

RESEARCH ARTICLE

A CRITICAL EXAMINATION OF BREEDERS' MONOPOLY RIGHTS TO THE DETRIMENT OF FARMERS UNDER THE ETHIOPIAN PLANT BREEDERS' RIGHTS LAW

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ABSTRACT

Agricultural innovations have for long remained outside the domain of Intellectual property rights (IPRs) due to ethical and socioeconomic grounds. With the advent of modern agro- biotechnology, however, the sector is subjected to IPRs. Particularly, the TRIPS Agreement provides that plant varieties (PVP) shall be protected either through patent or an effective *soi generic* system, or a combination thereof. In this regard, Ethiopia adopted plant breeders' rights (PBRs') law in 2006. This article aims at evaluating the monopoly rights of private breeders in comparison with farmers' rights on the basis of various ethical and socioeconomic factors. Accordingly, the second section overviews the introduction of IPRs in the agricultural sector. Section three deals with PVP under the TRIPS Agreement and the flexibility thereunder. After briefly introducing the Ethiopian PBRs' law in section four, the pros and cons of PVP is addressed under section five. Section six evaluates farmers' rights under the Ethiopian PBRs' law. The last section concludes the article.

Keywords: *Monopoly Rights; Ethiopian Plant Breeders Rights Law; Policy*

INTRODUCTION

The agricultural sector had for long been exempted from the purview of monopoly rights such as patents (Cullet, 2001). Agro-biotechnology raises ethical issues revolving around the interference with the role of God, respect for sacredness of nature, ownership of life forms, and the nexus between agriculture and human origin (Robinson, 1999). Patenting or the exclusive appropriation of life forms also contravenes human right to life, not least because the existence of humankind is founded on life forms (African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources (2000), OAU, Algeria, Preamble, Par. 9, & Art. 9(1)).

Intellectual property rights (IPRs) steadily made its way to agriculture with the introduction of plant breeders' rights (PBRs') modelled on patent and the patenting of life forms in many developed countries (Cullet, 2003). IPRs in the form of *sui generis* system were for the first time extended to the agro-biological field under the 1930 US Plant Patent Act. A *sui generis* system (its own kind of protection) was designed because it was problematic to accord patent for plant varieties (PVP). It is difficult to show novelty, inventive step, and produce written description of the invention in standard breeding activities (Blakeney, 2007; Tripp et.al., 2007).

Protection was, however, given for breeders after analogizing biotechnological inventions with mechanical inventions which, in effect, blurred the demarcation between organisms and manufacture (Pottage & Sherman, 2007). Though plants are products of nature, breeders were awarded for their artificial selection and reproduction of what exists in nature by reshuffling the concept of origination into discovery. The fact that "*mechanical inventors are inventors at the beginning, and breeders are inventors after the fact*" means that invention became an inductive rather than originating act (Pottage & Sherman, pp. 554-555, 558-559, 561-565). Furthermore, the requirement of written specification of was loosened owing to the incapability to reproduce plant innovations in writing unlike manufactures.

PLANT VARIETY PROTECTION (PVP) UNDER THE TRIPS AGREEMENT AND THE SUI GENERIS OPTION

Presently, agro-biological innovations are one of the subjects of IPRs at international level as per the TRIPS Agreement. Industrial associations of the west were behind the inclusion of agricultural innovations under the international regulatory regime (Blakeney, 2007). TRIPS Agreement provides that members may exclude from patenting plants and animals other than micro-

organisms, and essentially biological processes. They shall, however, give protection for plant varieties either by patent or *sui generis* system or a combination thereof ([Agreement on Trade-Related Aspects of Intellectual Property Rights \(TRIPS\), 1994](#)).

