge and achieves economic development.

6.7 TERMINAL QUESTIONS

- 1) What are the importance of intellectual property in the international trade?
- 2) Discuss the influence of patent right in the development of economy.
- 3) Differentiate the economic contributions of copyright and trademark.
- 4) Traditional knowledge is an effective tool for economic progress. Elucidate.

6.8 ANSWERS AND HINTS

Self Assessment Questions

- 1) Hint: Classical Theories, Endogenous Theory, Exogenous Theory, Schumpeter's Growth Theory, New Endogenous Theories etc.
- 2) Hint: Sec. 2(d) of Designs Act, 2000
- 3) Refer to Sub-section 6.5.4

Terminal Questions

- 1) Refer Section 6.3
- 2) Refer Sub-section 6.5.1
- 3) Refer Sub-section 6.5.2 and Sub-section 6.5.5
- 4) Refer Sub-section 6.5.6

6.9 REFERENCE AND SUGGESTED READINGS

- 1) Encyclopedia of Intellectual Property Rights, Indian Institute of Intellectual Property Rights, Ed. 2008.
- 2) Dr. B.L Wadhwa, Law Relating to Intellectual Property Rights, 4th Ed. 2007.
- 3) Dr. J.K Das, Intellectual Property Rights, 1st Ed. 2008.
- 4) WIPO website.

UNIT 7 CHANGING DIMENSIONS OF IPR

Structure

- 7.1 Introduction
- 7.2 Objectives
- 7.3 Changes in the Intellectual Property Regime
 - 7.3.1 Definition of Intellectual Property: Transition from Traditional to Modern
 - 7.3.2 Emergence of New Intellectual Property Rights: A Global Scenario
 - 7.3.3 Influence of Global Changes in the National Level
- 7.4 Influence of Intellectual Property Regime in Different Countries
- 7.5 Intellectual Property, Technology and Law
- 7.6 Protection of Plant Varieties and Traditional Knowledge: An Emerging Area of IP
 - 7.6.1 Protection of Plant Varieties and Farmer's Rights
 - 7.6.2 Role of Traditional Knowledge in Transforming IP System
- 7.7 Layout-Designs of Integrated Circuits as an Emerging IP
- 7.8 Undisclosed Information and IPR
- 7.9 IPR Enforcement Mechanisms
 - 7.9.1 Enforcement under International Law
 - 7.9.2 National Enforcement Measures
- 7.10 Summary
- 7.11 Terminal Questions
- 7.12 Answers and Hints
- 7.13 References and Suggested Readings

7.1 INTRODUCTION

Intellectual property rights are those legal rights which are granted for the creations of human intellect. The importance of intellectual property rights as a kind of commercial intangible property was recognized even in the ancient period. This right is recognized in one form or the other in different parts of the world.

In Venice the skilled artisans enjoyed certain privileges for their creations. It was considered that the first patent was granted to a German in Venice in the year 1409. The Roman Empire also grants monopolies for certain intellectual creations. Moreover, in the ancient Greek some privilege was given to cooks to exploit the method of cooking. This creates a positive attitude to the British and the French system. Subsequently, the French system influenced the American system and now it is one of the most developed systems of intellectual property laws in the world. The developing countries have given legal recognition to these rights even in the 17th century.

The industrial revolution in the 18th century brought drastic changes in economic, social and cultural fields by the influence of certain factors like:

- Agriculture and farming;
- Manufacture and production;
- Transportation;
- Technology;
- Innovations etc.

Moreover, the industrial revolution also raised the importance of intellectual properties in certain areas like textiles, power, transfer of knowledge etc. These developments ultimately resulted in the universal recognition of intellectual properties and many countries granted legal protection to the innovations and creations. In the beginning of the 19th century the world witnessed tremendous changes in the technological sector.

The technological advancements are correlated with the intellectual property in one way or the other. The main relation between intellectual properties and technological revolution are:

- Accelerate modern economic growth;
- Promote research activities;
- Act as a catalyst in the technological progress;
- Promote technology transfer;
- Raise social values and traditions.

The influence of the intellectual properties gives rise to new questions to the technologically changing society. This resulted in the legal recognition of different forms of intellectual properties all over the world. In addition many new kinds of protection in the field of intellectual properties have also developed in the recent period and many more yet to be recognized. Hence the intellectual properties have attained new dimensions in the international legal sphere.

