

TRIPS AGREEMENT OF WTO AND INDIAN AGRICULTURE

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INTRODUCTION

Agriculture Policy has experienced a number of changes during the last two decades. This is due to liberalisation and globalization of Indian Agriculture. These policy changes are initiated in the later years of 1980's and early years 1990's, but are accelerated during later years of 1990's with India's joining in WTO. Among other important policy changes that occurred, include, India has recognised the importance of intellectual property rights to protect plant varieties. The new IPR regime has brought two important and far reaching changes in India. Firstly, the scope of the IPR regime is widened and secondly the rights of the owners of intellectual property made stronger. The extension of IPR regime to agriculture on improved varieties of plants is considered as widening the ambit of IPRs. The Agreement on TRIPs required the countries to introduce either new patent regime or an effective *Seri generis* system on plant varieties. All the member countries have to legislate laws pertaining to the protection of Plant Breeder Rights (PBR's) which are internationally recognized through UPOV (International Union for the protection of new plant varieties)¹. Normally, farmers develop new varieties of plants and in some cases; farmers provide source material to the Breeders for the development of new varieties. Hence, there is a need to balance between the Plant Breeders Rights (PBR's) and farmers rights. The TRIPs agreement in conformity with UPOV 1991 conventions claim to have made this balance.

The TRIPs agreement envisages under Article 27 that "member countries shall provide for the protection of plant varieties either by patents or by an effective *Seri generis* system or by any combination thereof". In fact Article 27 (2) excludes patentability of the inventions of the commercial exploitation that are necessary to protect public order ((Order Public) or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment.

Article 27(3) (a) excludes from patentability, the diagnostic, therapeutic and surgical methods for the treatment of human or animals. Articles 27(3) (b) excludes from patentability, the plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and micro biological processes. However, members should 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 paragraph shall be reviewed four years after the date of entry into force off the WTO agreement.²

Though the TRIP'S agreement on plant varieties and Sui generis system is accordance with the UPOV (1991) provisions, this new version has deviated from the earlier version, UPOV (1978).

UPOV (1991)

It is stated by some critics that the UPOV 1991 version seeks to enhance the rights of the modern plant breeders at the expense of the farmers. This has been done by i) Strengthening the rights of the breeders and ii) Restricting the domain of operations of the traditional farmers. The UPOV (1991) extend the scope of Breeders rights. In the past, UPOV convention protected farmers interests by allowing them to save protected varieties of seeds. Likewise, the breeders also enjoyed exemption for free access to protected varieties for use in further research and for breeding other varieties. However, UPOV convention 1991 has removed these exemptions which are available under UPOV convention 1978. This enhanced rights that the Breeders can enjoy under UPOV 1991 stems from the redefinition of the scope of their rights. While under UPOV 1978, Breeders rights had a limited scope, the amendment brought about in 1991 makes the rights all encompassing, with certain new advantages. Under Article 5 of the UPOV 1978, the Breeders rights with regard to seeds included a) production for purposes of commercial marketing b) Offering for sale and c) marketing. These provisions indicated that authorization of the Breeder was required if production of the planting material (seeds) was undertaken only for commercial purposes. This implies that Breeders authorization was not necessary for re using the planting material on the farm it was produced. This is popularly known farmers privilege. It is taken to imply that farmers were permitted to re-use the propagating material from the previous year's harvest. Further, farmers are allowed to freely exchange seeds of the protected varieties with their farm neighbours. These flexibilities available to farmers under UPOV 1978 meant for the traditional practice of reusing farm saved seeds and exchanging them with their neighbours. This could be carried in an uninhibited manner. However, the UPOV 1991 has provided certain new advantages to plant Breeders.

The scope of the Breeders' rights provided under Article 14 of UPOV 1991 includes the extension of their rights not merely to the propagating material, but to the harvested material and the products made of the harvested material. The Breeder rights defined to include a) Production or reproduction (multiplication) b) Conditioning for the purposes of propagation c) Offering for sale d) Selling or other marketing e) Exporting f) Importing and g) Stocking for any of the purposes. Thus the scope of protection leaves virtually no possibility for the farmers to re-use seeds without the authorisation of the Breeder (which was otherwise available under UPOV 1978). The farmers would be allowed to replant the seeds on their own farm but would be restricted from selling them for reproductive purposes to their farm neighbours without having to pay royalties or ask permission for the same.³

Most of the provisions of UPOV 1991 are inserted in the WTO Agreement on Trade Related Intellectual Property Rights (TRIPs). Which have far reaching effects on India?