The *sui generis* option, arguably, gives sufficient flexibility for developing countries to adopt their own PVP laws in tune with their national interests rather than adopting monopoly rights like patent ([Blakeney, 2007](#); [Cullet, 2001](#); [Singh, 2007](#)). TRIPS Agreement does not define what constitutes plant variety for the purpose of protection. Nor does it require the adoption of PVP laws parallel with the stronger Agreements for the Protection of New Varieties of Plants (UOPV). Notwithstanding the claim that the set *generic* option under the TRIPS Agreement implicitly requires the adoption of UPOV ([Juma, 1999](#)), there is no binding obligation, in this regard, since none of the UPOV Conventions is referred to under TRIPS Agreement ([Leskien & Flitner, 1997](#); [Cullet, 2001](#)).

Nonetheless, a *sui generis* system, to be effective, should encompass the following requirements though the TRIPS Agreement does not define what constitutes an effective system. It has to accord protection to all kinds of plant varieties in the form of IPRs, i.e exclusive rights and/or remuneration regarding the exploitation of protected varieties. The provision dealing with *sui generis* system falls under one of the sections of TRIPS Agreement which is the subject of article 1(2) requiring the application of IPRs. This protection should be accorded to all plant species and genera ([Blakeney, 2007](#); [Leskien & Flitner, 1997](#)). A *sui generis* system should also provide for an effective enforcement mechanism, and comply with the principles of national treatment, and most-favored-nation treatment ([Leskien & Flitner, 1997](#)). True that there are countries which adopt their *own sui generis* system ([Thorpe, 2002](#)), a number of developing countries, however, practically take the UPOV as a model for a *sui generis* system owing to the pressure from the developed countries ([Cullet, 2001](#)). For these reasons, therefore, it does not seem that national governments have sufficient flexibility to design their own *sui generis* system in my view.

PLANT BREEDERS' RIGHTS (PBRs') IN ETHIOPIA

In 2006, Ethiopia adopted plant breeders' rights (PBRs') proclamation which was derived from the OAU model law. The *sui generis system* under the OAU model law is, in turn, based on the UPOV, especially the one adopted in 1991 ([Blakeney, 2007](#)). For instance, breeders rights and the duration thereof under the model law is parallel to the UPOV ([Cullet, 2001](#)).

The objective of the Ethiopian PBRs' proclamation is to incentivize investment in new plant varieties with the view to improving agricultural development. Plant varieties are worth protection if they are new, distinct, stable, and homogenous ([Plant Breeders' Rights Proclamation \(2006\), Proclamation No. 481/2006, Federal Negarit Gazette, No. 12, Addis Ababa,](#)

[Ethiopia](#)). Plant breeders have an exclusive right to sell, license and produce the seed or propagating material of protected varieties, generally, for 20-25 years. Unauthorized use of a protected variety constitutes an infringement and entails penalty. The proclamation provides for exemption and restriction of PBRs' upon limited grounds. It also aims at ensuring farmers to keep on using their customary seed use and exchange practices in view of their contribution to preserving agro-biodiversity. Farmers are entitled to save, use, exchange and sell farm-saved seed or propagating material of both farmers' varieties and protected varieties.²⁹ Farmers can use protected varieties only for noncommercial purposes, or they should be certified.

As a matter of principle, PBRs' is not different from the conventional monopoly rights such as patent.^{3'} The issue, then, is what is the benefit and cost of such kind of law in general and interplay between breeders and farmers rights in particular.

THE PROS AND CONS OF PLANT VARIETY PROTECTION

IPRs offer a strong incentive to attract private investment in agro-biotechnological improvements. It motivates breeders to invest in new and improved plant varieties by assuring that they will recover the cost of their innovation ([Hamilton, 2001](#); [Lesser, 1997](#); [Singh, 2007](#)). This leads to the release of new, high yielding, and disease resistant plant varieties that eventually contributes to agricultural development ([Chaturvedi, 2002](#)). The TRIPS Agreement provides, in this regard, that the underlying public policy objectives of national systems for the protection of intellectual property includes developmental and technological objectives.

