

Intellectual property rights (IPRs)

Intellectual property rights (IPRs) can be broadly defined as legal rights established over creative or inventive ideas. Such legal rights generally allow right holders to exclude the unauthorized commercial use of their creations/inventions by third persons. The rationale for the establishment of a legal framework on IPRs is that it is a signal to society that creative and inventive ideas will be rewarded. There are two broad categories of IPRs: one, industrial property² covering IPRs such as patents, trademarks, geographical indications and industrial designs; two, copyright and related rights covering artistic and literary works, performances, broadcasts and the like. IPRs that do not fit into this classical division are termed *sui generis*, meaning one-of-its-kind. Such *sui generis* rights include those covering lay-out designs of semi conductor chips and plant breeders' rights.

IPRS Relevant to Agriculture

Several of the IPRs mentioned above are relevant to the agricultural sector in that they can be used to protect goods or services produced in the agricultural sector. These are mainly patents, plant breeders' rights, trademarks, geographical indications and trade secrets.

Patents are probably the most important IPR today for agricultural goods and services as they provide, wherever these are available, the strongest protection for patentable plants and animals and biotechnological processes for their production. Patents universally give the patentee the right to prevent third parties from making, using or selling the patented product or process. Patents, however, have to be disclosed to the public through the patent documents. This enables researchers to develop further useful products or services. Patentable products have to meet the criteria of patentability, viz., novelty, i.e. that which is not known in the prior art, non-obviousness i.e. that which involves an inventive step and usefulness i.e. that which is industrially applicable. With some differences the patent laws of all countries follow these criteria. However, not all countries allow the patenting of plants and animals or even microorganisms or biotechnological processes.

Biotechnology is the sector that holds the most potential for advances in agriculture to improve productivity. Biotechnology R&D is mostly concentrated in the hands of large multinational enterprises in the US, Europe and Japan. This gave rise to the patenting of micro-organisms found in nature, if it involved a new, inventive and useful technical intervention by man. Thus, research on the cloning of animals, which is advancing rapidly, would be eligible for patents in at least some developed countries.

Many countries have developed plant breeders' rights to reward conventional plant breeding efforts. Such *sui generis* protection is weaker than patent protection in that the right holders can only prevent third parties from commercially exploiting the protected material. The criteria used to grant such protection is also lower than that used to determine patentability as these are distinctness, i.e. distinguishable from earlier known varieties, uniformity i.e. display of the same essential characteristics in every plant and stability i.e. the retention of the essential characteristics on reproduction. Such protection encourages breeding efforts in the private sector. Historically, in developing countries, such efforts have emanated from the public sector or from international research institutions. It is only in recent years that developing countries have begun to institute such protection.

The Protection of Plant Variety and Farmers Rights Act 2001

India's plant variety protection and Farmers' Rights Act, 2001 The General Agreement on Trade and Tariffs (GATT), the predecessor to the World Trade Organization (WTO), was established to restore world trade after the end of the Second World War in 1945. Several GATT rounds starting from 1948, dealt with the quotas and duties of tradable commodities between nations. The 1986 GATT Round, popularly known as the Uruguay Round, brought in new elements into the trade discussion, especially relating to agriculture. One of the most controversial agreements of the Uruguay Round is that relating to the granting of Intellectual Property Rights on biological materials embodied in the Trade Related Intellectual.

TRIPS specifically require member nations to grant patents on microorganisms, non/biological and microbiological processes as well as effective IPR protection for plant varieties.

TRIPS provide a choice for protecting plant varieties. Members may choose from patents, a sui generis system or a combination of the two. Most developing countries including India have decided not to have patents for plant varieties and have chosen the sui generis option instead. The sui generis system (translating roughly into self-generating) means any system a country decides on, provided it grants effective Plant Breeders' Rights. TRIPS does not specify what kind of breeders' rights is meant and it does not say what else a member state can include in its law, apart from breeders' rights. In short, TRIPS is a flexible system, which leaves a lot to the discretion of members. As a response to the TRIPS agreement, India has started enacting a series of domestic laws to implement the commitments it has made. The Plant Variety Protection and Farmers Rights Act, 2001, is the Indian sui generis legislation. The Indian law, which has been hailed as a progressive, pro-developing country legislation, has some notable features. Apart from a well-defined breeders' right, it has strong and proactive farmers' rights. In fact the Indian legislation succeeds in balancing the rights of Breeders and Farmers and exploits the flexibility granted in TRIPS, in an intelligent manner. There are

clauses to protect the rights of researchers and provisions to protect the public interest.