IMPLICATIONS OF WTO AGREEMENTS ON INDIA (SEEDS SECTOR)

Under the influence of TRIPs agreement of WTO, India has experienced so many changes in legal system concerning protections of plant varieties, seed management patterns, Research and Developments (R&D) matters and issues relating to genetically Modified Varieties of Seeds. These changes occurred after the commencement of TRIPs agreement of WTO that was signed and launched for implementation from 1995 onwards. There has been a marked difference in all the above mentioned issues before and after signing of the TRIPs agreement. While the opinions of experts and scholars differ on positive and negative impacts of India signing TRIPs agreement and its effects on Indian agriculture, there emerged a consensus on evolving certain mechanisms to be adopted to protect traditional knowledge, practices and rural based innovation in the agricultural scenario.⁴

India's experience with Intellectual Property Rights (IPRs) and agriculture is closely linked to the issues of an important agricultural input i.e., seeds a) These issues included, the seed policies, genetically Modified Technologies in seeds expansion of seed markets with the entry of multinational corporations and other issues arise as a result of India's entry into TRIPs framework of WTO. The changes in these issues can be perceived as an impact of TRIPs agreement on Indian agriculture. The TRIPs agreement of WTO emphasizes in 27.3(b) section that the member states are to provide plant variety protection through a Sui generis (of its own) system. Accordingly all the changes have taken place.

SEEDS AND AGRICULTURE

Seeds for agriculture are developed and supplied by a) Farmers b) Government and c) Private Sector Seed Companies. India is a land of great agricultural biodiversity. The genetic material derived from various plants contributes the production of food crops in India. The genetic material useful for plantation is in the form of germ plasm. The collection and outflow of germ plasm is done by farmers and scientists to develop various plant varieties. Hence, the process of evolving and developing germ plasm, as microorganisms, generates different seed varieties and plant varieties. There have been efforts by farmers and scientists preparing gene banks in the world in general and India in particular. India as a birth place of Rice and was once a home to at least 2 lakhs Rice varieties, with a range of different properties. These varieties provided a wide choice of seeds to farmers to cope with the type of soil, location of the farm etc. Farmers maintain crop varieties and adapt them to local ecosystems and weather conditions. Certain group of farmers in every area always maintains and evolves crop varieties. These farmers are called the "Custodian Farmers". For example, for generations, the tribesmen of Wayanad district of Kerala have employed traditional methods to evolve and preserve 35 varieties of indigenous rice seeds. These include aromatic seeds, short term rice varieties, medicinal varieties and drought resistant varieties.⁵ Farmers who conserve a variety of seeds automatically become an integral part of the informal seed system. With their knowledge, they can also recommend

varieties for specific conditions. Further a famous voluntary Organisation called the Gene Campaign which works in Jharkhand and Bihar also conserves the traditional seed varieties. The Garhwal region of Uttar Pradesh is encouraged by a seed saving campaign under the banner of "Beej Bachao Andolan" (Save the seeds movement). Likewise in Tamil Nadu, the Green Foundation focuses on community based seed evolution and supply.⁶

The governments at the union and states in India are also encouraging research on seed varieties. In fact, the National Seeds Corporation, Farm Corporation of India and 13 state level seed corporations under the Department of Agriculture are coordinating research activity on seed varieties. The Indian Council of Agriculture Research (ICAR) has been playing a key role in developing agricultural inputs like seeds and other technologies. The Government's intervention in this regard is aimed to conserve traditional plant Varieties and evolve new seed varieties.