There is no conclusive evidence about the role of IPRs in encouraging private engagement in plant breeding. Historically, private breeding industries flourished in the absence of PVP both in the North and South ([TRIPs, 1994](#)). Though granting temporary monopoly rights for inventors is said to enhance socioeconomic development ([Rangnekar, 2001](#)), they do not, however, fit with the conventional agricultural management practices because the latter depends on and promotes different knowledge, and identifies and rewards innovations in a different way than the former. Traditional agricultural management practices do not exclusively rely on financial schemes as opposed to monopoly rights.

Contrary to laboratory generated knowledge, farmers' knowledge is less-individualistic in that it involves the contributions of different individuals thereto. Granting monopoly rights to a single inventor not only undermines the contributions of other individuals but also impedes the free accessibility of inventions. The agricultural system of developing countries, particularly sub-Saharan Africa, significantly relies on farmers' varieties and free exchange of germplasm. Conversely, the use of commercial varieties is very limited. In

Ethiopia, for instance, farmers' varieties account for 94% of germplasm (Feyissa, 2006).

It is also inappropriate to commercialize the agricultural sector because of its key significance for the economy of developing countries. Unlike Europe, agriculture is a key sector in Africa, particularly in Sub-Sahara, that constitutes the livelihood of the majority of the population and substantially contributes to GDP.⁴ Agriculture is the backbone of Ethiopian economy since it holds 50% of the GDP and 85% of the total employment in the country (Cullet, 2003; Cullet, 2001).

It is held that IPRs' enables to strengthen the inventive capacity of local industries of developing countries (Ramanna, 2002). But the introduction of PBRs' in developing countries without strong local seed industry results in the domination of the seed trade by developed countries' transnational seed companies. In this context, it is the giant transnational corporations that would be the most profitable over local industries (Godden, 1984). PBRs' are unlikely to contribute for the enhancement of local research capacity. For instance, foreign industries held 91% of the application for PBRs' in Kenya between 1997 and 1999 (GRAIN, 1999).

It is argued that the promotion of Agro-biotechnology helps to realize food security (Borlaug, 1997). Privatization of the agricultural sector, however, raises serious concern about the degree to which private companies focus on southern food priorities and the affordability of their research outputs (Alston, et.al., 1998; Blakeney, 2007). Research by public institutions that concentrate on staple food plants plays a key role in realizing national goals such as food security in developing countries (Feyissa, 2006). Ethiopia relies on state-funded public institutions for plant variety development (Ragavan, 2005). Conversely, private breeders focus on consumer foods to maximize their profits (Cullet, 2001; Godden, 1984; Blakeney, 2007). Owing to the difference in the motives of commercial and public agricultural institutions of developing countries, the proprietisation of technologies and germplasm by private industries threatens public policy to realize national goals. For instance, the introduction of plant variety protection in Kenya and Zimbabwe did not bring investment in new food plants. Economic policies and agreements [TRIPS] should not be implemented in a manner detrimental to the realization of human rights, which includes the right to food.

Monopoly rights also tend to commercialize agricultural inputs which, in effect, raise seed prices and renders farmers dependent on private seeds and agro-chemicals. The fact that the yield from saved seeds tend to drop in subsequent years causes farmers to yearly buy new seeds though they are not technically compelled so to do. It is doubtful whether modern biotechnology can bring food security in developing countries, especially, given the reluctance of commercial seed industries to focus on the priorities of developing countries. Food insecurity in developing countries is associated with meager attention

given to staple food production. It is worth mentioning, at this juncture, the impact of the Green Revolution as experienced in Asia. Though the revolution has been associated with increased yield, it has resulted in increased seed prices, diminished farmers' ability to save seed, failed to alleviate hunger, and resulted in loss of biodiversity.

Rather than concentrating on increasing yield alone; therefore, it is pressing to distribute existing food supplies, consolidate farmers' control over their resources and preserving natural resources. Particularly, strengthening farmers' rights is a key factor to realizing food security in Ethiopia. The loss of biodiversity as a result of gradual displacement of local varieties is also a serious concern. The ongoing biodiversity erosion is a compelling reason to strengthen local farmers.

