CHAPTER – 7

TRIPS PROVISIONS
UNDER WTO

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is the result of seven years of negotiations – from September 1986 to December 1993, as part of the Uruguay Round of Multilateral Trade Negotiations of the GATT. These negotiations were launched at Punta del Este, Uruguay and formally concluded in April 1994 at Marrakesh, Morocco, along with the other negotiations of the Uruguay Round. TRIPS came into force on the first day of the 1995, with the establishment of the WTO.

TRIPS is a very important Agreement because it incorporates the trade in "ideas" within the sphere of WTO's activities. It obliges signatory countries to define in their national legislation the minimal standards for protecting intellectual property, as well as the means to ensure compliance with these norms. Agriculture in developing countries is very much concerned since this Agreement covers all living organisms (animals, plants, micro-organisms, genes, etc). It clearly addresses the question of the appropriation of seeds, biological resources or traditional knowledge and, in exchange, the cost of access to them and their use.
7.1 The TRIPS Agreement

The Agreement on Trade-Related Aspects of Intellectual Property Rights was one of the main outcomes of the Uruguay Round of trade negotiations concluded in 1994, which also led to the establishment of the World Trade Organization. TRIPS is now the key international agreement promoting the harmonisation of national IPR regimes. The purpose of the TRIPS Agreement, as stated in the preamble, is to introduce new rules and disciplines for global trade concerning the provision of:

- adequate standards and principles concerning the availability, scope and use of trade-related intellectual property rights;
- effective and appropriate means for the enforcement of trade-related intellectual property rights.

Protection and enforcement of IPRs should, according to Article 7 (Objectives), “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.” Just as social and economic welfare are considered as priority matters, Article 8 Paragraph 1 gives priority not only to the public interest in sectors of vital importance to social, economic and technological development, but also to public health and nutrition.

7.1.1 TRIPS and Developing Countries

The inclusion of intellectual property in the Uruguay Round agenda largely resulted from developed country concern about inadequate protection against imitation, especially in pharmaceuticals, food additives
and plant varieties. The success of the negotiations partly reflected a change of heart on the part of many developing countries previously concerned that stronger IPRs would hinder the transfer of technology and limit access to information.

The TRIPS Agreement provides stronger minimum standards of protection and enforcement. Points of key interest to developing countries are that:

- the transitional arrangements allow a delay in implementation;
- the developed country members are committed to provide assistance in preparing and enforcing domestic IPR legislation;
- signatories are allowed to exclude plants and animals from patentability so long as they institute their own sui generis protection system for plant varieties.

7.1.2 Implementation

The TRIPS Agreement presents developing and developed countries with a serious implementation challenge. They have until the start of 2000 (2005 for product patent protection and 2006 — extendable on request — for the least developed countries). But they need to make preparations, and all were obliged to begin immediately to comply with the provisions on national and most favoured- nation (MFN) treatment.

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1 *Sui generis* is a Latin expression that has the meaning “of its own kind”. A *sui generis* system of protection for example for traditional knowledge would be a system of protection separate from the existing IP system.
Box 7.1

The TRIPS Agreement

The agreement sets out the minimum rights to be accorded to various categories of intellectual property and also specifies measures for their enforcement. Its main features are:

- MFN and national treatment;
- the establishment of a standard patent protection period of 20 years;
- permission for signatories to exclude from patentability plants and animals other than micro-organisms, subject to providing a sui generis system for plant variety protection (Article 27:3(b) – under review from 1999);
- compulsory licensing;
- the setting up of a WTO TRIPS Council, with members required to notify the Council of domestic laws regarding IP legislation;
- general WTO procedures for dispute settlement and strengthening of domestic enforcement procedures on IPRs;
- transitional arrangements (from 1 January 1995): one-year delay in implementation for all signatories; five-year delay in implementation for developing countries (extendable to ten years for technology sectors where no previous IP protection accorded); 11-year delay for least developed countries (extendable on request to the Council);
- the commitment of industrial countries to provide technical and financial assistance to help developing countries to prepare and enforce domestic IPR legislation.
7.2 Protection of Plant Varieties

The protection of plant varieties is established in Article 27 of the TRIPS Agreement, which defines the fields for application of patents.

**Article 27: Patentable Subject Matter**

- Subject to the provisions of paragraphs 2 and 3, patents apply to all inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application.

- Members may also exclude from patentability:
  
  Diagnostic, therapeutic and surgical methods for the treatment of humans or animals,

  Plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective "sui generis" system or by any combination thereof. The provisions of this subparagraph shall be reviewed four years after the date of entry into force of the WTO Agreement.