7.2 OBJECTIVES

After reading this unit, you should be able to:

- describe the historical evolution of intellectual property rights in the world;
- explain the dynamic role of intellectual property in the society;
- discuss the changes in the intellectual property regime in the international sphere;
- analyse the new types of intellectual property and the protection granted to it;
- explain the changes in the international protection and recognition of intellectual property rights;
- explain the enforcement mechanisms under the international and national level and the international organizations for the protection of intellectual properties;
- describe the need to protect farmers right as an emerging area in intellectual property;
- explain the importance of traditional knowledge in developing intellectual property system;

- familiar with layout designs of integrated circuits and its proprietary value;
- acquainted with undisclosed information and intellectual property protection;
- elucidate the changing intellectual property rights in the digital era.

7.3 CHANGES IN INTELLECTUAL PROPERTY REGIME

The intellectual property rights like any other right have undergone tremendous changes in the international and national spheres. The industrial revolution is one of the key elements that paved the way for the use of intellectual property as a tool for competitive development and the worldwide recognition of these rights. The industrial revolution resulted in the progression of industries, technology, economies etc.

7.3.1 Definition of Intellectual Property: Transition from Traditional to Modern

In the earlier period, intellectual properties were classified into:

- **Industrial property:** The patents, trademarks, industrial designs, semi conductor integrated circuit and appellations of origin are considered to be industrial property.
- **Copyright:** The copyright include literary, dramatic artistic, musical work which also include printing, communication, entertainment and computer industries.

During the modern era, the traditional meaning of industrial property expanded its scope in various dimensions. Article 1(2) of the Stockholm text (1967) of the **Paris Convention for the Protection of Industrial Property, 1883** (revised and amended several times states that “the protection of industrial property has as its object patents, utility models, industrial designs, trademarks, service marks, trade names, indications of source or appellations of origin, and the repression of unfair competition”.

With establishment of the World Intellectual Property Organization (WIPO) the traditional definition of intellectual property was extended to include other rights. According to **Article 2 (viii) of the WIPO Convention, 1970** “intellectual property” shall include the rights relating to:

- Literary, artistic and scientific works;
- Performances of performing artists, phonograms, and broadcasts;
- Inventions in all fields of human endeavor;
- Scientific discoveries;
- Industrial designs;
- Trademarks, service marks, and commercial names and designations;
- Protection against unfair competition; and
- All other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.

World Trade Organization (WTO) has also defined the term intellectual property rights. Intellectual property rights in TRIPS agreement are divided into two main groups: 1. **Copyright and rights related to copyright and industrial property**

- 1) **Copyright and rights related to copyright:** The rights of authors of literary and artistic works (such as books and other writings, musical compositions, paintings, sculpture, computer programs and films) are protected by copyright, for a minimum period of 50 years after the death of the author.

Also protected through copyright and related (sometimes referred to as “neighbouring”) rights are:

- The rights of performers (e.g. actors, singers and musicians);
- Producers of phonograms (sound recordings); and
- Broadcasting organizations.

The main social purpose of protection of copyright and related rights is to encourage and reward creative work.

- 2) **Industrial property basically** includes inventions (patents), trademarks, industrial designs, and geographic indications of source

- Inventions are protected by Patents
- Creative industrial goods designs are protected by Industrial designs registration
- The protection of distinctive signs, (which distinguish the goods or services of one undertaking from those of other undertakings) are protected by trademarks, service marks
- Geographical indications (which identify a good as originating in a place where a given characteristic of the good is essentially attributable to its geographical origin).

➤ **IPRS covered under TRIPS**

The **Trade Related Aspects of Intellectual Property Rights (TRIPS)** also defines intellectual property rights. In view of that “intellectual property” refers to all categories of intellectual property that are the subjects of Sections 1 through 7 of Part II of TRIPS Agreement. Hence, according to the TRIPS Agreement intellectual property includes:

- Copyright and related works (Article 9-14 of Sec. 1);
- Trademarks (Article 15-21 of Sec. 2);
- Geographical Indications (Article 22-24 of Sec. 3);
- Industrial Designs (Article 25-26 of Sec. 4);
- Patent (Article 27-34 of Sec. 5);
- Layout designs (topographies) of integrated circuits (Article 35-38 of Sec. 6);
- Protection of undisclosed information (Article 39 of Sec. 7).

The concept of intellectual property rights have undergone drastic changes from the traditional definitions and have included variety of rights under protection.

In the traditional definition only two broad types of intellectual property were discussed viz; industrial property and copyright.

