

Farmers' Rights and Plant Breeders' Rights under Indian Regulations of Plant Variety Protection: A TRIPS Compliant Harmonised Coexistence

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India's 'Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001' was enacted by its Parliament in accordance to the Article 27.3(b) of Trade Related Intellectual Property Rights (TRIPS) Agreement. In a significant deviation from the contemporary legislations around the world and also the International Union for the Protection of New Varieties of Plants (UPOV) Acts (1973 and 1991), the PPV&FR Act is a *sui generis* option, that provides an effective system for the protection of plant varieties, the rights of farmers and plant breeders that encouraged development of new varieties as well as those which were in common knowledge of the farmers or were in the possession of farmers traditionally. This article explains how the Indian legislation is the best fit to match the requirements farmers as well as plant breeders, keeping in view the local agricultural situations, societal constitution and livelihood mechanisms, especially for small-holder farmers.

Introduction

In compliance to the Trade Related Intellectual Property Rights (TRIPS) Agreement, the Government of India adopted the *sui generis* option to provide for the establishment of an effective system for the protection of plant varieties, the rights of farmers and plant breeders that encouraged development of new varieties as well as those which were in common knowledge of the farmers or were in the possession of farmers traditionally. 'The Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001' was enacted by the Parliament of India in accordance to the Article 27.3(b) of TRIPS Agreement. In a significant deviation from the contemporary legislations around the world and also the International Union for the Protection of New Varieties of Plants (UPOV) Acts (1973 and 1991), the Parliament considered it necessary to recognize and to protect the rights of the farmers in respect to their contributions made at any time in conserving, improving and making available plant genetic resources (PGR) for the development of new plant varieties in a predominantly agriculture driven economy, industry and livelihood options in a country that had more than 70% of its population living on agriculture directly of whom, more than 85% were small holder farmers (Agriculture Census, 2015-16, <https://agcensus.nic.in>). After two decades of the enactment, with global

commerce & trade reforms under WTO and other such international negotiations in place, more than 50% of India's population still continues to be that of farmers (Annual Report 2020-21, Department of Agriculture, Cooperation & Farmers' Welfare, Ministry of Agriculture & Farmers' Welfare, Government of India).

The Indian legislation has made sufficient provisions to protect the interests of plant breeders from both private and public sectors with overarching recognition of the farmers as conservers of traditional plant varieties, landraces, wild relatives of crops for specific traditional practices of saving, producing, sharing or exchanging seed amongst farmers as their farm produce while fully recognizing the contributions of both commercial plant breeders and farmers in plant breeding activity in developing new varieties (PPVFRA, 2001).

It is this unique balance between plant breeders' rights and farmers' rights that is maintained by the Indian legislation that has been interpreted as contradictory or conflicting approach in protecting plant breeders' rights by several legal or regulatory consultants or practitioners. Without exception, such contradictions are based primarily on their conviction about UPOV Acts of 1973, more appropriately of 1991 as the premise, any deviation from which is held as a contradiction to international standards, despite conformity to TRIPS as well as accepted laws of the land. We explain here

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how the Indian legislation is the best fit to match the requirements of the beneficiaries of the products of the Act, majority of whom are farmers followed by the plant breeders. Globally, plant breeders' rights centric regulations are the obvious best fit only to the plant breeders; however such regulations disregard the local agricultural situations, societal constitution and livelihood mechanisms among small holder farmers dominated populations.

What is the Meaning of Protection of Plant Varieties in India?

The protection exercised through registration of a plant variety by its designation by the PPV&FR Authority, means no one can sell, export, import or produce the seed or propagating materials of such protected (registered) plant variety without the registered breeder's (owner's) permission.

Protection of a plant variety is an intellectual property right (IPR) that the breeder (who could be an individual, farmer, community of farmers, institution or a government) enjoys over the variety along with designation in the notified plant species as the said variety's owner, who is entitled to plant breeders' rights on the variety with the exception of farmers' rights on the variety as provided in the Act. This shall remain with the registered breeder till he assigns it to anyone else, for the entire period of protection for the purpose of preventing any other person from making economic benefit from it or from assuming any of the rights to which the breeder is entitled to, without permission of the registered breeder.

