



Farmers' Rights in India: "Globally Sui Generis"¹

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"Globally sui generis" is undoubtedly an oxymoron. The term *sui generis* is a Latin phrase, meaning "of its own kind or genus" and hence "unique in its characteristics." It exists in a contradistinction with any principle or regime that is universalised or globalised, in short, with anything that infringes or threatens to subsume its own particularity. It is the subversion of this particularity that the heading alludes to in the conceptualisation of farmers' rights in general and in the Indian *Protection of Plant Variety and Farmers' Rights* (PPV&FR), 2001 legislation in particular.

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Farmers' rights talk began in the mid-1980s within a certain global-law format and this ensured that multiple *sui generis* histories underwent a discursive delimitation at its inaugural moment. While rhetoric, talk, pronouncements, and the "objectives" section of international treaties and conventions invoked plurality, stewardship and indigeneity, the legality of farmers' rights was clearly articulated within the discursive frames of innovation. This paper takes the farmers' rights legislation in India—the PPV&FR Act, 2001—in order to demonstrate how the rhetoric of legal pluralism has tended to obscure the deep connection farmers' rights have retained with international legal regimes and narratives of innovation.

The aim of this paper is to draw attention to the deep interconnections of *sui generis* farmers' rights with global regimes of intellectual property that are retained. As a result, it ends up simultaneously addressing farmers and breeders, stewards and innovators, customary rights and Intellectual Property Rights (IPR). The paper will argue that the ambivalence of its address restricts the authority of stewardship and customary claims of local farming communities in general. Making room for these double inclusions within the framework of law has



meant that a series of conflictual interplays get inscribed in the content of entitlements that are legalised in instruments such as the PPV&FR Act. Conflicts between the farmer and the breeder, between innovation and stewardship, between nature and culture are shown to be resolved through a doubly inscribed farmers' entitlement that faces two ways, i.e. both towards a cultural-local and the scientific-universal. On the one hand farmers' rights hold out the promise of legal entitling farmers' innovation claims and intellectual property, on the other they disable the more conventional, determinate property rights that farmers have in seeds, crops, grain, plants and land. I will discuss the proposition that the diminished terrain of conventional property rights is an outcome of the discursive location of farmers' rights within the merged protocols of property and innovation.

Farmers' Rights: Rhetoric and Conceptions

Farmers' Rights have an odd genealogy, both in India and globally. Historically, there was nothing like a 'legal' conception of a farmers' right, despite customary rights of the farmers being as old as history. A legalised conception of farmers' rights began to be framed in the context of, and within the assemblage of intellectual property rights in plant genetic resources. It began to be argued that the two concerned international agreements—the Union for Protection of Plant Varieties agreement (UPOV—1961, 1978, 1991)², and the Trade Related Aspects of Intellectual Property Rights agreement (TRIPS—1995)³—both set up to give crop plant breeders exclusive rights over the varieties they develop, disregard customary rights of indigenous and farming communities to their genetic resources and associated knowledges. UPOV and TRIPS, it was argued, substantially broadened the gap between source materials and improved varieties in terms of value and ownership rights attached to them.

These agreements left the farmers, the traditional breeders and conservers, outside the domain of intellectual property rights in agro bio-resources and associated knowledge. It was this omission that spawned the debate and the movement for a formal recognition and institutionalisation of farmers' rights. Regine Anderson in her work on the history of farmers' rights, records that the idea of farmers' rights came up in the early 1990s "as a countermove to the increased demand for plant breeders' rights" (Anderson 2005: V). Voiced in international negotiations, its purpose was to draw attention to the unremunerated innovations of farmers that were seen as the found-



ation of all modern plant breeding (*ibid.*).

There are persuasive arguments in favour of farmers' rights that are articulated at various levels. The starting point of the core argument is that biotechnology led innovations in plant varieties and animals did not happen spontaneously. It used as a base the knowledge of seeds and breeds and plant properties, generated, shared and exchanged over thousands of years. Farmers, in most developing countries, have been the main actors involved in saving, selecting and breeding seeds to produce new varieties with better suited traits, biodiversity management and so on. They have played the combined roles of producer, consumer and conserver. They are thus the original rights holders of agricultural resources.

The emerging rhetoric of farmers' rights was an acknowledgement that while commercial breeders were protected by either plant breeders' rights or through patents in plant varieties, farmers' contributions as preservers and developers of the gene pool remained unrewarded and unprotected.⁴ There was also a growing understanding that patenting will seriously limit the access that farmers, the poor in particular, have to the genetic resources on which their livelihoods depend. The rhetoric acknowledged that livelihood rights of the farmers needed to be protected—particularly in developing countries which are predominated by small and marginal farmers—by securing their access to the genetic resources under threat by patents and plant breeder rights.

The conception of farmers' rights has added a new dimension to the existing discourse on rights. There was an acknowledgement that farmers deserved and needed protection, as a matter of 'right'. The conception of farmers' rights was articulated differently at different forums. On the one hand, movements and organisations like Via Campesina⁵, and GRAIN⁶, saw farmers' claims as foundational claims of liberty and security and prior to rights of breeders. On the other hand, organisations like FAO (United Nation's Food and Agriculture Organisation) recognised farmers' claims as stewards of crop and plant genetic resources, but underscored the need to harmonise farmers' rights with breeders' rights.

A FAO report on India had advised India to formulate plant breeders' rights in accordance with UPOV while 'also' recognizing farmers' rights (FAO, 1993). A website hosted by the International Treaty for Plant Genetic Resources for Food and Agriculture (ITPGRFA)⁷—one of the main FAO instruments for the protection of farmers' rights at the international level—rather candidly spells out the parametric conditions for



the implementation of farmers' rights and admits that any conception of farmers' rights will ultimately need to be synced with international imperatives.