Self Assessment Question	(Spend 3 minutes)
1) State traditional classification of intellectual property.	
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7.3.2 Emergence of New Intellectual Property Rights: A Global Scenario

In recent times the intellectual property gained multi facets among the international community. Many international agreements that are being administered by WIPO have undergone changes according to the developments in the individual creativity and knowledge. A complete analysis of the definitions shows that the scope and ambit of intellectual property is very dynamic and it is being continuously revised to give modern outlook for intellectual property rights. The intellectual property rights gained new dimensions in the modern globalised economy through different means. The concept of intellectual property rights expanded its scope in the recent period due to the recognition and protection of certain new varieties of intellectual properties like:

- Trade secrets;
- Farmer’s rights;
- Lay out designs (topographies) of integrated circuits;
- Computer programmes and software;
- Appellations of origin
- Utility patents /petty patents /utility model
- Domain names

Even the scope of protection within the specific category is getting enlarged to accommodate new technical or other fields. For example patents are available for biotech inventions, genetically modified microorganisms (GMOs),plants, computer programmes, business methods in various jurisdictions. Copyrights are granted on software. Service marks are covered under trademarks. This has resulted in diverse IP legislations. Need for harmonization also arose as early as in 1887 when Paris convention for protection of industrial property was signed.

Now there are several multi lateral treaties on IPRs. They are:

- The Paris Convention for the Protection of Industrial Property, 1967
- The Berne Convention, 1971
- The Washington Treaty on Intellectual Property in respect of Integrated Circuits, 1989
- UPOV International Convention for the Protection of New Varieties of Plants, 1981

- Budapest treaty on microorganisms
- Trademarks Law Treaty
- Universal copyright treaty
- Patent cooperation treaty
- TRIPS 1995

➤ **IPRS and Human rights**

The intellectual properties are manmade because it is the outcome of intellectual skill and knowledge of a person or a community as a whole. Intellectual properties are closely connected with human rights. Moreover these rights are private rights available only to the owner or holder of the invention. Due to the importance of intellectual property the **Universal Declaration of Human Rights** recognized these rights under **Article 27** which states that “Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author”.

➤ **Harmonization and IPRs**

The diversity in nature and extent of intellectual property legislation has resulted in efforts by various organizations to harmonize them to minimize conflict among the nations in relation to intellectual property matters. Signing of TRIPS agreement resulted in establishment of minimum standards for protection and enforcement of IPR. Most of the countries have now tuned their legislation to the requirement of protection and enforcement as envisaged under the TRIPS.

Various other multilateral conventions existing at the time of signing of TRIPS were included within the TRIPS agreement under the provision of Article 2. These agreements includes Paris Convention (1967), the Berne Convention (1971), the Rome Convention and the Treaty on Intellectual Property in Respect of Integrated Circuits. It also clarified that for the purposes of Articles 3 and 4, “protection” shall include matters affecting the availability, acquisition, scope, maintenance and enforcement of intellectual property rights as well as those matters affecting the use of intellectual property rights specifically addressed in this Agreement.

Self Assessment Question

(Spend 2 minutes)

2) What are the new trends in the IPRs?

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7.3.3 Influence of Global Changes in the National Level

India as member of World Trade Organization has signed TRIPS Agreement in 1995. India has made changes to the existing intellectual property laws and incorporated new provisions according to the changing circumstances. Some of the major statutes relating to intellectual properties are as follows:

- The Patents Act, 1970 which was amended in 1999, 2002 and 2005 and The Patents Rules, 1972;
- The Trademarks Act, 1999 which is the successor of the Trade and Merchandise Act of 1958 and Trademarks Rules, 2002;
- The Copyright Act, 1957 and the subsequent amendment Acts in 1994 and 1999 and the Copyright Rules, 1958.
- The Geographical Indications of Goods (Registration and Protection) Act, 1999 and its Rules 2002;
- The Designs Act of 2000 and its rules in 2001;
- The Protection of Plant Varieties and Farmer's Rights Act, 2001 and its rules in 2003;
- The Biological Diversity Act, 2002 and the rules in 2004;
- The Semiconductor Integrated Circuit Layout Design Act, 2000 and the rules in 2001.

Further the Intellectual Property Appellate Board has been constituted to deal with disputes relating to patents, trademarks and GI matters except infringement matters to the exclusion of High Courts. Hence, at the national level also changes have been incorporated in order to streamline intellectual property system.

7.4 INFLUENCE OF INTELLECTUAL PROPERTY REGIME IN DIFFERENT COUNTRIES

Intellectual Properties are considered as an important tool for economic development. Intellectual properties are the products of human skill and labour. In the globalised era the world nations accepted the importance of intellectual property and took possible steps for the international harmonization of intellectual property laws. The reason for the wide acceptance of intellectual property regime is that it accelerates free flow of capital and labour including technology internationally. In addition, it generates market power and encourages joint ventures and technology licensing contracts. These advantages of the intellectual property system have contributed to the economic progression in different economies of the world.