There have been efforts at the Global level by Inter governmental Organisations maintaining Global Seed Vaults. The International Rice Research Institute (IRRI) in Philippines conserves all the rice varieties of the world. The International Centre for Agricultural Research in the Dry Areas (ICARDA) conserves over 1, 35,000 seed samples of wheat, barley, oats and other cereals. The International Crops Research Institute of Semi-Arid Tropics (ICRISAT) of Hyderabad saves several thousand seed samples. The Global Seed vault owned by the Government of Norway manages 4.5 million seed Varieties at Svalbard as Frozen seeds.⁷

The government encourages scientists to develop different crop varieties. For example, mangrove species developed by scientists provide gene to develop crop varieties with salinity tolerance. Transgenic rice strains have been developed by scientists of M.S Swaminathan Research Foundation (MSSRF), Deep water rice Varieties developed by scientists provide opportunities to grow crops in flood prone areas. These are all the achievements of Indian Scientists. There are also national and international centres that encourage Research in seed varieties. The Nordic Genetic Resource Centre (Nord Gen) located at Sweden conserves and evolves genetic material of farm animals and plants. To match the efforts of European countries, Indian Authorities are initiating a Perma frost gene - seed bank at Chang in Ladakh and also established National Bureau of Plant Genetic Resources in New Delhi. Thus Indian Scientists are in a position to conserve and create new plant Varieties and claim prospective patents.

The seed varieties industry also develops and supports new varieties of seeds in India. For a long time, till late 1980s, the seed Industry could not expand itself as a noteworthy industry and was narrowly developed in the shadow of the government. However, the new policy on Seed development (NPSD) of 1988 encourages private Investments in seed sector. As a result the seed industry comprises of about one hundred major seed companies is operating in India. As a consequence to this development, the seed companies evolve new seed varieties and demand for stronger protection of Intellectual Property in the form of patents on plant Varieties. Hence, the pressure on the government to introduce Plant Breeder Rights (PBRs) or similar rights in compliance with TRIPs agreement emanate not only from the other member countries of WTO,

but also from the domestic seed companies. These companies seek legal protection for plant varieties.

PATENTS AND SUI GENERIS

The TRIPs agreement excludes plants from patent system but insists that plant Varieties developed by farmers, academic and research institutions and seed industry have to be covered by some form of effective patent system. This can be done either by patents or by an effective sui generis system or a combination of both. The phrase 'sui generis' means a system of its own. That means, every member country has the choice of evolving the system of protection of plant Varieties. However, this Suigeneris system must be effective. Though the TRIPs agreement has not provided any criteria for judging the effectiveness of sui generis system, ultimately the WTO regime has enormous powers either to accept or reject the ineffective sui generis system of the member countries. The TRIPs agreement of WTO has not suggested any model for the protection of Plant Breeder Rights. But it has recommended the model evolved by UPOV 1991.

The patent system or the sui generis model evolved by UPOV 1991 is criticised by some scholars. It is believed that this model is more suitable to the socio economic context of industrialised countries. The farmers in these countries do not have much role over plant breeding or seed supply. However, in the case of developing countries farmers themselves are engaged in the seed production and farmers are the main source of supply of seeds to fellow farmers. Almost 65 percent of the seed requirement is met through the exchange system which has been prevalent among farmers in countries like India.⁸

CHANGES IN SEED POLICIES AND LEGAL FRAME WORK IN INDIA

The Government of India declared seeds as an essential commodity under the Essential Commodities Act, 1955. The Indian Seed Act, 1966 provided a general policy and institutional framework for supply of seeds to agriculture. The basis objective of the Act is to regulate the quality of seeds and notify various varieties of seeds by the central government with clear certification. At the state level, various State Seed Certification agencies are authorised with rigorous seed standards through complex field inspections and laboratory testing. Thus the seed production and supervision had been mostly done by the public sector. There could also be private sector seed companies earlier with insignificant role. Hence, the government of India has brought out a penalty provision under the Essential Commodities Act. Under clause 'BC Accordingly, Seed Control Order 1983 was promulgated and that came into effect from July 1, 1994 after prolonged legal challenges by seed dealers associations. In accordance with the provisions of the Seed Act 1966, Central Variety Release Committee (CVRC) is to be constituted for approval of seed varieties and cultivars. In spite of these measures, there had been persistent shortage of seed varieties resulting in dearth of food grains in the country during 1960s. This has forced the government to adopt the New Agricultural Strategy (NAS) with High Yielding Varieties of Seeds. As a part of this strategy, production and distribution of seed

varieties were undertaken by the public sector. Thus the public sector seed industry was the major player which undertook breeding and multiplication. During the early decades, the presence of private sector was negligible.⁹