The extent to which Farmers' Rights can be implemented in a country is not only dependent on the needs and priorities within the country. Often it is also subject to the obligations that the country has towards various international and regional agreements. *Thus, harmonization of Farmers' Rights is not only important at the national, but also at the international level.*⁸ (Emphasis added)

Agenda 21 of the UN Conference on Environment and Development (UNCED) also reflected these concerns.⁹ The International Treaty for Plant Genetic Resources for Food and Agriculture (ITPGRFA) 2001, which emerged from the resultant negotiations, mandated national sovereignty over plant genetic resources, a mandate that served to make the commons a national heritage rather than a common heritage of mankind.¹⁰

The climate was thus set for the institutionalisation of India's *sui generis* legislation. The PPV&FR Act adopted a model of "co-equal" rights in which both breeders and farmers were treated at par and considered to be valid claimants of protection of the varieties they innovated. In many ways the Indian law went beyond the construction of farmers' rights in international conventions and treaties like the ITPGRFA and the *Convention of Biological Diversity* (CBD), 1991.¹¹ It treated farmers not just as stewards of biotic reserves and resources who were entitled to benefits, but also as innovators of plant varieties and creators of intellectual property. As Rangnekar points out, India "exercised legal imagination and shrewdly forum-shopped to introduce countervailing norms and principle."¹² India chose to combine TRIPS style patent protection, UPOV style breeders' rights and some measures of farmers' protection.¹³ It adopted a *sui generis* model, which grants farmers rights but found no contradiction with the prospect of queuing up for UPOV membership that, as an inter-governmental organisation, privileges and pushes for the protection of (technological) breeders and their intellectual property claims.¹⁴

In order to create spaces for the rights of local farming communities and indigenous peoples to control and access their agro-genetic resources, it was argued that an alternative *sui generis* conception of rights, creatively based upon the historical ways and systems of local communities, needs to be devised and incorporated in the legal frame-



works and instruments governing international exchange of biogenetic resources. The use of the terminology *sui generis* is significant: it encompasses a large array of different, locally peculiar and meaningful organisational and cultural realities. Conceptually, it allows for a reflection on plural and perhaps collective attitudes towards the ownership, use, custodianship, stewardship, sharing, and enjoyment of resources.

In various countries including India, it enabled national states to use TRIPS exception under Article 27.3 (b) and adopt *sui generis* provisions that protected farmers' claims, even as it mandated protection for breeders. It further enabled countries like India to fill out the legal meaning of farmers' rights in terms of a content that was wide-ranging and expansive. *The Plant Variety Protection and Farmers Rights (PPV&FR) Act, 2001*, is a good example of *sui generis* legislation that accorded the Indian farmer entitlements that were encompassing and a space that was co-equal with that of the breeder. One could allege that it was a concept that had searched and found its content.

This paper, however, seeks to take the question of content or the legal form, a step further. Content, in many ways, is the speech of law that authorises the bearer of the right and spells out the terms of what law authorises. However, an exclusive focus on the capacious content of farmers' rights can serve to divert attention from how access to the content is disabled at various levels in the practical play of this right. While rights are instruments that provide access to resources and liberties, access to a right is a matter that is relatively under-reflected. What kind of access law provides is an important question, but an equally important question is, what kind of access is there to law in general? I want to supplement the focus on the content of rights with questions of access and then relate it to a deeper understanding of law that reveals the embedded discursive strains of innovation in the articulation of farmers' rights.

Farmers' Rights in India: The Background

It is important to place farmers' rights in the larger context of policy shifts during the late 1980s and the 1990s. There are well-documented studies that confirm that till the late 1980s, plant breeding in India was largely the preserve of the public sector (Chandrashekar & Vasudev 2002; Chaturvedi 2002; Kochupillai 2011; Manjunatha 2013; Rao 2004; Seshia 2002). It was driven by a widely shared perception that construed proprietary rights over plant genetic resources as inimical to the dispersion of common pool resources like seeds. However, from



the late 1980s, a discernible shift in perception, fuelled by policy shifts towards liberalisation of economy privatisation of resources and, began to be marked. In keeping with these larger trends, the idea that privatisation of the seed sector and plant breeders' rights would facilitate entry of improved breeding technology began to circulate in various policy circles and soon began to influence institutional reasoning and design. These trends also corresponded with global trends that saw a correspondence between capital accumulation and plant variety protection, more specifically between progressive commodification of the seed and privatisation of plant genetic resources (Fowler 1994; Goodman & Redclift 1991; Goodman et al. 1987; Kloppenburg 1988). The TRIPS and the UPOV, in 1995 and 1991, in many ways set the global template for the codification of rules and norms that were to govern trade and innovation of plant genetic resources. India was simply enacting the same developmental story.

The Indian route to "alignment", with international plant variety protection regimes, however, was not a straightforward story of mimicking the patent regime of TRIPS or the breeders' rights regime of the UPOV. Breeders' rights in India were mostly an outcome of the globalising tendency of capital and the mandated integration of national policies with international trade law. But the Indian plant-variety-protection story acquired a certain particularity. The plant variety protection talk was peppered with some concern and advocacy for farmers, particularly the small and marginal farmers. One of the primary drivers of this talk was contestation within certain spaces of the civil society that resisted an un-moderated alignment with the global plant variety protection regimes. While the impulses of international trade and innovation discourse were propelling Indian responses towards a more globalised regime of plant variety protection, farmers' campaigns and movements made farmers a distinct political constituency that demanded legal and political accommodation.

The threat of privatisation and globalisation of the seed market mandated by TRIPS compliance, triggered widespread protests by farmers' lobbies, environmentalists and civil society networks. In 1993, half a million farmers participated in a historic Bija Satyagraha—a Gandhian mode of protest for seed sovereignty—rally at Bangalore's Cuban's Park. Navdanya—an organisation set up by environmentalist, Vandana Shiva—was at the forefront of the "Bija Satyagraha" movement, "to keep seed in farmer's hand and to not cooperate with IPR laws that make seed a corporate monopoly, and make seed saving and



seed sharing a crime."¹⁵ This was the first internationalised protest against the WTO.

The Karnataka Rajya Raitha Sangha (KRRS—Karnataka State Farmers Organizations), described by Via Campesina as a "key actor in the global peasant revolt", represented another face of the protests and dissent prevailing in India.¹⁶ As part of Bija Satyagraha movement, KRRS used peasant seeds as a symbol of peasant resistance against seeds patented by corporations like Cargill. In 1998, opposition was launched against Monsanto and the "Monsanto Quit India" campaign was launched by various farmers' organisations and NGOs including Navdanya and the KRRS¹⁷ (Shiva 1999). There was a call by KRRS for direct action by farmers against biotechnology. Operation "Cremation Monsanto" was launched; it termed agro-giants like Monsanto, Novartis, Pioneer etc. "corporate killers" and demanded their ouster from the country.¹⁸

It was in this climate of dissent, protests, and apprehensions in policy circles that breeders' rights were introduced in India in 2001. Jostling for political space and legal endorsements, the policy instrument was prized open to make room for farmers' rights. The oppositional public attitudes towards globalisation in general and seed monopolies in particular, to a large extent, were responsible for induction of farmers' rights in the frames of plant variety protection.