The protection of a plant variety with its denomination also means that no one including the registered breeder can sell any other variety with the same denomination or sell the protected variety with any other denomination, commitment of which is also a punishable act of infringement.

Farmers' Rights on Plant Varieties in India: Integral to National Agriculture and Food Security

India is the only country which has provided IPR to farmers or communities of farmers over the traditional varieties, wild relative species of cultivated traditional crops, landraces conserved by them. This is to protect their rights on these materials in order to prevent utilization of such genetic resource by plant breeders without sharing any benefits realised from such varieties with the conserver farmers or farming communities, in

Section 26 of PPVFR Act (2001). In doing so, India at once recognizes existing plant varieties also, which are not novel but are in trade and in the common knowledge of farmers, since a period not beyond the duration of the period of maximum protection, retrospectively from the date of registration (these are generally the varieties in possession of plant breeders from public or private sectors), or those regionally well-adapted traditional varieties with their own value in trade, cultivation and usage with the farming communities of the country. This category involves the traditional and landrace varieties. In contrast, other regulatory legislations globally (broadly following either UPOV 1973 or UPOV 1991 Acts) only recognize new plant varieties while all other beyond the novelty acceptable period are relegated to a status of being in public domain for anybody to access.

It is through this exception for acknowledging the existing non-novel varieties as well as traditional or landrace varieties, the Indian law facilitates formal entitlement of farmers as well as plant breeders to their rights on such already existing varieties within the protectable period of 15-18 years before the date of application by the plant breeders concerned; or exclusive farmers' rights on those varieties known to be existing traditionally as heritage or as landraces in the community for generations, to exercise their rights on the materials for a further period of 15 or 18 years for their rights on these varieties, from the date of registration. In all other countries where protection of plant varieties is in practice, they however, categorise all the latter groups of landraces as well as varieties in common knowledge as varieties in public domain for anyone to access and use freely.

Some Specific Features of Indian PVP and FR Exercised by Plant Breeders and Farmers of India unlike their Counterparts in Other Countries

- Voluntary option to register for Plant Breeders' Rights
- Voluntary option for breeder to market without either getting the seed certified or released under Seed Act procedures (Seed Act, 1966)
- Voluntary registration under Seed Act procedures for seed quality can be practiced equally independently without protection of the plant breeders rights
- Registered breeder can authorise others to exercise any of his rights or engage any agency or licensee to exercise any of the plant breeders' rights

- The rights on variety of the plant breeder limit only to its use as seed and not as a produce or harvested product from the seed/seeding materials
- Farmers have their own rights on the registered protected varieties during period of protection
- Farmers who infringe the plant breeders rights out of genuine ignorance are given benefit of not being guilty to infringement owing to their ignorance on the protected status of the particular variety
- Farmers can claim compensation on less than minimum performance expected from the variety upon following standard mentioned package of practices on a plant variety whose seed has been legitimately procured by him through authorised seller of the registered variety in the current season.
- Farmers have the right to get the seed of protected varieties on the reasonable price without being subjected to predatory market practices
- Farmers have right to get the assured supply of seed through compulsory licensing, in case the original licensees fail to do so
- Farmers have the provision of getting recognition and rewards for their contribution in conserving and adding value to traditional genetic diversity