For example, in the later half of the 19th century, Chinese Government recognized the need for the structural change in the existing economic policy. As a result, the Chinese government took innovative steps to reform their traditional pattern of economic outlook. Intellectual property rights act as a key factor in the economic prosperity of a nation. Henceforth, China undertook measures to reframe their existing intellectual property laws in copyrights, trademarks patent etc. and also adopted protection for new plant varieties and integrated circuits. China joined almost all intellectual property related treaties and acceded the agreement with WTO members in par with TRIPS. This enabled a change in the Chinese economic system in the following ways:

- 1) Liberalize the national laws for promoting research and innovations;
- 2) Facilitate foreign direct investment for economic development;

- 3) Steps for the protection of trade secrets;
- 4) Changes to the existing intellectual property related laws in tune with international standards;
- 5) Amplification of job opportunities and optimum utilization of human resources;
- 6) Facilitate international trade;
- 7) Progression in information technology, biotechnology etc.;
- 8) Efforts to enhance the flow of knowledge.

These reforms supported China in dynamic gains in acquiring new technologies and innovations. The recognition of intellectual property rights generated a favourable business condition in the Chinese market.

In Japanese economy also intellectual properties have attained special attention in the modern period. Japan is a party to all major intellectual property conventions and adopted changes in the patent, trademark, designs as well as utility model laws. The utility model laws are similar to patent laws and the main purpose of this law is to grant short term monopoly right to the inventor to use the product for economic advantage. The utility model law was enacted in 1905 (which was revised in the year 2005) for the purpose of supplementing patent system and it is one of the oldest forms of legal protection in Japan. This is similar to 'Gerbrauchsnuster' of German and Austrian utility models and 'Petty Patents' of Indonesia.

After 2002, Japanese approach towards intellectual property has undergone tremendous changes by enacting the basic legislation on intellectual property. The main purpose and object of this legislation was to modernize Japan into an IP-based nation. The outcome of the IP-policy of Japan increased the number of granted patents, research and development, technology transfer, trade and licensing contract etc. It shows that there is a clear correlation between intellectual property and economic growth in Japan.

Another example is with regard to the economic progress in Korea as a result of reforms in intellectual property laws. After 1990s Korea managed to develop the intellectual property system through various methods:

- 1) Research and development improved technological capability;
- 2) Domestic invention increased rapidly;
- 3) Favourable patenting policies for improving innovations.

As a result, international transfer of technology and local market for technology also developed. Recently, Korea amended its intellectual property system by including biotechnology as well as business method inventions. The major outcomes of these reformations in the Korean economy were:

- 1) Development of new Intellectual properties;
- 2) Flourishing business activities;
- 3) Rise in Foreign Direct Investment;
- 4) Growth in research and development and gross domestic product of Korea.

All these factors indicates that the development of intellectual properties have strengthened the Korean economy.

Intellectual property have played an important role in developing the national and international economy through different means like research and development, technology transfer, foreign direct investment etc.

7.5 INTELLECTUAL PROPERTY, TECHNOLOGY AND LAW

Research and technological developments, Intellectual property, and its legal protection are interconnected. Intellectual property acts as a catalyst in the promotion and transfer of technology. Of late, intellectual property laws are suitably adjusting to the advancement in science and technology cover new branches of knowledge like biotechnology, bioinformatics, micro electronics etc.

The technological advancements expanded the scope and ambit of intellectual property rights in a multi facet way. For example, the advancements in science and technology made possible changes in inventions relating to life forms. The question of patentability of new life forms is a controversial issue. A mere discovery of a new life form is not patentable. However, a genetically modified novel life forms are patentable because it act in a different mode. Genetically modified genes are used in the production of medicines as well as treating genetic disorders and melignancies are some of the examples.

The business method patents are new generation patentable subject matter which stands a predominant place in the present day patent law. Business method patents are those patents available to new methods of business. These patents are usually available in banking and insurance sector, e-commerce etc. The famous judicial approach in this regard was in the case of *State Street Bank v. Signature Financial Group, Inc.*¹ In this case the Court has sustained the patantability of a computerized system for managing a financial portfolio in an innovative manner, as a patentable subject matter.

Moreover, in India, computer software is protected by the Copyright Act, 1957. As per Sec.2 (ffc) of the Copyright Act "a computer programme is a set of instructions expressed in words, codes, schemes or in any other form including a machine readable medium capable of causing computer to perform a particular task or achieve a particular result". Computer software falls under head computer programme within the meaning of Copyright Act.