When the PPV&FR bill was introduced in the Indian Parliament in December 1999 (Brahmi, Saxena & Dhillon 2004), the primary intention was to start parliamentary process before India, as a WTO signatory, would become fully TRIPS compliant by 1 January 2005. This draft was largely a plant breeder's rights legislation before it was referred to a Joint Parliamentary Committee (JPC). Notable in the negotiations process (which carried on for almost a decade, from 1993 onwards) was the absence of participation or representation by farmers.¹⁹ The initial version of the bill introduced in the Parliament contained only a short provision on farmers' rights. The Bija Satyagraha movement and the anti-corporation sentiment may have well been instrumental in shifting the terms of farmers' entitlements. The JPC added a whole new chapter on farmers' rights, putting a stamp of legislative authority on farmers' claims.²⁰ Thus came into being a unique provision that not only provided plant variety protection to breeders but also granted rights to farmers over their plant varieties. It was a tacit acknowledgement of the fact that farmers are as much hol-



ders of intellectual property as the modern biotechnologically assisted plant breeders are.

The Protection of Plant Variety and Farmers Rights Act

The PPV&FR Act begins by stating its twin purposes:

- (i) To establish an effective system of plant variety protection in order to encourage the development of new varieties of plants;
- (ii) To protect the rights of the farmers in respect of their contribution in conserving, improving and stewarding bio-genetic resources and making available plant genetic resources for the development of new plant varieties.²¹

The conjoining of the two rights—farmers’ and breeders’—was largely governed by two overlapping narratives. It was firstly based on normative considerations that often drive group and collective entitlements—a recognition that farmers’ customary ways of farming, managing and securing agricultural resources and biodiversity ought to be supported and rewarded because it is critical for protecting livelihoods and food security of the millions who are dependent on agriculture. The second strand of thinking was motivated by developmental concerns. A focus on ensuring access to technology and modernising and liberalising seed production would promote the overall development of the agricultural sector.

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Keeping both these objectives in mind, India institutionalised proprietary claims in plant varieties to protect the rights of innovators, but balanced it with farmers’ rights. Dual protection, it was argued, would be likely to facilitate the growth of seed industry, ensure the availability of high quality seeds and planting material to the farmers, as well as protect the farmer from the vagaries of the market. The law thus emerged from a process that attempted to incorporate the interests of various stakeholders: farmers, private sector breeders, public sector institutions, researchers, non-governmental organisations and inter-governmental organisations, thus creating a deeply imbricated, dense terrain of entitlements (the implications of which I discuss shortly).

Accommodating these twin purposes meant granting recognition of the proprietary claims of both the famers and breeders, more accurately, of farmers as breeders. The Act explicitly endorsed the status of the farmer as a breeder when it states in Section 2 (c): "breeder' means a person or group of persons or a farmer or group of farmers or



any institution which has bred, evolved or developed any variety [...].” The Act affirmed that farmers—who have selected plants of utility from wilderness, domesticated them by mastering their means of perpetuation, have further modified the traits making farm produce more storable and palatable, who have undertaken crop improvement activities (Nagaraj & Yadav 2008)—have a claim to be counted as breeders. The affirmation of farmers’ authorial status within the PPV&FR Act devolves into the following sets of entitlements for the farmers.

*Authorial Claims:*²²

- (i) Right to save, use, exchange, share and sell farm produce of a protected variety, except sale of branded variety.²³
- (ii) Right to register their varieties and to authorize and regulate the use of such varieties.²⁴
- (iii) Right to claims of benefit sharing if their registered varieties and land races have been used for deriving new varieties.²⁵

Privileges and Immunities:

- (i) Farmers are to be compensated for low or failed performance of propagating material if the performance is below what has been claimed by the breeder.²⁶
- (ii) In recognition of the role of traditional and rural communities in conserving and preserving genetic resources of land races and wild relatives of crops, farmers are entitled to recognition and reward for the contribution made by them in the evolution of a variety, from the National Gene Fund.²⁷
- (iii) Farmers are to be protected from penal action for acts of innocent infringement.

We see two kinds of endorsements here: First, proprietorial claims of farmers as authors of plant varieties; and second, collective, generational rights of the farming community. While authorial claims of the farmers are clearly located within the narrative of ownership and "claims", collective stewardship claims are articulated in the vocabulary of privileges and immunities. The authorial claims are what Hohfeld (1917) calls, "first order" rights, meaning rights that are primary claims of a farmer.

Privileges and immunities—protections, rewards, compensation, and assistance—are "second order" rights. These are important but they do not form the central or the enabling feature of a farmer’s proprietorial



claims. In "Time to Share Benefits", Kochupillai (2012) draws attention to how the Indian government-funded agricultural institutes and organisations, draw upon farmers' varieties but register the plant variety as a "new variety" rather than as a "derived variety" which would have obligated them to share benefits. In another instance, Monsanto had entered into a Memorandum of Understanding with the Andhra Pradesh State Government to pay for compensation in case of Bt cotton crop failure due to seed quality. It did not pay up despite successive crop failure between 2004 and 2006.²⁸

A further point that needs to be underscored is that rewards, compensation and benefits are in the form of an "objectively determined value" or a compensation for the destruction or encroachment of an initial entitlement (Calbresi & Melamed 1972). In other words these "protections" are in the form of liability rules that signify a scheme of allowable transfers by entities like courts, government agencies, policy makers etc. The price at which these transfers take place will always be contingent on exigencies that include the market but do not exclusively confine themselves to it. In quite a few cases, especially eminent domain acquisitions, the farmer and his valuations may be totally excluded.

A primary reason why strong proprietorial claims are indispensable for the farmers is because they entail strong duty correlates. A farmer's proprietary claim on her seeds entails a duty on a corporate breeder, for example, to 'not' freely access or pirate these seeds without consent or sharing of benefits. Legally, it gives the farmer a right to exclude other claims on her property. Further, it enables the farmer to attach a subjective value to her property and demand a price that she feels she deserves; anything less and the owner can decline the compensation offered. The owner, in other words, can exercise a transactional veto over what is her property. This is the exclusion stick of the bundle of a property right. And this is a much stronger articulation of rights than privileges of reward or liability claims of compensation (Chandra 2016: 99-102).

It is to the PPV&FR Act's credit that it takes the narrative of farmers' entitlements beyond the discriminatory, "liability" conceptions of benefits, privileges and compensation. The Act grants to farmers authorial status that gives them the right to commercialise their knowledge rather than simply stop others from commercialising it. The PPV&FR Act is a definite advance over the UPOV formulation of farmer's "privilege", and within it of the progressive delimitation of a farmer's



privilege to save and exchange seeds. By replacing vocabulary of "privilege" with "rights" PPV&FR makes an important political move, confirming the local practices and cultures of agriculture. And then by including, within the scope of farmers' rights, a farmer's right to save, exchange, re-sow and sell (under stipulated conditions), it affirms the plural economic spaces of commodity exchange too.