A sui generis system is one that is specific to each country, other than a patent that protects plant varieties from reproduction.

These provisions oblige WTO Members to introduce intellectual property rights for plant varieties, either through patents or through an original and efficient system to protect new plant varieties at
national level, as for example the system of the International Union for the Protection of New Varieties of Plants (UPOV).

The UPOV Convention dates back to 1961 and was amended twice, in 1978 and in 1991. It issues a "new variety certificate" for the protection of new varieties of plants. A new variety can be protected in this way, and users must pay royalties to the right holder, with two exceptions:

- **Research purposes**: Plant breeders may use a variety protected by a "new variety certificate" provided it is for the purpose of creating a new variety, without having to pay royalties.

- **The "farmer's privilege"**: A farmer may use the products of his harvest for seeding purposes, provided it is for his personal use. In the 1978 Convention, this "privilege" was compulsory. In the 1991 version, however, it is optional (it is up to the signatory country) and it can be exercised as long as the legitimate interests of the inventor of the variety are safeguarded. Among the countries that signed the 1991 UPOV convention, this article is applied either by authorising farmers to produce farm-seeds without restriction (the only obligation being not to sell them) or to levy a tax on farm-seeds. The 1991 version is much less favourable to farmers.

At present, 46 countries belong to UPOV, mainly developed countries and export-oriented developing countries. Any new country wishing to join UPOV must now do so under the 1991 version.

The main difference between protection through patents or through the certificate issued by UPOV is that it is not possible to use a variety protected by a patent without paying royalties, even for research or
farming purposes. This system reinforces considerably the "new variety certificate". In practice, patents protect all varieties of genetically modified plants on the market. Reproducing a Genetically Modified Organism (GMO) without paying royalties is illegal and is therefore considered as an act of piracy. Without a patent, returns on investments of biotechnology companies would be insufficient. GMOs can only be profitable if they are patented.

### 7.3 Categories of Intellectual Property Rights

Intellectual property rights (IPRs) take various forms. Probably the most prominent are patents, copyrights and trademarks. Other important IPRs include industrial designs, trade secrets, and geographical indications. The different forms of Intellectual Property (IP) are:

1. Patents
2. Industrial Designs
3. Trade Marks
4. Copy Rights
5. Lay out designs of Integrated Circuits
6. Geographical Indication
7. Trade Secrets or undisclosed information

Earlier, Patents, Designs and Trademarks were considered as three different type of industrial property. These forms of industrial property along with the others mentioned above are now referred to as intellectual property. Basics about all these types of intellectual property rights are dealt with here.
7.3.1 PATENTS

7.3.1.1 What is a patent?

Patent is a grant from the Govt. which confers on the grantee for a limited term, the exclusive privilege of making, selling and using the invention and also authorizing others to do so. In other words, it is a protection given to a patentee for his invention for a limited term by the Government in consideration of his disclosing the invention. Accordingly, the grant of a patent gives to the patentee the right to exclude others from making, selling and using the invention throughout India.

7.3.1.2 What can be Patented?

A patent is granted for an invention. According to the Indian Patents Act, 1970, "Invention" means any new and useful (i) art, process, method or manner of manufacture; (ii) machine, apparatus or other article; (iii) substance produced by manufacture and includes any new and useful improvement of any of them. In other words, inventions should be new, novel, innovative and non-obvious. In most cases, inventions are "incremental improvements" of existing practices or products but to be patentable they must satisfy the basic requirements stated above.

A vital pre-requisite for grant of patent is that the invention covered by the patent must not have been published or practiced anywhere in the world even by the author. It should also not have been displayed/exhibited in a scientific workshop / exhibition / forum etc. The details of invention must not be in public knowledge.
7.3.1.3 What cannot be Patented?

- An invention which is frivolous or contrary to well established natural laws.
- The mere discovery of a scientific principle or formulation of an abstract theory.
- The mere discovery of any new property or new use of a known substance or the mere use of a known process, machine or apparatus unless such known process results in a new product.
- A method or process of testing for rendering the machine/equipment more efficient or for the improvement / Restoration of the existing machine/equipment.
- The mere arrangement or rearrangement or duplication of known devices each functioning independently of one another in a known way.
- Inventions relating to atomic energy.
- A method of agriculture or horticulture.

7.3.1.4 Evaluation Criteria of Innovations for Patenting

Evaluation involves answering the following questions satisfactorily.

Inventiveness

1. What is the object of the invention? What are the problems or difficulties the inventor seeks to surmount? Have these difficulties been surmounted in reality?
2. What are the new and additional features of this invention over what has been published, used or known?