Prevailing Situation of Seed Trade and Marketing Network in India

In India, the existing seed trade and marketing network does not facilitate a shift completely to formal seed system for distribution, sale and marketing of protected varieties. Presently, seed distribution, production and marketing through informal system is 50-55% with the average seed replacement rate hovering from 27% in groundnut to 61% in pigeon pea during 2019-20 (Fig. 1) among major crops (DAC&FW, MoA&FW). In traditional varieties and region-specific local crop species, there is hardly any such possibility due to lack of seed related activities among private or public sectors. Varietal Replacement Rate (VRR) is one of the important factors in realizing higher crop productivity. The pace of progress in food production is largely dependent upon the progress of seed programmes that enable supply of quality seed of high yielding varieties with superior genetics. In India, barring a few commodities such as wheat wherein the share of seed replaced varieties released in the last five years was 59.5% while the varieties released in the last ten years made up 92.3% of the replaced seed during 2022-23, the situation in other crops though gradually improving is as not as rosy for example rice wherein share of varieties, notified during last five years and ten years in total breeder seed indent were only 28.4% and 64.8 % during 2022-23 as compared to 12.8 % and

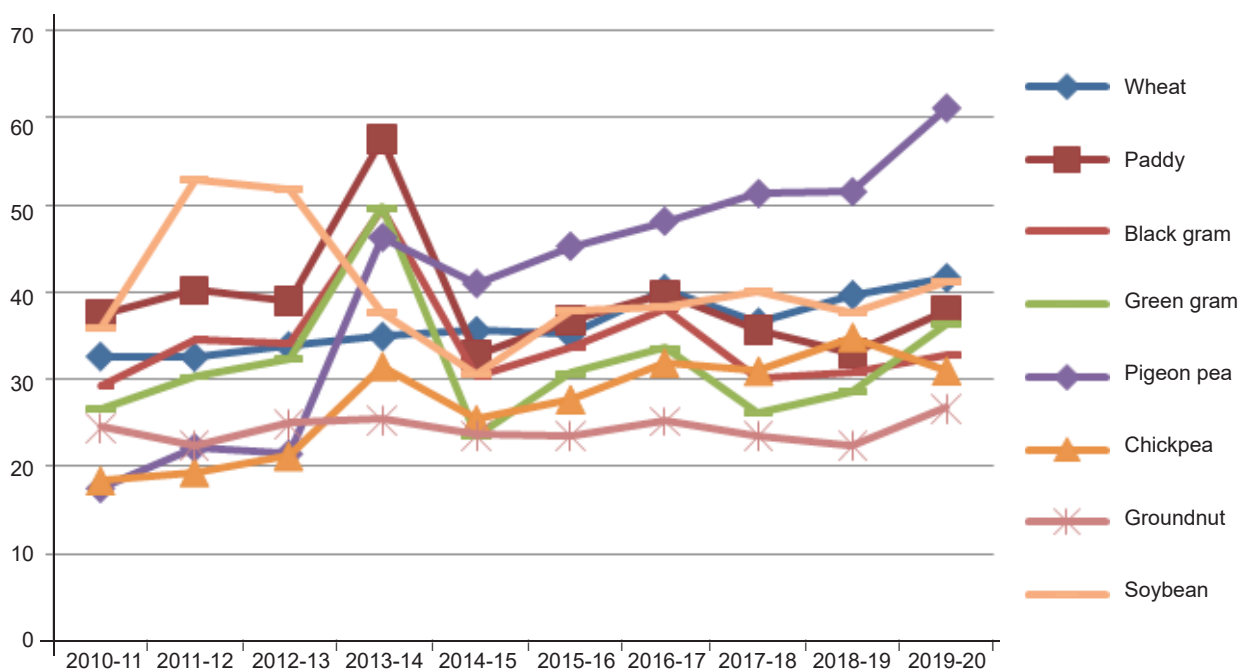


Fig. 1. National seed replacement rates among major crops (%)

43.2 % during 2018-19. If one accounted to average seed replacement over the entire country to 45%, then the magnitude of recent varieties in cultivation will amount to an estimated 26.8% and 41.4% of total area of wheat, of the varieties less than five and ten years old, respectively.