The Indian legislation is the first in the world to grant formal rights to farmers in a way that their self-reliance is not jeopardized. What is significant and positive about this legislation is that it charts its own course, deviating from the norms set by the Union for the Protection of New Plant Varieties (UPOV). UPOV is at present the only platform for regulating plant breeders' rights. It is a platform for developed countries which is modulated to protect the interests of agriculture in industrial countries. It does not even have the notion of farmers rights. The innovative Indian legislation has opened up interesting possibilities for developing a developing country platform for regulating breeders' and farmers' rights so that both, not just one, are acknowledged and protected. The salient features of the new law are described in this article.

Breeders Rights

On registration of a particular variety, the plant breeder has rights of commercialization for the registered variety either in his/her own person or through a designated person. These rights include the right to produce, sell, market, distribute, import or export a variety, in short, full control over formal marketing. Violation of the breeder's right can be construed at several levels. It applies to the variety itself as also to its packaging. Infringement will be established if the packaging is the same or even similar, such that the package could appear to be that of the Breeder. Legally, a similar looking package will be considered "Passing Off" and so actionable. Any one other than the breeder can not use the registered name or denomination. The use of the same or similar name in any way, by action or even suggestion, will constitute a violation and will be punishable. Penalties are prescribed for applying false denomination and for selling varieties to which false denomination is applied.

Farmers Rights

The Act recognizes the farmer not just as a cultivator but also as a conservator of the agricultural gene pool and a breeder who has bred several successful varieties. There are provisions for such farmers' varieties to be registered with the help of NGOs so that they are protected against being scavenged by formal sector breeders. The law allows the farmer to sell seed in the way he has always done, with the restriction that this seed can not be branded with the Breeder's registered name. In this way, both farmers and breeders rights are protected. The breeder is rewarded for his innovation by having control of the commercial market place but without being able to threaten the farmers' ability to independently engage in his livelihood, and supporting the livelihood of other farmers.

Apart from the right to sell non-branded seed of protected varieties, the rights of farmers and local communities are protected in other ways too. There are provisions for acknowledging the role of rural communities as contributors of landraces and farmer varieties in the breeding of new plant varieties . Breeders wanting to use farmers varieties for creating Essentially Derived Varieties (EDVs) can not do so without the express permission of the farmers involved in the conservation of such varieties. Any one is entitled to register a community's claim and have it duly recorded at a notified center. This intervention enables the registration of farmer varieties even if the farmers themselves cannot do this due to illiteracy or lack of awareness. If the claim on behalf of the community is found to be genuine, a procedure is initiated for benefit sharing so that a share of profits made from the use of a farmer variety in a new variety goes into a National Gene Fund.

Protection against Bad Seed

In providing a liability clause in the section on Farmers Rights, the farmer in principle is protected against the supply of spurious and/ or poor quality seed leading to crop failures. But at present there is too much left to the discretion of the

Plant Variety Authority which will fix the compensation. This could lead to arbitrary decisions and should be amended. (Sahai, 2001 a,b)

Rights of Researchers

All IPR systems must strike a balance between the monopoly granted to the IPR holder, in this case the plant breeder, and the benefits to society, in this case the farmers and consumers. Since nobody concerned with public interest would want plant breeding to shift into just a few hands, it is important to maintain competition and vitality in the plant breeding sector. That is why freedom and rights for other researchers to use all genetic material, including IPR protected material, is important. The Bill has provisions for researcher's rights which allows scientists and breeders to have free access to registered varieties for research. The registered variety can also be used for the purpose of creating other, new varieties. The breeder cannot stop other breeders from using his/her variety to breed new crop varieties except when the registered variety needs to be used repeatedly as a parental line. In that case authorization is required.

There is however some difference of opinion. Some view that the Indian law actually grants very restricted rights to researchers because of the acknowledgment of Essentially Derived Varieties, EDV. It is felt that all kinds of research will become subject to the breeders authorization if a protected variety is used for research. In the Indian Act, the Breeders authorization is needed for making EDVs.

Protection of Public Interest

The PPV legislation includes public interest clauses, like exclusion of certain varieties from protection and the grant of Compulsory Licensing. To secure public interest, certain varieties may not be registered if it is felt that prevention of commercial exploitation of such variety is necessary to "protect order or public morality or human, animal and plant life and health or to avoid serious prejudice to the environment".

The Act also provides for the granting of compulsory license to a party other than the holder of the Breeders certificate if it is shown that the reasonable requirements for seeds have not been satisfied or that the seed of the variety is not available to the public at a reasonable price. The breeder is entitled to file an opposition but should the charge be valid, the breeder may be ordered by the Authority to grant a compulsory license under certain terms and conditions including the payment of a reasonable license fee. Compulsory License however will not be awarded if the Breeder can demonstrate reasonable grounds for his inability to produce the seed.