3. What is the relevant known information (literature, including publications, patents, production, usage, etc.) related to this invention?

4. Has a systematic and structured prior art search been done on local and international databases?

5. How does this invention differ from the prior art or from what is known in related fields?

**Non-obviousness:**

- Can this invention be considered as an "obvious" extension of the present state of knowledge in this field or related fields?
- Have any experimental trials or tests been conducted to show that the prior art does not adequately solve the problem being tackled by the present invention.

7.3.1.5 **Expectations from a Patent**

Expected technical value of the invention and possibility of its useful exploitation should be highlighted in the patent document. Various aspects of usefulness like savings in costs, materials, manpower etc. and generation of new knowledge assume importance in any patent.

7.3.2 **Industrial Designs**

Design means only features of shape, configuration, pattern or ornament applied to any article by any industrial process or means whether manual, mechanical or chemical. There are fourteen classes under which
design can be registered, viz. metal, glass, textiles, leather, rubber etc. As of now, the duration of protection is for 5 years, and can be renewed twice for a period of further 10 years. As per TRIPS it would be for a period of 10 years.

7.3.3 Layout Design of Integrated Circuits

This is similar to that of designs and duration of protection is for 10 years.

7.3.4 Trade Marks

The trade mark can be briefly described as a word, name, device, label, signature, letter or numeral or any combination thereof used by a manufacturer or trader to identify his goods from those of other manufacturers. A superscript TM, appearing on the right top of any brand name means that, the manufacturer of the said brand has applied for trade mark registration and is awaiting for the grant of the trade mark. French version of the same is represented by MC "marque de commerce". A superscript, appearing on the right top of any brand name means that, the trade mark has been granted and no one else can use the same. Duration of Trade Mark is indefinite but has to be renewed every 7 years. It is same in TRIPS also.

7.3.5 Copyright

Write ups, package design, advertisements, artistic, musical and literary works, software programs are protected through copyrights. In USA, software programs are protected under patents. As of today, duration is 60 years after the death of author. Copy Rights law which is undergoing
changes and as per TRIPS it will be valid for a period of 25 years from the date of registration.

### 7.3.6 Geographical Indications

Qualities and characteristics of certain goods attributable to some geographical locations and reputable to as produce of certain region come under Geographical Indications. Only associations can apply for geographical Indications.

Examples: Basmati rice, Darjeeling Tea, Alfanso Mangoes, Nagpur Santras, Havana cigars, etc.

#### Box 7.2

**An Example: Basmati Rice**

Basmati rice, which is grown in the Indus valley in India is characterised and appreciated for its long grains. Rice Tec, an American biotechnology corporation, filed a patent for two varieties of Basmati rice, grown in Texas, under the commercial labels of Texmati and Kasmati. Initially, the Indian government wanted to attack this patent on the grounds of fraudulent use of the geographical designation. Realising that this type of rice was grown in other regions, India felt that it would be difficult to plead this case. Instead, it decided to prove that Basmati rice has special characteristics that Indian peasants have known for centuries and that it is therefore not a discovery (only discoveries can be patented). A further argument is provided by a genetic analysis revealing that Texmati and Kasmati are genetically closer to American rice than to Indian rice.
7.3.7 Trade Secrets / Classified Information

Though these do not demand to be intellectual property, their protection through contractual obligation is stipulated. Employees, consultants, sub contractors etc., are restrained from divulging confidential information or misappropriation.

7.4 Patents and India

The TRIPS Agreement is a part of the Agreement establishing the World Trade Organization (WTO) which India has ratified and which came into force from January 1, 1995. The TRIPS Agreement lays down minimum standards for protection and enforcement of Intellectual Property Rights (IPRs) in member countries and requires them to bring their laws and regulations on Intellectual Property (IP) into conformity with their obligations within the time frame stipulated in the Agreement. Patents which constitute one element of IP, come within the purview of the TRIPS Agreement.

India, as a developing country has a transition period of five years with effect from January 1, 1995 to comply with the provisions of the Agreement. This deadline expires on December 31, 1999. An additional period of five years i.e. till December 2004 is also available for extending product patent protection to areas of technology not protected so far. This would mainly be in the areas of pharmaceuticals and agricultural chemicals. During the transition period relating to the extension of product patent protection to pharmaceuticals and agricultural chemicals, the Agreement stipulates certain conditions relating to a ‘mailbox’, in which product patent applications can be received during the transition period for consideration with effect from January 1, 2005. It also stipulates certain provisions for
granting Exclusive Marketing Rights (EMRs) for five years or till the patent is granted or rejected whichever is earlier. India has already made these transitional arrangements through an amendment of the Patents Act, 1970, notified on March 26, 1999.