The total quality seed availability is 48.37 million tons (Agricultural Statistics at a Glance, 2021) in the country which as per varying demand and seed supply situation of various states would not at all suffice the seed requirements of the country. Registration for protection of new plant varieties is compulsory prior to marketing of a variety in all UPOV following regulation systems. If the same were to exclusively be practiced in India without the above described farmers' rights, consequences would be as follows:

- a. A huge vacuum in total food production compromising country's food and nutritional security would happen by taking out the informal seed system from seed trade which will mean non-availability of authorised seed to plant a major chunk of 200 million ha planted over multiple seasons with 140% cropping intensity.
- b. It would take more than 4 to 5 times the current investment for the entire area to be covered by formal seed system that would disbalance the entire economics of agricultural seed trade in India.
- c. The sketchy and unorganized seed distribution would hike the demand based increased seed price to an extent that may make the seed unaffordable or much more dearer than today to a farmer willing to invest in new seed.
- d. UPOV 1991 exemptions to allow self-saved seed would not have enabled more than 70% of seed-deprived farmers to plant seeds as less than 30% of farmers have any facility for saving their seed.
- e. Extant plant varieties in trade beyond 15 years of their release or notification or development make up for lion's share among seed trade in India. If these were not to be included, as legal seed as UPOV 1991 or 1973 apply only the new varieties, then the unavailability of quality seed of only new plant varieties would have further escalated the demand for new seed while further increasing the estimated number of farmers who would be deprived of the new variety's seed. The dimension is unimaginably large for most of the crops, whether sown in less

than one million ha or more than 10 million ha purely because of the small size individual planting spread over a large geographic area of each crop, making it difficult for any seed producer to reach the spots in time.

The above scenario that is highly probable would not only cause a large gap between the potential and actual production in different commodities including those which are necessary for food security ingredients as per the National Food Security Act (NFSA), 2013 and for nutrition management as committed to the Sustainable Development Goals (SDGs) due to gross reduction of production in general and litigation related non-marketability due to prosecution proceedings or legal proceedings likely to escalate from claims on violation to the plant breeders right.

Farmers Rights Under PPV&FR Act

Integral to prevailing Indian agriculture, are the farmers' rights to sow, resow, share, exchange and sell seed as farm produce of varieties including protected varieties, under Section 39(iv) of the PPV&FR Act. This provision only facilitates the survival with enrichment through better plant varieties of the informal seed sector. It also enhances the fast spread of the new varieties protected because of the sharing or selling of self-saved seed or farm produce of a new variety in a given region where the registered breeder may not have a reach or agency to cover seed selling

It also allows an inbuilt mechanism of evaluation of performance by the degree of economic satisfaction a farmer receives by growing of crop raised from quality seed obtained from the genuine authorised source that automatically becomes the base for comparison of the quantity or quality of the produce from self-saved or neighbour produced seed in the next season. The word of mouth spread of this information motivated investment for new seed after first experience of use self-saved seed facilitated by the right to resow or exchange or share or sell farm produce as seed.

It goes without saying that even the farmer who has saved seed of previous season crop has an access in time to plant new seed from the formal authorised agency; he would on first priority procure new quality seed before choosing his own seed. There is no exception to it. When the farmer knows that his right to claim for compensation is operational only on new seed procured legitimately from authorised seed seller of a plant variety,

even if available with himself or neighbourhood, he is bound to first procure the available new seed from the seller than use his or neighbour's seed. The farmer also is aware that the new quality seed has assured germination, purity and viability which he cannot take for granted on his own saved seed even in the case of self-pollinated crop species.

The above points are only a few which immediately ensure that the provision of free-access to protected unbranded seed known as "brown bag seed" in trade, is more of generation of knowledge and experience that is also shared along with shared seed on the variety's performance that comes as bonus to the registered breeder who does not have to invest in laying out a demonstration.

Conclusion

Thus, for a country with historical agriculture that is the backbone of its culture and economics, it is most essential to respect the rights traditionally enjoyed by the farmers who are the custodians by heritage of the plant and crop diversity as well as production through

generations, while encouraging them to adopt new and improved plant varieties in different crops with the aim to improve their livelihood support systems and income. The PPV&FR Act is thus, a balancing act to take care of its humongous agrarian base.

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