In addition, Article 10 of the TRIPS Agreement states that "Computer programs, whether in source or objects code, shall be protected as literary works under the Berne Convention (1971)". The WIPO Copyright Treaty under Article 4 provides that "Computer programs are protected as literary works within the meaning of Article 2 of the Berne Convention. Such protection applies to computer programs, whatever may be the mode or form of their expression".

Hence, the computer technology is an emerging area of intellectual property which is granted proprietary rights to the owners.

¹ Fed.Cir.1998

7.6 PROTECTION OF PLANT VARIETIES AND TRADITIONAL KNOWLEDGE: AN EMERGING AREA OF IP

7.6.1 Protection of Plant Varieties and Farmer's Rights

Agricultural industry acts as a key component in the international economy. It is the major source of export and import trade. Agricultural products form part of food, clothing and other means of sustenance. Due to the growing importance of agriculture, the need to protect the rights of farmers and breeders focused the attention of the world community.

In order to safeguard the interest of farmers and breeders, there was a need to protect new plant varieties by way of uniform guidelines and principles. Farmers' Rights are essential for the conservation and sustainable use of genetic resources for food and agriculture and consequently for food security. The protection of farmers rights are of recent origin in the area of intellectual property which stimulated radical changes in agriculture, law and economy.

The new varieties of plants which are more resistant to insects and better yields increase the productivity and quality of agricultural and horticultural products. In order to breed new varieties of plants, there is a need for considerable investments in skilled labour, raw materials and capital. When a new variety is introduced by research and human intellect, then the breeder is entitled to certain incentives from his efforts. If this plant variety is not protected, then there may be chances to intrude in to the rights of farmers and breeders by reproducing the plant.

The UPOV Convention for The Protection of New Varieties of Plants, 1991 is a step forward in this regard. The main purpose of the Convention is to recognize and grant legal rights to the breeder of a new plant variety or to his successor. The UPOV Convention under Article 1(iv) defines Breeder. Accordingly breeder means:

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

Moreover, the TRIPS Agreement under Article 27 (3) (b) provides that "Members shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof".

Even though India is not a contracting party to the UPOV Convention, India having ratified the TRIPS Agreement made it obligatory to enact new legislation for the protection of new plant varieties. The Protection of Plant Varieties and Farmer's Rights Act was enacted in the year 2001 and the rules were notified in the year 2003.

Section 2 (k) of the Act defines the term Farmer. 'Farmer' means any person who cultivates crop either by cultivating the land himself or cultivates crops by directly supervising the cultivation of land through any person or conserves and

preserves, severally or jointly with any person any wild species or traditional varieties or adds value to such wild species or traditional varieties through selection and identification of their useful properties. In addition, as per Section 2 (c) 'breeder' means a person or group of persons or a farmer or group of farmers or any institution which has bred, evolved or developed any variety. Moreover the Act enables the Central Government to establish a tribunal viz; the Plant Varieties Protection Appellate Tribunal as per Section 54 of the Act.

Therefore, the introduction of the new area of intellectual property and the protection granted to it by international conventions and national legislation has turned to be the most fundamental change in the intellectual property regime. These protections stimulated investments in the field of research for developing new plant varieties; it facilitated the growth of seed industry ensuring high quality seeds and many more. In addition, the protection of Farmer's rights which will enable farmers to produce new varieties of quality crops and the protection eventually gives incentives to the farmers.

7.6.2 Role of Traditional Knowledge in Transforming IP System

Traditional Knowledge means "A specific set of preserved knowledge passed through generations among a group of people who are closely connected with nature". Traditional Knowledge is not independent branch of knowledge but the information and knowledge is always connected with any one of the following fields:

- **Medicine and health care:** Traditional Knowledge is always founded in the areas of medicine and treatment. Several indigenous communities have knowledge about the medicinal values of plants and the use of such medicines in therapeutics. For example, medicinal value of 'Neem' and 'Turmeric' is known to our ancestors. Moreover the extracts of certain plants used for the treatment of hepatitis is known to the indigenous people in India.
- **Agriculture:** The indigenous people are aware about the method of agriculture which is useful for getting more yields. This also helps to understand the traditional methods of farming at a low cost. The traditional knowledge in agriculture is the techniques used by traditional farmers in their agricultural operations. The sustainable quality of such farming techniques is scientifically proved and it enhances productivity and reduces environmental impacts.