It is, therefore, not wise to adopt monopoly rights, particularly PBRs', in the agricultural sector of Ethiopia. The wider socioeconomic significance of agriculture for the country and its predominant reliance on farmers' varieties are compelling reason to strengthen farmers' rights. The following section deals with farmers' rights.

RIGHTS OF FARMERS IN ETHIOPIA

As discussed in the above sections, a number of ethical and socioeconomic reasons militate against the adoption of PBRs' in developing countries, particularly sub-Saharan Africa. Though the introduction of IPRs' in agriculture sector is meant to avoid trade distortion, PBRs' can hardly reduce trade distortion, if it has any impact, unless and until developed countries cease subsidizing their agriculture. If developed countries continue to subsidize their agriculture, farmers of developing countries cannot compete to sell their produce nationally and internationally. Developing countries should insist on to [further] extend the transitional period to comply with article 27(3).

Alternatively, countries that prefer to adopt PBRs' should also accord adequate protection for their farmers. Though the Ethiopian PBRs' proclamation recognizes farmers' contribution in its preamble, it does not provide for the details about how farmers can be awarded, and their rights be protected.

The incorporation of a single provision on farmers rights is more about the conditions under which farmers are to be allowed to use protected varieties. Indeed, the preamble of the proclamation eschews the necessity to award farmers despite recognizing their contributions unlike the OAU model law. There must be a fair recognition of farmers' rights since farmers varieties is the predominant feature of the Ethiopian agriculture. To strike a balance between farmers and breeders' rights, intellectual property rights should be also given to farmers. Particularly, farmers, varieties should be certified provided that they exhibit specified characteristics in a given community though they are not

distinct, stable and homogenous. This entitles farmers with exclusive rights in respect of the exploitation of their varieties.

Currently, however, farmers' rights pertain, among other things, to equitably sharing benefit sharing in respect of the exploitation of their traditional resources. In Ethiopia, farmers are entitled with 50% of the benefits obtained from the exploitation of genetic resources. Central to the benefit-sharing scheme is the dichotomy between beneficiaries and non-beneficiaries of property rights. In a situation where private breeders are granted with exclusive rights and farmers' varieties remain in public domain, the benefit-sharing scheme is meant to compensate the farmers' deprivation of property rights.^{6'} Plant genetic resources (PGRs), including those produced in laboratories, are common heritage freely available to all humankind. Later, however, national governments are vested with sovereign right over PGRs and the principle of common heritage is subjected to the recognition of plant breeders and farmers rights. Consequently, appropriation of PGRs is possible subject to payment of compensation. Therefore, the existing farmers' rights such as entitlement in benefit sharing that fall short of intellectual property rights are inadequate to protecting farmers.

CONCLUSION

The introduction of IPRs in afro-biotechnology is held to motivate private breeders to invest in improved varieties and enhance agricultural development in addition to boosting domestic research capacity. In this connection, Ethiopia has adopted PBRs' proclamation which gives monopoly rights for private breeders. Conversely, meager attention is given for farmers rights. While private breeders have IPRs, farmers' knowledge remains in the public domain and is easily appropriated subject to payment of compensation. Not only the idea of invention on products of nature questionable but also IPRs does not fit with agricultural system. The agricultural system relies on farmers' varieties and free exchange of seeds. The adoption of PVP in developing countries negatively affects developing countries and their farmers. Particularly, it limits the capacity of developing countries to meet national goals and exposes farmers to depend on expensive commercial seeds. It also leads to the erosion of agrobiodiversity. Given the fact that agriculture is the backbone of developing countries it is imperative to strengthen farmers, rights. It is not appropriate to introduce monopoly rights in plant varieties. If not, farmers should also be given intellectual property rights parallel with private breeders.

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