Apart from the recent amendments made in March, 1999, the Patents Act, 1970 has not undergone any change. During this period of time, however, there has been considerable technological innovation and development of knowledge and the concept of IP as a resource for knowledge based industries has become well recognised the world over. Development of technological capability in India, coupled with the need for integrating the IP system with international practices and intellectual property regimes require that the Patents Act, 1970 be modified into a modern, harmonised and user-friendly Act to adequately protect national and public interests, while simultaneously meeting India’s international obligations under the TRIPS Agreement.

7.5 Concern of Developing Countries on TRIPS

Developing countries expressed strong reservations at the Seattle Conference about the implementation of the TRIPS Agreement, and they put forward several reasons:

7.5.1 The Use of Farm-Seeds

Forbidden by patents, it is usually permitted under other forms of plant variety protection. This is an extremely important issue because the use by farmers of part of their harvest for future sowing is a very widespread practice in over 90% of developing countries. Forcing farmers to buy their seeds every year creates several problems, the first one being obviously the
cost. The type of available varieties is another. In general, seed companies do not offer all existing varieties for sale, especially local and traditional varieties. Forcing farmers to purchase seeds every year is an enormous asset for seed companies, giving them the power to control which varieties are cultivated. This could also lead to a loss of biodiversity.

Developing countries would like the principle of the "farmer's privilege" to be recognised by the WTO Agreement. But the major seed companies are completely opposed to this proposal as it goes against their immediate financial interests and they are therefore exerting pressure on their governments. To prevent farmers from using farm-seeds, biotechnological companies have even perfected a transgenic process, known as "Terminator" by its detractors, that makes seeds from transgenic plants sterile. Seed companies have nevertheless developed research programmes to genetically restrict the "farmer's privilege".

7.5.2 Life Patenting and Bio-Piracy

The leading biotechnology companies have drawn up an inventory of plants used in agriculture all over the world, and especially in developing countries. The most interesting plants and micro organisms are genetically modified, patented and then marketed.

Big firms have also carried out field research among indigenous peoples to find out how they use medicinal plants. Once they acquire the necessary knowledge, they transform these local practices into mass-produced medicines for the profit of the major companies.

The impact of both approaches on developing countries is the same:
• The local populations are deprived of their resources and can no longer use the plants or medicinal formulas once they have been patented.

• Above all, they do not derive any profits from the commercialisation of plants or medicines, even though they are at the origin of the medicinal formulas and it is they who search for, cultivate, and protect the plants coveted by big firms.

7.5.3 The Preservation of Biodiversity

The term biodiversity (or biological diversity) covers all that composes the living world: diversity of environments (ecosystems), diversity of species, and genetic diversity within the same species. This biological diversity is the common heritage of humanity.

However, patents are leading to the privatisation (or private appropriation) of the biodiversity. An individual or a firm discovering a new plant variety can apply for a patent to protect the discovery. This prevents other people from freely using this plant variety, as well as from controlling or managing it.

Individuals who become owner of plant varieties are only interested in those that offer potential profits. Their research therefore focuses on a small number of varieties. The interesting varieties thus replace the others. They are cultivated more intensively, research concentrates on improving or protecting them. This results in the loss of biodiversity. This question is of particular concern to developing countries since they have a very rich biological diversity.
7.6 IPRs and Issue for Agricultural

Various concerns have been raised about the effects of intellectual property rights on agriculture. These include the following fears:

(a) that the whole world is interdependent in terms of crop germplasm and that while free circulation of breeding material is beneficial, IPRs, especially patents, take such material out of circulation;

(b) that IPRs encourage the breeding of crops that are most potentially profitable but which may not be those preferred by or most beneficial for resource-poor developing country farmers and rural communities;

(c) that IPRs encourage business consolidation leading to oligopolistic market structures;

(d) that IPRs can sometimes result in the privatisation of the fruits of public sector agricultural research so that companies benefit unduly from research financed from the public purse; and

(e) that IPRs incentivise the breeding of genetically-uniform varieties and monocultural agriculture.

All of these fears have been debated, some for at least two decades, and the writings below cover the issues and the different stakeholder viewpoints.