Thus, the farmer in India, unlike his counterparts in the US or Canada²⁹, retains his property right not just over the grain, but also over the seed as a factor of production. S/he can re-sow the protected variety of seed without being subjected to "technology agreements"³⁰ and s/he can even "brown bag"³¹ protected seeds and sell them. *Prima facie*, a farmer's conventional right over seeds appears secured by the Act. But a deeper investigation reveals another aspect of the property story.

Claiming Property

By and large, farmer's right is posited as a new type of right within, as Borowiak suggests, "the discourse on property" (2004: 528). It pretends to be cast in a different language; in as much it locates itself in diffuse communities' shared knowledge and traditional practices, the contributions of past generations and so on. But the overall strategy is located in the "equal respect principle" which grants a farmer rights over his varieties much in the same way as breeders get over their varieties. It is this ethical imperative of "equality" that disables the varied entitlements that accrue to the farmer under the PPV&FR Act.

While this form of right has created a strategic site for symbolic as well as material recognition for farmers, in practice rights in the IPR framework only acquire their material valence when generated at the nexus of property and technological innovation. In other words, property, in the absence of a technological genealogy, fails to become a sufficient condition for underwriting farmers' prospects of agency and empowerment. Further, perhaps an unintended consequence of the alignment of property with innovation protocols is also the disabling of more "conventional" property claims.

Promotion of ownership—the farmer's right to save, use and sell seeds—hides other discreet processes that encroach upon farmers' rights. For example, the right to sell applies typically to open-pollinated and inbred plant varieties—the kinds developed by farmers—the seeds of which can be replanted over and over again, saved and then either sold or exchanged. However, hybrid seeds, that are artificially



cross-pollinated, and bred to favour desirable characteristics, like higher yield, more uniform size etc., are programmed in such a way that seeds produced from hybrid plants lose their "hybrid vigour" due to the feature of segregation. Kochupillai states that hybrids have 100 percent seed replacement rate, meaning that in order to maintain the quality and quantity of produce, seeds have to be purchased afresh from the market every season (Kochupillai 2011: 93). As a result, new seeds must be purchased every planting season. Needless to add, these seeds are not the ones to which the "right to save, exchange and sell" applies.

According to estimates, the hybrid seed market has grown at a stupendous Compounded Annual Growth Rate of 36.1 percent over the period 2007-13. Almost correspondingly, the contribution of varietal seeds to the overall commercial seed market in India has witnessed a steep decline from 72 per cent to 36.8 percent in the fiscal year 2013 in the same period (Ken Research, 2013). In 2013 non-vegetable seeds accounted for 82.2 per cent of the overall seed market in India, cotton contributing the largest share of 40.8 per cent. Reflecting on the period between 2002 and 2011, Dravid (as cited in Mnajunatha et al. 2013: 4) states that the major growth drivers of seed industry in India are single cross maize hybrids, Bt cotton hybrids, hybrid pearl millet, hybrid rice and hybrid vegetables developed by the private sector. According to estimates, the share of research hybrids on total turnover of crops like sorghum, pearl millet, sunflower, maize cotton, shorghum-sudan grass, has risen dramatically.

According to the eleventh annual Indian Biotech Industry survey by Biospectrum-ABLE (Association of Biotechnology-Led Enterprises), the Indian biotech industry grew by 15.1 percent in 2012-13, increasing its revenues from Rs 204.4 billion to Rs 235.24 billion (approximately US dollar 3.94 billion as per the June 2013 exchange rate) (Differding Consulting 2013). Widely advertised and distributed, aggressively marketed over a short span of time, hybrid seeds are fast displacing their open pollinated counterparts for some crops. For example, despite repeated crop failure of the Bt crop in Vidarbha³², seed dealers admitted that there was hardly any non-Bt hybrid variety available in the market by 2007. One dealer said, "we get good margins on Bt from the companies. Also, the companies haven't marketed [other seed varieties] this time around."³³

The reasons for the agricultural biotechnology industry's hybrid-boom are quite obvious. First, they provide inherent trade secret type



protection against competitors because their parental lines are not required to be disclosed and difficult to identify by any process similar to reverse engineering in pharmaceuticals (Kochupillai 2011: 92). Secondly, hybrid seeds are "programmed" to not replicate true to their type and vigour. As a result, new seeds must be purchased every planting season, ensuring that technology weakens the seed rights of the farmers. High technology has a capacity to not only displace land races and farmers' seed varieties through projections of expertise, risk management, enhanced productivity, but also to supersede those property rights attached to traditional open pollinated seeds. The "coupling" of narratives of innovation with that of property renders conventional ownership norms benign and less significant than before, a point I further reiterate in the next section.

Claiming Innovation

In order to claim innovation benefits and intellectual property protection, a farmer is required to register her crop with the Plant Variety Authority. This ensures that the variety and its specificities and genealogy are recorded and authorial claims are established. However, what is interesting are the conditions mandated for registration. The PPV&FR Act grants plant variety protection for four plant varieties—'new varieties, farmers' varieties, extant varieties, and essentially derived varieties'. All four types can be registered reflecting the interests of various breeders and their authorial identity. The explicit inclusion of farmers' varieties is an endorsement of the proprietorial and authorial status of the farmer which, as we saw in the preceding section, had been established through his right to save, re-sow, exchange, and sell. However, at the same time it is clear that farmer rights are co-equal rights and their varieties do not receive the benefit of any differential treatment within the scope of the Act, ignoring differences in the socio-economic location of the farmer and the colossal variations in breeding practices and technologies mobilised.

Adopting UPOV style protection, the Act prescribes DUS standards—distinctiveness, uniformity and stability—for all varieties (including extant and farmers) in order to be eligible for registration and protection.³⁴ This is the first step where the protection of farmer's variety and, through it, the protection of farmers' rights, is likely to run into problems. Farmers' varieties are generally niche-specific and dispersed through an informal system of seed exchange. Through a process of repeated propagation, progeny assessment and advancement the



farmer's variety tends to be relatively homogenous (intra-specie) with unique identities (inter-species) and with a history of being governed by market driven selections. But the important question here is how demonstrable are these features under the norms prescribed by the Act? The level of distinctiveness, between one farmer variety and another, required for registration of the variety, may not be either demonstrable or identifiable.