The modern methods of agriculture include the following:

- 1) Mechanized farming;
- 2) Irrigation facilities;
- 3) Use of fertilizers and pesticides;
- 4) Quality seeds;
- 5) Marketing facilities;
- 6) Skilled labourers etc.

All these factors have their own advantages and disadvantages. The most important disadvantages are:

- 1) Environmental consequences of modern farming;
- 2) Highly expensive;
- 3) Require special skill;
- 4) Health hazards etc.

In order to overcome the ill effects of modern agriculture, the world community regained the traditional farming techniques which will help reduce the environmental impacts and health problems. One of the examples of such traditional method is 'Organic Farming'. Organic Farming is the combination of traditional and modern methods of agriculture. The traditional knowledge of indigenous people inherited from generations to generations can be applied scientifically and systematically for getting more yields with available resources.

The traditional knowledge in agriculture generally concentrates in the following areas:

- 1) Choice of fertile agricultural land;
- 2) Quality seeds;
- 3) Mode of cultivation;
- 4) Traditional method of pest control;
- 5) Irrigation and soil conservation etc.

Moreover, the traditional knowledge play vital role in the live stock management, weather forecasting, forest management, biodiversity conservation etc. Generally, the traditional knowledge is unwritten in form and inherited to next generation orally or through observation particularly in the form of folklore like music, arts, handicrafts etc.

Traditional knowledge as a kind of intellectual property gained special attention in the recent period. It is the pragmatic knowledge of the people in a particular community. The traditional knowledge reflects the history, beliefs, ethics and traditions of a particular community.

The international acceptance of traditional knowledge or ecological knowledge as a part of intellectual property obliged the United Nations to provide legal protection to this knowledge. Accordingly the United Nations Environmental Programme convened an International Convention on Biological Diversity, 1992. This Convention recognized the importance of traditional knowledge as well as the need to guarantee their protection through intellectual property rights or other means.

In accordance with Article 8(j) of the Convention "Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices".

In India, there is no comprehensive legislation to protect traditional knowledge. The current intellectual property laws are not sufficient to tackle the issues arising out of traditional knowledge. The traditional knowledge is always in conflict with the fundamental concept of intellectual property rights regarding the ownership, period of protection and industrial application.

Self Assessment Question

(Spend 3 minutes)

3) Explain Traditional Knowledge.

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7.7 LAYOUT-DESIGNS OF INTEGRATED CIRCUITS AS AN EMERGING IP

In the modern period, the electronic equipments are inevitable for human activities. Computers and cell phones are built up of sophisticated layout designs of integrated circuits. These layout designs of integrated circuits are treated as part of intellectual property. The legal protection of the integrated circuits was granted through a Treaty on Intellectual Property in Respect of Integrated Circuits done at Washington, D.C on May 26, 1989.

As per Article 2 (i) of the Treaty “integrated circuit” means a product, in its final form or an intermediate form, in which the elements, at least one of which is an active element, and some or all of the interconnections are integrally formed in and/or on a piece of material and which is intended to perform an electronic function.

In addition, Article 2(ii) of the Treaty defines layout designs. Accordingly “layout-design (topography)” means the three-dimensional disposition, however expressed, of the elements, at least one of which is an active element, and of some or all of the interconnections of an integrated circuit, or such a three-dimensional disposition prepared for an integrated circuit intended for manufacture.

Furthermore, considering the importance and need to protect layout designs as an emerging type of intellectual property, the TRIPS Agreement of WTO provides protection throughout the world. Under Sec.6 of Part II of the TRIPS Agreement covers the following:

- Relation to the IPIC Treaty (Article 35);
- Scope of the Protection (Article 36);
- Acts Not Requiring the Authorization of the Right Holder (Article 37);
- Term of Protection (Article 38).

India was a member country to WTO and therefore in order to fulfill its obligations enacted Semiconductor Integrated Circuits Layout Designs Act of 2000 and the Rules in 2001. This Act provides for the procedure and duration of

7.8 UNDISCLOSED INFORMATION AND IPR

Undisclosed information is an independent branch in the intellectual property. The TRIPS Agreement granted recognition and protection of undisclosed information according to Section 7 of Part II. As per Article 2 (ii) of the Agreement, "Natural and legal persons shall have the possibility of preventing information lawfully within their control from being disclosed to, acquired by, or used by others without their consent in a manner contrary to honest commercial practices so long as such information:

- Is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question;
- Has commercial value because it is secret; and
- Has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret."

Undisclosed information contains the following:

- 1) Secret information which is unknown and inaccessible;
- 2) Information which has commercial value;
- 3) The holder has taken precautions to maintain secrecy.