In the later years, due to depletion of ground water and increase in the extent of cultivable land, non-food crops were encouraged, particularly the dry land areas had initiated crops like cotton, groundnut, maize, chilli etc. These crops are known as Identified Dry (Id) Crops. However, the public sector could not adequately cater the hybrid seed varieties for this phase and private sector was encouraged. The government has formulated the New Policy on Seed Development 1988 (NPSD) and thereby liberalized regulations on imports and exports of seeds and Foreign Direct Investment (FDI) in seed Sector. Under the New Policy on Seed Development, import of seed, planting material of vegetables, flowers, ornamental plants and fruits are kept under Open General Licence (OGL). This policy gave boost to private seed sector in terms of Research and Development and Intellectual property Rights. The Policy facilitated the entry of multinational Corporations (MNCS) into the domestic seed industry. Later, the government of India brought out Seed Act in 2000 and the provisions of which are reiterated in the National Seed Policy in 2002. This Act is revised in 2004 and was formulated in consonance with the Government of India stand regarding the Trade Related Intellectual Property Rights agreement of WTO. This Act was aimed to not restrict the farmer to save, use, exchange, share or sell his farm seeds except that they should not be sold under commercial brand name. For the first time, this Act made the registration of plant varieties or seed varieties compulsory. In fact, the government of India has recognized the need for a separate legislation for protecting the Rights of the farmers based on 'Sui Generis' System.

PLANT VARIETIES PROTECTION AND FARMERS RIGHTS (PPV & FR) ACT, 2001

Under section 27(3)(b) of the Agreement on Trade Related Intellectual Property Rights (TRIPs) of WTO, member countries are required to protect plant varieties either by patents or by an effective 'Sui Generis' System of protection or by a combination of both these systems. India has opted for protection of plants based on 'Sui generis' system and brought out the legislation as 'Protection of Plant Varieties and Farmers' Rights (PPV & FR) Act 2001. The Act is meant to protect the germ plasma of any new plant variety if the novelty, distinctiveness, uniformity and stability (NDUS) criteria are satisfied. An important feature of the Indian Act is that it allows farmers to save, sow and sell seeds even for a protected variety.¹⁰

The "Plant varieties protection and Farmers' Rights Act (PPV & FR Act) is the first legislation of its kind that simultaneously recognizes and rewards the contributions varieties. This concept is in conformity with the provisions of convention for Biodiversity and provisions of Food and Agriculture Organization Treaty. It satisfies the need for enacting a Sui generis legislation for protecting the Intellectual Property Rights of plant breeders stipulated under the WTO Agreement in Agriculture. The Right conferred in the plant varieties protection (PVP) is also

called Plant Breeders' Right (PBR) with farmers' privilege. This means that a farmer shall be entitled to save, sow, re sow, exchange share or sell his farm produce including seed variety of protected germ plasma. However, the farmer is not entitled to sell branded seed of a variety protected under this Act.¹¹

The PPVFR Act envisages the establishment of an Authority as protection of Plant varieties and Farmers' Rights Authority. This Authority became operational since 11 November, 2005. The objectives of the authority under Clause 22 and 45 of the Act, 70(2)(a) of PPV & FR Rules 2003 and PPV & FR (Recognition and Reward from gene Fund) Rules, 2002, are the following:

1. Establishment of an effective system for protection of Plant Varieties, the rights of farmers and plant breeders and to encourage development of new varieties of plants.
2. Recognition and protection of the rights of farmers in respect to their contribution in conserving, improving and making the available plant genetic resources for the development of new plant varieties.
3. An accelerated agricultural development in the country by stimulation of investment for research and development both in public and private sectors.
4. Facilitate growth of seed industry to ensure the availability of quality seeds and planting material to the farmers.

The PPV & FR Authority shall maintain a National Register of Plant Varieties. The Certificate of Registration shall be valid for a minimum of 6 years to a maximum of 18 years. It also provides for compulsory licensing to meet the reasonable requirement of the public for seeds and other propagating material. The PPV FR Act 2001 is considered to be a model Act for Developing Countries and the Least Developed Nations.¹²

REFERENCES:

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