When a farmer selects seeds over generation, s/he is driven by considerations other than those that govern proprietorial and innovation claims. DUS has never been a driving factor for farmers who have instead based their selection on yield, stability, risk avoidance, low dependence on external inputs and attributes related to storage, cooking and taste (Green Foundation, 2003). In addition to environmental and biological factors, Saxena and Singh (2006) argue that social, cultural and economic reasons contribute in precise selection of variability and its propagation. They state that "[m]ost cultivars have been selected and cultivated because they meet human requirements and please the farmer." (2006: 1451)

Nagarajan et. al. (2008: 211) bring to attention yet another reason why farmers' variety may not exhibit DUS standards. They argue that farmers wilfully retain a certain degree of heterogeneity to cushion against environmental aberrations and sustain consumer preferences. So a farmer's criterion is stability of performance between varying years. Contrast this with plant breeders who conduct mass selection to breed varieties to excel in performance, bypassing the trials and selections that a farmer does over years before s/he achieves a respectable yield, fit to be distributed horizontally over a niche geographical and agronomic location. This means that it is entirely possible that the special features that plant varieties have are matters of observable preference, and that farmers may not have varieties with spectacular morphological variations (Nagarajan et al. 2008; Saxena & Singh 2006; Kochupillai 2011).

While commercial breeders may be successful in getting their varieties protected under the Act, farmers may not be able to do so because of the built-in antiquity and their inability to meet the criteria of distinctness, uniformity and stability, borrowed uncritically from the UPOV Convention for the registration of breeders' varieties. Srinivasan (2003) argues that IPR-based farmers' rights approaches are unlikely to provide significant economic returns to farmers or farming communities.



Establishing the distinctiveness of farmers' variety can be a challenging enterprise for a farmer given his financial capacities and his socio-economic capabilities. It is interesting to note that even though farmers' varieties have recorded the highest number of applications (largely due to a spurt between March 2012-March 2014), they register the lowest rate of conversions in the number of certificates granted. Before it jumped to 7.55 percent in March 2014, till September 2012, the percentage share of total certificates of registrations granted was only 1.23 percent (Manjunatha et al. 2013: 2). More revealing is the fact that almost all farmers' variety registrations have been for rice (and, two for wheat), which is a self-pollinating crop and has a low seed replacement rate. In contrast, new varieties registered have been for hybrid varieties of maize, sorghum, pearl millet and most for tetraploid cotton, which have a negligible seed replacement rate and which therefore compels a farmer to source these seeds from the market. 88 percent of the new varieties have been registered by private sector companies that include transnational corporations like Monsanto, Bayer, Syngenta and Pioneer.³⁵

It is clear that the PPV&FR Act adopts the DUS criterion but does not find it necessary to scientifically validate levels of non-uniformity tolerated and preferred by both farmers and consumers. The standards of innovation, and legal claims of property that relate to innovation co-produce a space that simultaneously sustains two kinds of narratives: one, of biotechnology as scientific and universally and legally appropriate; and two, of traditional knowledge (embedded in farmers' varieties and rights) as a legal claim, if scientifically appropriate. This is the tautological, almost perverse irony of entitling poor marginalised farmers.

In reflecting on the content of farmers' rights within the larger assemblage of IPR, I have so far tried to demonstrate how the innovation discourse supports only particular property claims and how it renders others, like farmers' claims over their varieties, notional (Nagarajan et al. 2008). In the next section I examine issues of access to rights. While rights are instruments that provide access to resources and liberties, access to rights is a matter that is relatively under-reflected. What kind of access law provides is an important question, but an equally important question is, what kind of access there is to law in general? I want to shift the focus from the content of rights to questions of access and argue that a focus on the capacious content of the FRs only serves to divert attention away from how access to the content is disabled at various levels in the practical play of this right.



Claiming Rights

As mentioned earlier, the PPV&FR Act allows for registration of four varieties—new, farmers', extant and essentially derived varieties. These four varieties and the rights corresponding to them have multiple stakeholders: breeders, farmers, community, public sector or NGOs. Often, there can be multiple claimants for one variety. Breeding of a crop variety would typically require use of another protected variety and could, therefore, entail considerable bargaining and negotiations for commercialisation. It could pose problems of overlapping claims and result in complicated bargaining requirements for utilisation of varieties, and/or with weak correlatives of duties and obligations.³⁶

In a study conducted on farmers and the impact of the PPV&FR Act, Anitha Ramanna points out that the farmers who were interviewed said that they were not aware of "farmers' rights" (Ramanna 2006: 27). Several respondents in her study pointed out the legal and practical difficulties, experienced by farmers in fulfilling the DUS criteria for registering varieties under India's PPV&FR Act (ibid.: 37). Even the benefit-sharing entitlements presume a legal capacity on part of the farmer. First, a farmer has to be aware that an application for a plant breeders' right has been made. S/he has no means of obtaining this information except by obtaining access to the gazette where the publication has been made. The farmer then needs to have an adequate measure of literacy and legal literacy to understand the meaning of the publication in order to make a benefit sharing application.

Annual reports of the Plant Variety Authority, published in the Plant Variety Journal reveal that even though claims for benefit-sharing are invited routinely—by publishing details of varieties for which registration certificates have been issued in the Plant Variety Journal (49 CoR in 2010; 117 in 2011; 212 in 2012; 304 in 2013; 833 in 2014; 266 in 2015 till 1 Dec. 2015)³⁷—there have been no claims for sharing benefits by the farmers. First, his/her location impedes such claims; second, parental lines of new hybrid varieties are difficult to identify, making the very idea of benefit-sharing notional (Nagarajan et al. 2008).

There is a requirement, as Steiner proposes, "that the various correlative duties entailed by any such set of rights must all be jointly performable [or jointly redressable in case duties have been breached] and none can be mutually obstructive" (2009: 1–2). This implies that the duties must entail a set of obligations, or forbearance, that translate into mutually differentiable claims. If rights lack requisite mutual



differentiability, then the correlative duties may not be controllable by (any or all) rights' bearers i.e. holders of rights may not be vested with the powers to waive and, alternatively, demand/enforce compliance with that claim's correlative duty.³⁸ Such rights then do not standardly conform to a genre of property rights.

Farmers' rights in India, by libertarian standards, can be said to fall in the category of a "non-property property right." They may display the rhetoric and semantic facade of property rights, but they belie their poorer bearers through a content that is cunning and "overlapping" with breeders' claims. The standard analytical approach of evaluating a right in terms of its content, then evaluating it as "weak" or "strong" will need to be abandoned here. "Content" is a necessary condition for rights' realisation, but, as this Indian case demonstrates, not its sufficient condition. Content wise these rights are "strong", with all the sticks of the property bundle—save, sell, exchange, sell—but the "cunning" lies in rendering these as insufficient for organising the material stakes of the farmers.