In India, for the protection of undisclosed information, provisions are contained in the Contract Act, 1872 and Official Secrets Act, 1923. According to Section 27 of the Indian Contract Act, 1872 Agreement in restraint of trade is void. As per this section "Every agreement by which any one is restrained from exercising a lawful profession, trade or business of any kind, is to that extent void". The Official Secrets Act of 1923 makes a person liable for wrongful communication of information under Section 5.

7.9 IPR ENFORCEMENT MECHANISMS

Like any other ordinary rights, intellectual property rights are also enforceable through law. There are several international conventions for the protection of specific intellectual properties in international level. These conventions made it obligatory to the state parties to enforce these rights in their municipal sphere. There are also national enforcement mechanisms for the protection of intellectual property rights.

7.9.1 Enforcement under International Law

The fundamental objective of TRIPS Agreement is provided under Article 7 which states "The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations".

Moreover, Part III of the Agreement provides for the enforcement of intellectual property rights. Article 41 enunciates the obligation of state parties in enforcing intellectual property rights. The following are the obligations:

- Members shall ensure that enforcement procedures are available under their law so as to permit effective action against any act of infringement of intellectual property rights.
- Fair and equitable enforcement of intellectual property rights.
- Proper adjudication of disputes.
- Application of natural justice.

The Convention also provides civil and administrative procedures and remedies under Section 2 of Part III which include fair and equitable procedures, evidence, injunction, damages and other remedies (Article 42-49). Further, the Agreement also contains provisions for the dispute prevention and settlement under Part V, Articles 63 and 64.

7.9.2 National Enforcement Measures

India being a signatory to TRIPS Agreement and other specific conventions, implemented changes in the existing statutes and enacted new legislations in accordance with the changes in the international level. The District Court is competent to hear disputes regarding intellectual property rights except in the case of Copyright. In the case of Copyright, Judicial First Class Magistrate is competent to hear disputes.

The Patents Act of 1970 contains detailed provisions for suits concerning infringement of patents under Chapter XVIII, Sections 104-115. Chapter XIX of the Act deals with appeals under Sections 116-117 and Penalties are contained in Chapter XX, Sections 118-124.

Section 104 of the Patents Act provides for the jurisdiction of courts in case of infringement of patent rights. Accordingly, "No suit for a declaration under Section 105 or for any relief under Section 106 or for infringement of a patent shall be instituted in any court inferior to a district court having jurisdiction to try to suit. Provided that where a counter-claim for revocation of the patent is made by the defendant, the suit, along with the counter-claim, shall be transferred to the High Court for decision".

Section 108 of the Act provides for reliefs in suits for infringement. It reads as follows: "The reliefs which a court may grant in any suit for infringement include an injunction (subject to such terms, if any, as the court thinks fit) and, at the option of the plaintiff, either damages or an account of profits."

Section 29 of the Trademarks Act, 1999 provides for Infringement of registered trade marks. Section 29 (1) of the Act states that "A registered trade mark is infringed by a person who, not being a registered proprietor or a person using by way of permitted use, uses in the course of trade, a mark which is identical with, or deceptively similar to, the trade mark in relation to goods or services in respect of which the trade mark is registered." A Suit for infringement of trademarks shall be instituted before District Court under Section 134 of the Trademarks Act. Section 135 of the Act provides for relief in suits for infringement or for passing off.

The Act also gives provisions for Offences, Penalties and Procedure under Sections 101-121 of Chapter XII. Under the Act criminal remedies are available under the following cases:

- Falsifying trademarks (Sec.102);
- Selling or providing services with false trademark (Sec.104);
- Falsely representing an unregistered trademark as registered trademark (Sec. 107);
- Falsification of entries in the register (Sec. 109);
- Abetment of trademark offences (Sec. 120).

The punishment for these offences include a minimum imprisonment of six months and minimum fine of Rs. 50000 which may extend to a maximum of three years and Rs. 200000.

The Copyright Act of 1957 provides for three types of remedies for violation of copyright:

- 1) Civil remedies: Chapter XII, Sections 54-62 deals with civil remedies. It includes injunction, damages and accounts of profit (Section 55). According to Section 62(1) Every suit or other civil proceeding arising under this Chapter in respect of the infringement of copyright in any work or the infringement of any other right conferred by this Act shall be instituted in the district court having jurisdiction.
- 2) Criminal remedies: Sections 63-70 gives criminal remedies for infringement of copyright. A magistrate of first class can try the offence of infringement of copyright.
- 3) Administrative remedies: Administrative remedies include ban the import of infringed copies to India when infringing is by way of such importation.