The basic obligation in the area of patents is that, inventions in all fields of technology whether products or processes shall be patentable if they meet the three tests of being novel, involving an inventive step and being capable of industrial application. In addition to the general security
exception, which applies to the entire TRIPS Agreement, specific exclusions are permissible from the scope of patentability. These are available in the areas of inventions whose commercial exploitation is to be prevented to protect public order or morality, human, animal plant life or health or to avoid serious prejudice to the environment. In addition, we can exclude from patentability diagnostic, therapeutic and surgical methods for the treatment of human and animals, plants and animals other than micro organisms, and essentially biological process for the production of plants and animals other than non-biological and micro biological processes.

In respect of plant varieties, there is an obligation to provide for protection either by patents or by an effective sui generis system or by any combination thereof. The Agreement does not spell out the elements of an effective sui generis system and it is left to each Government to determine the elements, which could be deemed to be providing effective protection.

Developing countries demand the preservation of traditional peasant practices, in particular the right to make their own seeds, trade them, and sell their harvest. Developing countries want all rights or practices that could weaken the food sovereignty of developing countries to be banned. Recognition of their rich biodiversity, use of these resources, sharing the profits earned from their use, recognition of traditional knowledge and the rights of farmers would be conditioned to a great extent by the type of national legislation chosen to ensure protection.

With the recent globalisation of intellectual property regulatory standards heralded by TRIPS, IPRs have become an issue that the development community can no longer ignore. One of the problems is that policy formulation in this area is fraught with uncertainties and incomplete
information. This is the case at both theoretical and practical levels. As the World Bank has acknowledged,² for the developing countries especially there is a dearth of reliable research data to forecast accurately the development-related effects of strengthened IPR protection. So at a time when the developed countries have achieved a global IPR regime in which minimum standards of protection are mandatory so their own firms can protect their ‘information value-added’ more and more widely, it becomes difficult to know what exactly are the implications for developing countries seeking ways to develop and/or acquire scientific and technological information for development. Should they simply imitate the national IPR regimes of developed countries as some of the latter nations and transnational corporations are pressuring them to do? Or should they be allowed the freedom to use their discretion even if this results in levels of protection deemed inadequate by many developed country governments and corporations?

Finally, it may be stated that TRIPS sets fairly high standards on IP protection as compared to what had existed in national and international law at the time. The WTO has in place effective mechanisms for monitoring and ensuring compliance with these standards. However, TRIPS has left many gaps: some are ambiguities due to lack of clear consensus at the time of the negotiations; others have emerged later due to rapidly changing developments both in technology and law in the post-negotiation period.

² http:\www.dfid.gov.uk/AboutDFID/files/itd/iprshd.pdf
7.7 TRIPS and Haryana

TRIPS agreement has significance in Haryana agriculture in particular and India as a whole because of rich bio-diversity. This agreement provides that technologies used in the production of traded goods will be patented and their use for production will not be made by any county except the one where it has been patented. This will obviously make many of the imported commodities, using patented technology, more costly. So, far as the Haryana agriculture as well as India is concerned, it is the cost of new varieties of imported seeds, which will increase, as the technology used in their development is obviously a foreign one. Thus, agricultural production may suffer.

The general perception about TRIPS has been that it had been contrived by the developed countries to exploit the developing countries particularly in the field of agriculture. But most recently, with a better understanding of the conditions of the Agreement, that perception has undergone a change. Now it is realised that the Agreement holds immense possibilities will depend on how carefully we examine the conditions, assess the implications and evolve strategies to counter the threats and exploit the opportunities. Sidhu does not agree with the view that higher prices of imported seed will adversely affect the growth of the agricultural sector in India. According to him, despite the agreement on TRIPS, it is not obligatory for the Indian farmers to use the imported seed if it is not economically remunerative when judged in terms of productivity. Further, under the TRIPS provisions, can use retained seed or seed received in

exchange from other farmers. Moreover, the agreement on TRIPS does not cover self-pollinated seeds like those of wheat and rice. As a matter of fact, seeds for only a few plants are likely to be patented, i.e. only those, which satisfy the criteria of ‘Novelty’ and ‘Distinctness’. It has been pointed out that Haryana as well as India has a very strong infrastructure for plant breeding, in the form of research and development organisation. Presently, more than 2500 varieties of seeds for high-yielding varieties have been released.

While in the light of above assertion, there is no need to take special steps to discourage the import of hybrid seeds, developed in foreign countries. We must continue the ban on the import of terminator seed even it is quite cost effective till we ourselves are able to develop such a seed.

Steps against bio-piracy are also extremely necessary. As a precautionary measure, foreign multinationals should net be allowed to engage themselves in Haryana as well as in India, in the development of new plant varieties.

In case on TRIPS, it is suggested that Haryana state in particular and developing countries like India in general should demand the preservation of traditional peasant practices, in particular the right to make their own seeds, trade them, and sell their harvest.