Farmers' rights in India point to a distinct way of thinking about the content of law. A focus on the content of rights needs to be supplemented with an attention to the conditions under which lawful relations are organised, rights-claims accrue, get denied, thrive, or wither. In other words, attention to the content of rights forms only one part of the rights story: access to rights forms the other, equally important aspect of rights protocols. While the access that rights provide is an important question, the access to the right itself is a question that deserves more attention. Benefiting from rights depends not only on the availability of legal rights that are enforceable, but also on the ability of traditional communities to use law as a recourse and resource (Dutfield 2006). Incapacity to bear costs, inability to understand the terms of legality and technology, in short, failure to inhabit a cognitive system that is alien, makes a farmer's claim to his co-equal right deeply constrained. Chandrashekar and Vasudev (2002) raise an important question: Do all farmers or breeders deserve equal protection? They argue that protection under the PPV&FR Act is deemed to be proportional to the contribution a farmer makes in conservation of land races and developing "farmers' varieties" and that such a strategy is bound to be dysfunctional because it ignores the fact of the Indian peasantry who are "numerically enormous, less literate and less resourceful than other sections of society" (Chandrashekar & Vasudev 2002: 513).



Concluding Remarks

There can be two readings of the PPV&FR Act. The first reading focuses on the conceptual strides made by the PPV&FR Act that culled out a semantic and material space inside of which farmers can potentially assert their claims. This reading regards the legislation as important for a variety of reasons. Firstly, "the importance of *sui generis* legislation pushes the idea of intellectual property beyond the idea of patents and breeders' rights and beyond the specific commitments that countries take under TRIPS agreement" (Cullet 2005: 245–6, emphasis in original?). It affirms the legal veracity of knowledge and farming systems that have come to acquire a "prio-art" and "folk" status. It legalises the authorial status of farmers as breeders (Rangnekar 2013) by regarding a breeder as "any person or group of persons or a farmer or group of farmers or any institution which has bred, evolved or developed any variety [...]" (PPV&FRA, Section 41 (1)).

By including farmers within the conceptual category of the "breeder", the legislation shifts the framings of farmers' contributions beyond the stewardship and conservation narrative (Sahai 1994; Shiva 1996), thereby bridging the conceptual and the entitlement gap between the breeder and the farmer. By making farmers, and their production of knowledge, subjects and objects of protection, the legislation provides a counter to the idea of innovation being location—and episteme—specific. The legal and authorial affirmation of farmers' rights becomes an important corrective to international law regimes that exclude them from formal and informal routines of plant variety protection law.

The second reading—to which I have attempted to draw attention to—sees this Act as combining three discursive modalities—that of stewardship (right to rewards and benefit sharing), ownership (right to save, sell, re-use, exchange) and innovation (right to register seeds that meet the DUS standards). How can we read this capacious, if complicated, articulation of an ethico-political gesture which is simultaneously wrapped in the vocabulary of stewardship, culture, history, and of property, innovation, efficiency? Is there a "double movement" here whereby, drawing from Lefort (1988: 11), the content and intent of these rights simultaneously appear and are obscured? What "appears", or is made apparent through the formal language of the law, are farmers' rights that appear to incorporate generational, ownership and innovation claims. But what is obscured is the locus of politics, the locus in which parties compete and in which certain kinds of agency are reproduced and certain kinds subverted, as well as the



general principles, or the "serving criterion" that govern the overall configuration.

The key to understanding the locus of politics, to draw from the analytical frame developed by Goodman, Sorj and Wilkinson (1987), lies in the twin processes of "appropriationism" and "substitutionism". While appropriationism seeks to advance capital accumulation through a replacement of all aspects of agricultural production, substitutionism seeks to replace agricultural end products, reducing them to industrial inputs for manufactured products. Substitutionism seeks to "interpose mechanised industrial processing and manufacture between the source of field production and final consumption" (Goodman et al. 1987: 60). The former signals the coalescing of pre-existing biophysical processes of production with new processes derived from industrial, scientific and business domains, substituting old (agricultural) products with new (industrial) products. Together they result in a discontinuous but persistent undermining of indigenous elements of the agricultural production process and end products, reducing both the process and the products into commoditised inputs for manufactured products (*ibid.*: 2). It entails, to borrow a pithy phrase from Kloppenburg, the "production of commodities by commodities" (1988: 2-3).

Biotechnological industries alter the chain linking farm product and final consumption, transforming the anatomy of agricultural productivity, almost bringing to an end, as Goodman et al. state, "the prehistory of food industry and farming" (1987: 189). Through an incorporation of agriculture within the broader dynamics of the industrial system, the analytical separation between agriculture and industry (that had initially prevented a complete subsumption of agriculture under capitalism) is broken down, making them two contiguous, constitutive domains (*ibid.*: 183-9).

While the physical aspects of biotechnologies raise issues of appropriationism and substitutionism, the proprietary aspects of biotechnology are multifaceted and complex. Full commodification of the seed/plant variety requires that seed be first appropriated technologically, through genetic engineering and modification, and then substituted by their genetically engineered counterparts, transfiguring as a result, not just the epistemic spaces of farmers' seed know-how, but also transforming their ontological life-world.

To the twin categories proposed by Goodman et. al., Pechlaner adds a third—"expropriationism" to suggest that a network of legal rights and obligations accompany technologies of production, and that legal



and technological means together often subsume traditional forms of wealth generation and ownership strategies in spaces of every such encounter (Pechlaner 2014: 25-7). Technological interventions, together with legal paraphernalia of multiple, imbricated property rights reconstitute the realm of ownership, where in the absence of techno-scientific innovation, "old" forms of ownership are rendered ineffective as protective or remunerative mechanisms.

The *sui generis* claims of farming communities seek to incorporate and institutionalise what are increasingly seen as cultural claims. The global shift towards human rights rhetoric in the post decolonisation era has meant that some conception of farmers' rights, indigenous entitlements, have come to be incorporated in legal frames, albeit with varying ambitions and jurisdictions. However, the positivisation and globalisation of these rights has also meant that these rights do not find an easy fit in the text of the law. Assigning communities rights, assigning distinct farming cultures jurisdiction, imposes a contrarian burden on the IPR assemblage. It has meant that the legalised expressions of indigenous farming entitlements will only entail a set of obligations that do not really destabilise the economic interests of IPR holders. It is here that we encounter the conceptual as well as political limits of farmers' rights.

