



RAMA
UNIVERSITY

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**FACULTY OF AGRICULTURAL SCIENCES
AND ALLIED INDUSTRIES**

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Intellectual Property:

Intellectual property is an idea, a design, an invention etc which can ultimately give rise to a useful product / application. For the development of such intellectual property, requires intellectual inputs, innovativeness, considerable monetary and other resources. Therefore, the inventor would like to ensure a fair reward for his invention. But the major problem with intellectual property is that they can be copied, imitated or reproduced, this minimizes the returns to the original inventor. The right on an invention to derive economic benefits for his invention (*i.e.* intellectual property) is called as intellectual property rights (IPR). The IPR however is recognized by the govt. only so long as it is not detrimental to the society.

Protection of Intellectual Property Rights: The protection of IPR may take several forms depending on the type of intellectual property and the type of protection sought.

Each form of protection has its own advantages & disadvantages. The main forms of IPR protection are as follows.

1. Trade secrets
2. Patents
3. Plant Breeder Rights (PBR)
4. Copyright

1. Trade secret: When the individual / organization owning an intellectual property does not disclose the property to any one and keeps it as a closely guarded secret to promote his business interests, it is called trade secrets. Trade secret may relate to formulae, processes or parented lines in hybrids, in biotechnology trade secret include cell lines, micro organism strains etc.

Advantages:

1. They are for unlimited duration
2. It is not necessary to satisfy the stringent procedures for patents
3. The cost of facing, contesting & enforcing patents is saved
4. The risk of someone improving upon the product etc is reduced

Limitations:

1. Maintaining a trade secret itself is a costly affair

2. It is not protected from independent innovation / invention

3. Non-disclosure of the invention does not give others as chance to improve upon the original inventions. This prevents or delays the progress in that particular field.

4. It cannot be applied to many inventions eg. Equipments designs, plant varieties, books etc.

2. Patents: A Patent is the right granted by a government to an inventor to exclude others from imitating, manufacturing, using or selling the invention in question for commercial use during the specified period.

Patent Requirement: For granting a patent the main requirements are as follows

- 1) Novelty
- 2) Inventiveness
- 3) Industrial application & usefulness
- 4) Patentability
- 5) Disclosure

Novelty: The invention must be new and should not be already known to public.

Inventiveness: The invention should represent an innovation

Industrial Application & Usefulness: The patent must have an industrial application should be useful to the society/nation.

Patentability: It must be patentable under the existing law and its current interpretation. The criteria at present vary from country to country and with time within the same country. The Indian Patent Act 1970 does not allow product patents in pharmaceuticals, food and agriculture. The key element is that substances used as food/medicine/drug and the entire class of materials formed by any chemical reaction do not qualify as patentable subject matter i.e. product patents are not allowed in India. As a result, an antibiotic is not patentable in India, while the process of its production is in contrast; both the product & the processes are patentable in Europe & USA.

Disclosure: The inventor has to describe his invention in sufficient detail so that a person of normal skill is able to reproduce it. In case of biological entities already known, organisms may be

simply named. But if they have been genetically modified, the nature and the method of modification has to be described fully. A patent may be viewed as a contract between the society and the inventor where in the inventor discloses his intention in return for the protection granted to him by the society to control the commercial aspects of his invention to the extent that is not determined to the society. The disclose of an invention gives an opportunity to other inventors to improve upon the various features of the invention, so that it became more efficient & /or more useful. This in-turn, results in scientific and economic progress of the society/nation.

Limits of a patent:

A patent is limited both in time and space

a) Limitation of Time: A patent is valid for a specified period of time from the date of award in most countries this period is 15-20 years. The Indian patent act (1970) grants protects for 7 or 14 years. However, there is a strong argument for larger protection as it take upto 10 years from the time or patent is awarded to the time the product reaches market.

b. Limitation of Space: A patent is valid only in the country of its Award and not in other countries. A group of nations may agree to honour the patents awarded by any member country eg. European Economic community. WTO has a similar provision that a patent awarded by WTO will be valid in all member countries.

3. Copyright: Certain intellectual properties are not patentable. They are protected by copyright eg: Books, Audio, Video cassettes & Computer software. The copyright is limited both in time and extent.

Plant Breeder Rights: are the rights granted by the Govt. to plant breeder, or owner of a variety to exclude others from producing commercially the propagating material or that variety for a period of 15-20 years.

To qualify for PBR protection a variety has to be novel, distinct from existing varieties and uniform and stable in its essential characteristics. A person holding PBR title to a variety can authorize other organizations to produce and sell the propagating material of that variety.

PBR in India

India had evolved a sui generis system of PBR. Which means a system of their own. The essential features of UPOV - 1978 act are being considered for adoption. Some important features of the Indian sui generis system are:

1. Farmers rights
2. Researchers right to use the material for research
3. Protection period of 15 years for annuals and 18 years for fruit trees
4. Compulsory deposit of the material in national gene bank
5. Establishment of National Authority for the protection of Breeders, farmers and researchers use rights.

Benefits of PBR

1. Profits obtained by breeders through PBR will act as an incentive in promoting Plant Breeder research.
2. It encourages private companies to invest in Plant Breeding Research.
3. It will enable access to varieties developed in other countries & protected by IPR laws
4. Increased competitiveness among various organizations engaged in Plant Breeding is likely to benefit both farmers and the nation

Disadvantages of PBR

1. PBR will encourage monopoly in genetic material for specific use
2. It suppress free exchange of genetic material and encourage unhealthy practices
3. The PBR holder may produce less seed and increase the price for achieving more profit.
4. Farmers privilege to resow the seed produced by him may be gradually diluted
5. PBR may result in increased cost of seed and may be burden for poor farmers