In addition, in exercise of the powers conferred by sub-section (1) of section 156 of the Customs Act, 1962, read with clauses (n) and (u) of Sub-section (2) of Section 11 of the said Act, the Central Government has made the Intellectual Property Rights (Imported Goods) Enforcement Rules, 2007. According to Rule 6, the import of allegedly infringing goods into India shall be deemed as prohibited within the meaning of Section 11 of the Customs Act, 1962.

The Customs Act, 1962 under Section 11 provides Power to prohibit importation or exportation of goods. Section 11 (1) states that If the Central Government is satisfied that it is necessary so to do for any of the purposes specified in Sub-section (2), it may, by notification in the Official Gazette, prohibit either absolutely or subject to such conditions (to be fulfilled before or after clearance) as may be specified in the notification, the import or export of certain types of goods. It includes:

- 1) the protection of national treasures of artistic, historic or archaeological value (Sec.11(2)(l));
- 2) the protection of patents, trademarks and copyrights (Sec.11(2)(n));
- 3) the prevention of deceptive practices (Sec.11(2)(o)).

7.10 SUMMARY

- The industrial revolution raised the importance of intellectual properties in certain areas like textiles, power, transfer of knowledge etc. These developments resulted in the universal recognition of intellectual properties and many new kinds of protection in the field of intellectual properties have also developed in the recent period.
- The traditional meaning of industrial property expanded its scope in various dimensions. The emergence of World Intellectual Property Organization (WIPO) resulted in the extension of traditional definition of industrial property into a new meaning.
- Many new forms of incorporeal properties are granted protection by the intellectual property organizations as well as international agreements.
- The wide acceptance of the protection of intellectual properties has led to the incorporation of new rights to the owners and their representatives and liabilities in case of piracy and infringement.
- There are enforcement mechanisms at the national and international level and also international organizations for the protection of intellectual property rights.
- The emergence of international organizations and world wide acceptance of intellectual properties paved the way for the conclusion of various multinational conventions in intellectual property rights. The conventions made it obligatory for all the member states to formulate national legislations and make changes in the existing legislations in tune with the international law.
- India has ratified other major specific international conventions on intellectual property rights and hence implemented the provisions of the conventions in the national statutes.
- The research and developmental activities are based upon certain correlative factors and their application like telecommunication, computers, robotics, biotechnology, microelectronics etc. thereby closely connecting intellectual property laws with technology and development.
- One of the emerging areas in intellectual property is the protection of new plant varieties and farmer's rights. In order to safeguard the interest of farmers and breeders, there was a need to protect new plant varieties by way of uniform guidelines and principles.
- Farmers' Rights are essential for the conservation and sustainable use of genetic resources for food and agriculture and consequently for food security.
- The layout designs of integrated circuits are treated as part of intellectual property. The legal protection of the integrated circuits was granted through Washington Treaty on Intellectual Property in Respect of Integrated Circuits, 1989.
- Undisclosed information is an independent branch in the intellectual property. The TRIPS Agreement granted recognition and protection of undisclosed information.

- There are several international conventions for the protection of specific intellectual properties in international level. These conventions made it obligatory to the state parties to enforce these rights in their municipal sphere. There are also national enforcement mechanisms for the protection of intellectual property rights.
- The TRIPS Agreement provides for the enforcement mechanisms to permit effective action against any act of infringement of intellectual property rights.
- In India, the District Court is competent to hear disputes regarding intellectual property rights except in the case of Copyright. In the case of Copyright, Judicial First Class Magistrate is competent to hear disputes.

7.11 TERMINAL QUESTIONS

- 1) Write about the changes in the definitions of IP?
- 2) How intellectual property influence technology and law?
- 3) What are the emerging areas of IP?
- 4) Explain the changes in the enforcement mechanisms at national and international level.

7.12 ANSWERS AND HINTS

Self Assessment Questions

- 1) Hint: Industrial Property and Copyright
- 2) Hint: No enforcement mechanism
- 3) Refer to Section 7.5

Terminal Questions

- 1) Refer to Sub-section 7.3.1
- 2) Refer to Section 7.4
- 3) Refer to Section 7.5
- 4) Refer to Section 7.6

7.13 REFERENCES AND SUGGESTED READINGS

- 1) Encyclopedia of Intellectual Property Rights, Indian Institute of Intellectual Property Rights, Vol.9, Ed. 2008
- 2) WIPO Website
- 3) Convention on Biodiversity, 1992
- 4) UPOV Website

NOTE

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