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Farmers' rights, as a species of legal pluralism, speaks in the name of indigeneity and culture, but its primary allegiance remains the interests of the innovators, admitting a built-in dysfunction that does not take into account the future trajectory of rights' activity, competition, and conflicts. Elizabeth Povinelli (2002: 12) calls the malleability and acquiescence of cultural rights as the "invisible asterisk" of the human rights-to-culture approach. She writes, "an invisible asterisk, a proviso, hovers above every enunciation of indigenous customary law: '(provided [they] are not so repugnant)'" (2002: 176). Legal pluralism, in the form of farmers' rights, is admitted as a compromise between two competing value systems of diverse biocultures, and as minimum standards of toleration required to direct traffic in new biotic resources and identities that are forged in relation to law.

Endnotes

¹ A version of this paper was published as a chapter titled "Rights" in my book 2016. *The cunning of rights: law, life, biocultures*. Delhi: OUP.



² In 1961, an international accord, the UPOV Convention, established a form of intellectual property protection on plant varieties, known as Plant Breeders' Rights. For the first time, this allowed plant breeders to collect a royalty on the production and/or sale of certified seed of protected varieties, similar to the intellectual property protection offered via copyright on books and CDs. This system provides plant breeders with an incentive to develop successful varieties, and also stimulates further research and innovation by ensuring that all protected varieties are freely available for use in future breeding programmes.

³ The Agreement on TRIPS is an international agreement administered by the World Trade Organisation (WTO) that sets down minimum standards for many forms of intellectual property (IP) regulation as applied to nationals of other WTO Members. TRIPS, also adopts a plant variety protection system that is based on the UPOV Convention. Article 27.3 (b) of TRIPS calls for members of WTO to protect plant varieties in the patent system or by an effective *sui generis* system for the protection of plant varieties or by a combination of such systems. The UPOV Convention provides the only internationally recognised *sui generis* system for the protection of plant varieties.

⁴ See, for e.g., GRAIN. 1999. Plant variety protection to feed Africa?, 16.4 *Seedling 2*.

⁵ La Via Campesina's understanding of farmers' rights, advanced by its 1996 intervention to the FAO Commission on Genetic Resources for Food and Agriculture is as follows: "Right over plant genetic resources, right to self-determination by controlling and deciding the future of genetic resources, right to ensure food security by having access to resources such as land and water, the right to develop models of sustainable agriculture, right to conserve biodiversity, right to participate in execution of programmes concerning genetic resources and finally, the right to use, choose, store and freely exchange genetic resources." 1996 Intervention to the FAO/CGRFA by Via Campesina, http://www.ukabc.org/Via_Camp.html [retrieved 02.10.2016].

⁶ GRAIN is an international non-profit organisation that works to support small farmers and social movements in their struggles for community-controlled and biodiversity-based food systems. <http://www.grain.org/pages/organisation> [retrieved on 02.03.2016].

⁷ The core objective of ITPGRFA is the conservation and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising out of their use. In particular, ITPGRFA requires protection of farmers' rights to traditional knowledge and to equitable benefits from the use of genetic resources. It also recognizes the enormous contribution that indigenous communities, local communities, and farmers have made to the conservation and development of crop genetic resources. <http://www.fao.org/plant-treaty/en/> [retrieved 24.10.2014].

⁸ Farmers' rights: resource page for practitioners and decision makers. <http://www.farmersrights.org/internationally/index.html> [retrieved 04.10.2016].

⁹ Agenda 21 is a non-binding, voluntarily implemented action plan of the United Nations with regard to sustainable development. It is a product of the UNCED held in Rio de Janeiro, Brazil, in 1992.

¹⁰ See further the Preamble to the CBD, <https://www.cbd.int/convention/articles/default.shtml?a=cbd-00> [retrieved 04.10.16].

¹¹ An outcome of the UNEP expert group on biological diversity, the CBD's main aim has been the promotion of sustainable agriculture and the maintenance of biological diversity. <https://www.cbd.int/intro/default.shtml> [retrieved 11.11.2016].

¹² Rangnekar, D. 2014. The cunning state of farmers' rights in India: aligning with global law or emancipating farmers? *Conference Paper for Discussion, Food Sovereignty: A Critical Dialogue*, p. 4,



<http://www.yale.edu/agrarianstudies/foodsovereignty/> [retrieved 02.08.14].

¹³ The UPOV was first adopted in 1960, and subsequently revised in 1972, 1978 and 1991. The objective of the Convention is the protection of new varieties of plants by an intellectual property right called 'breeders' rights'. It is an instrument that privileges and protects innovation claims of the breeders and reduces farmers' generational claims as 'privileges'. Each successive amendment has curtailed 'farmer's privilege' to reuse propagating material from the previous year's harvest and to freely exchange seeds. A *sui generis* conceptualisation, in contrast, has stronger articulations of farmers' rights and aims to protect the generational claims of farmers even as it develops a system of plant variety protection.

¹⁴ See UPOV, publication no. 437 (EN)—India is included among the States and intergovernmental organisations which have initiated the procedure for joining UPOV, <http://www.upov.int/export/sites/upov/about/en/pdf/pub437.pdf> [retrieved 04.10.16].

¹⁵ Navdanya. n.d. *Bija Satyagraha*, <http://navdanya.org/campaigns/bija-satyagriha> [retrieved 02.08.16].

¹⁶ See interview of KRRS members in Ashlesha Khadse & Niloshree Bhattacharya. 2013. *India: a conversation with farmers of the KRRS*. La Via Campesina's Open Book. <https://viacampesina.org/downloads/pdf/openbooks/EN-05.pdf> [retrieved 08.11.16].

¹⁷ Shiva, Vandana. 1999. Monsanto quit India. <http://caravan.squat.net/ICC-en/Krrs-en/Monquitin-en.htm> [retrieved 02.08.16].

¹⁸ M.D. Najundaswami. 1998. *Cremating Monsanto: genetically modified fields on fire*. <http://artactivism.members.gn.apc.org/allpdfs/152-Cremating%20Monsanto.pdf> [retrieved, 07.11.16].

¹⁹ Interesting facet of mutation of citizenship is that farmers were not represented at this forum despite their citizen status and Monsanto was invited by the JPC to make an oral submission during its public consultations on the Bill in 2000. It was the only individual company which did so Government of India, Joint Parliamentary Committee. 2000.

²⁰ Lok Sabha Secretariat. 2000. Joint committee on the protection of plant varieties and farmer's rights bill, 1999. *Report of the Joint Committee presented in the Lok Sabha on 25 August, 2000*, http://openlibrary.org/books/OL3975683M/Joint_Committee_on_the_Protection_of_Plant_Varieties_and_Farmers'_Rights_Bill_1999 [retrieved 02.08.14].

For a discussion see Klemm, Susette Biber & Thomas Cottier et. al. 2006. The current law of plant genetic resources and traditional knowledge. In: Susette Biber Klemm & Thomas Cottier, eds. *Rights to plant genetic Resources and traditional knowledge*. Cabi Publishing, pp. 90-3.

²¹ Preamble to the PPV&FR Act, 2001.

²² Concepts like claims, privileges and immunities are being used in the Hohfeldian sense to mean the following: Claims are those that devolve into duty correlative. A has a claim that B \emptyset only if B has a duty to \emptyset ; Privileges are rights in the absence of a duty correlative i.e. A has a privilege to \emptyset , if A has no duty not to \emptyset ; A has an immunity when B lacks the power to alter the claims and rights of A. See Hohfeld, Wesley. 1917. Fundamental legal conceptions as applied in legal reasoning. *Yale Law Journal*, 23 (16), pp. 710-70. http://digitalcommons.law.yale.edu/fss_papers/4378 [Retrieved 15. 06.15].

²³ The PPV&FR Act, Section 39 (1) (iv).

²⁴ Section 2 (c).

²⁵ Ibid., Section 2 (b); Section 39 (1) (ii).

²⁶ Ibid., Section 39 (2); Section 41 (3).

²⁷ Ibid, Section 2 (k) (l); Section 39 (1) (iii).



²⁸ See, GM Watch. n.d. Monsanto-Mahyco pursued over farmer compensation, <http://www.gmwatch.org/latest-listing/45-2006/67-monsanto-mahyco-pursued-over-farmer-compensation> [retrieved 02.08.14].

In another example, the Sindewahi Rice Station (a part of Dr. Punjabrao Deshmukh Krishi Vidyapith University, Maharashtra (herein after, the University) took five kilos of the HMT seeds from a farmer, Khobragade, to conduct "experiments" on it. Four years later, the University released a new variety named PKV HMT, a "pure" and improved form of the HMT variety, registered it as a "New Variety" and did not pay any benefits to Khobragade. For details see, Kochupillai, M. 2012. HMT: time to share benefits with our farmers', guest post. *SpicyIP*. <http://spicyip.com/2012/11/guest-posthmt-> [retrieved 16.01.2014].

²⁹ See for example the well-known cases of *Percy Schmeiser v. Monsanto Canada Inc. and Monsanto Company*, [2004] 1 SCR 902: 2004 SCC 34; or *Monsanto Co. v. HomanMcFarling, Nos, 03-1177, 03-1228*. 9 April 2004; or of *Vernon Hugh Bowman v. Monsanto Company, Appeal from the United States District Court for the Southern District of Indiana in 657 F.3d 1341* (Fed. Cir. 2011). In all three cases, these individual farmers were sued by Monsanto for saving and re-using patented seeds in their own fields.

³⁰ Monsanto distributes the patented seeds by authorizing various companies to produce the seeds and sell them to farmers. It required those seed companies to obtain a signed Technology Agreement from purchasers. For details see Chandra 2010: 256-9.

³¹ Most plant varieties today are protected by various legislations on PVP. This means that a particular variety may only be sold as a class of certified seed. Seeds of the same variety, which are not certified, are called brown bag seeds and the process is called brown bagging, which is legal in some countries like India and is illegal in some countries like the US.

³² See, Coalition for GM-Free India. n.d. *10 years of Bt Cotton: false hype and failed promises cotton farmers' crisis continues with crop failure and suicides*, www.biosafety-info.net/file_dir/551137394f82a8adac3ad.pdf [Retrieved 02.08.2014]. Bt (*bacillus thuringiensis*) is a naturally occurring plant bacterium that is inserted into the genetic composition of cotton to make it resistant to bollworm infestation, considered to be one of the major destroyers of cotton crop.

³³ Hardikar, Jaideep. 2007. Bt-ing the farmers. *India Together*. 2 July, 2007. Available at <http://www.indiatogether.org/2007/jul/agr-Btvidarb.htm>. [retrieved 22.07.15]. Also see P. Sainath. Farm suicides in India, the result of profit driven "Free Market" reforms. *The Hindu. Global Research*, 7. Apr. 2007.

³⁴ For UPOV guidance on DUD standards see Union for Protection of Plant Varieties, 2011. *DUS Guidance.*, http://www.upov.int/resource/en/dus_guidance.html [retrieved 12.11.2016].

³⁵ One of the problems with agricultural biotechnology, writes Chandrashekar, is that it's methods and products are increasingly being patented and licensed to the private sector. Patent rights, breeders' rights in each incremental improvement in a crop means "successive layers of IPR 'accumulate' such that the germ is 'highly IP encumbered'." Chandrasekar, B. et al. 2010. A textbook of agronomy. *New Age International Publishers*, p. 513.

³⁶ See for instance Mrinalini Kochupillai's detailed investigation of the numerous issues that confront the protection of parental lines of extant hybrids in India and the manner in which they played out in the Order of the Registrar of Plant Varieties dated 25 May, 2012 in the matter of Maharashtra Hybrid Seed Co. and Ors. (*The Parental Lines Case*). The key issue was whether Parental Lines of Extant Hybrid Plant Varieties should be protected under the category of *Extant or New Varieties* under the *Indian Protection of Plant Varieties & Farmers' Rights Act, 2001* (PPV&FR Act). Reddy, Prashant. 2012. *Protecting Parental Lines of Extant Hybrids in India*, *SpicyIP*. <http://spicyip.com/2012/09/guest-post-part-i-protecting-parental.html> [25.08.-2014].



For further details of the case, see Prasar, Vigyan. n.d. *Diffusing prosperity despite remaining poor: case of HMT Plant Variety*, http://www.vigyanprasar.gov.in/Radiosericals/Radio_Serial_Grass_Root_Innovations/Episode_7_1.pdf [retrieved 28.08.14].

See also Khobragade, Dadaji. n.d. *The creator of HMT Rice: a school dropout beats trained agriculturists*, www.ftfoundation.com/English/pdf/DadajiKhobragade.pdf [retrieved 02.09.2015].

³⁷ Compiled from Annual Reports of Plant Variety journal of corresponding years. No published data for 2010-2013, for years preceding 2010 see, Chandra 2016: 173.

³⁸ This is a necessary and sufficient condition of a Hohfeldian claim right.

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