Getting it Right: Plant Breeders' Rights and Farmers' Rights - a SeedNL Podcast series

A *reflection on proposed solutions by Gigi Manicad (27 March 2024)*

Note: This discussion note is based on the author's reflections and perspective on the podcast conversations. This note does not represent an official position; nor definitive conclusions; nor any institutional affiliation. This note is intended to engage the wider stakeholders who are interested in the link between seeds and food; as well as experts. This engagement is intended to better understand the issues and to seek solutions towards resolving bottlenecks in accessing and using plant genetic resources for a greater diversity of seeds. We hope that the podcast series and this discussion note generate more conversations, particularly towards more solutions.

To produce food, we need seeds. To produce and manage seeds, farmers and plant breeders need continuous access to plant genetic resources. The diversity of seeds is a vital link to our food and nutrition security. Plant diversity is also important for a healthy planet; providing ecosystem services such as soil health, clean air, and moisture regulations. In addition, the seed-to-food value chain is vital for the livelihoods of many peoples and the national economic stability.

Farmers were the first plant breeders. They have been selecting and crossing plants since the dawn of agriculture - 10,000 years ago. Our crops and varieties, thereof, are the product of humans and nature interacting with each other. Crop diversity results from the diversity of peoples' needs and preferences within diverse agro-ecologies and socio-cultural conditions. Farmers' Rights are based on the official recognition of "the enormous contribution that the local and indigenous communities and farmers of all regions of the world, particularly those in the centres of origin and crop diversity, have made and will continue to make for the conservation and development of plant genetic resources which constitute the basis of food and agriculture production throughout the world"[1]. Farmers' Rights include the right to the protection of traditional knowledge, the right to save, use, exchange and sell farm-saved seed/propagating material, the right to participate in decision making and the right to share in the benefits. The implementation of Farmers' Rights is to be specified by each country in line with its agricultural, economic, societal and cultural needs and specificities.

Plant breeding is important because the world keeps changing and the plants need to be adapted to these environmental and market changes. Most domesticated plants that feed the world will deteriorate without human interference. Plant breeding and innovation are constantly needed to

[1] Farmers' Rights | International Treaty on Plant Genetic Resources for Food and Agriculture | Food and Agriculture Organization of the United Nations (fao.org)

improve crop productivity, adapt to stresses and cater to varying needs and preferences. Plant Breeder's Rights are intended to encourage breeding by granting the breeder the exclusive right to the variety developed. This includes the exclusive *commercial* right to the specific variety as an incentive to invest in breeding. At the same time, the 'breeders' exemption' allows the use of protected varieties for further breeding by other breeders, including farmers. Hence, the exemption provides materials for other plant breeders to develop new varieties.

Plant Breeders' Rights and Farmers' Rights are dependent on continued access to plant genetic resources. The access is important for both breeders and farmers to breed, adapt and use more varieties for farmers to grow our food. Plant Breeders' Rights are recognised to promote the formal seed system (public and private); whilst Farmers' Rights are recognised to strengthen informal or farmers' seed systems. Plant Breeders' Rights and Farmers' Rights are often seen as contradicting one another. On one hand, there are concerns that breeders' rights may impinge on the rights of farmers to use and sell farm-saved seeds. On the other hand, there are concerns that Farmers' Rights may impinge on the exchanging and selling of protected varieties. But rather than seeking solutions, we are getting stuck in polarised debates.

This podcast series brought together experts from diverse stakeholders to unpack the issues. There are many debates on Plant Breeders' Rights and Farmers' Rights. What makes the podcast series unique is that the focus was not only on problems, but more importantly it sought for commonalities and solutions.

Steps towards possible solutions

In the podcast series, there is a general consensus that the disharmony between Plant Breeders' Rights and Farmers' Rights is not that big, both in theory and practice. However, it is the complexity of the context and the underlying perceptions and positions that are harder to resolve.

As far as the (semi)subsistence farming in developing countries are concerned, 80-90% of their seeds are from their own farmers' seed systems. Given the farmers' low adoption rate of seeds from the formal sector, there is a slim probability of these farmers using protected varieties; and the sharing and trading of these protected varieties at commercial scale. Hence, if ever they happen to use protected varieties, these may well be considered to fall within the category of "private and non-commercial use" activities.

Article 15(1)(i) of the Union for the Protection of Plant Varieties (UPOV) 1991 does not define "private and non-commercial use". Its explanatory note states that "a compulsory exception sets out that Breeders' Rights do not extend to "acts done privately and for non-commercial purposes. With subsistence farming, it is observed that the farmer produces only enough food for their consumption and that of their dependents. Thus, the propagation of a protected variety by a farmer exclusively for the production of a food crop to be consumed by that farmer and the dependents of the farmer may be considered to fall within the meaning of acts done privately and for non-commercial purposes"[2].

[2] UPOV. Frequently asked question: Frequently asked questions (upov.int)

However, the exploratory note is seen by critics as far too narrow, restricting subsistence farmers' households and communities from using, exchanging and selling even limited amounts of protected varieties. A broader definition and metrics are needed.

Moreover, monitoring and enforcing penalties for (semi)subsistence farmers in marginal areas for the minute possibility of them trading in minute quantities of protected varieties are logistically impossible, disproportionally costly and morally untenable. More importantly, resolving this bone of contention between Breeders' and Farmers' Rights will likely generate goodwill and create trust. By removing uncertainties and clearly establishing both rights, breeders and farmers can have greater confidence and "breathing space" to innovate; and the stakeholders from both sides may be able to move forward with more imaginative and fruitful collaboration for a vibrant and inclusive seed sector. In addition, the price of inaction is bleak as we face plant genetic erosion and increased vulnerabilities to climate change, poverty and social unrest.

The following steps towards solutions are based on constructive dialogues that are premised on the principles of respect and trust-building: (i) mutual recognition and respect for each other's roles and contributions; (ii) mutual understanding of the differences in approaches, scope and scale of operations and the challenges; (iii) recognising and addressing the highly uneven playing field in seed policy and laws, which are generally unsupportive of smallholder farmers; (iv) focused and evidenced–based understanding of the factors that facilitate and hinder the complementary implementation of Breeders' and Farmers' Rights.

1. Recognise and value the common objectives and contributions of both the formal and farmer seed systems.

   Whilst recognising the enormous contribution of farmers as enshrined in the International Treaty on Plant Genetic Resources for Food and Agriculture; it is important to recognise the continuing role of farmers *in situ* conservation, sustainable use and innovation and how their systems provide food security and livelihoods to the 500 million farming families worldwide[3]. At the same time, it is also important to recognise that breeders in the formal seed sector aim to continue to contribute towards generating new plant varieties with improved traits and qualities that meet the needs of farmers as well as the needs of consumers. Hence, whilst catering to various types and sizes of farming, both the formal and farmers' seed systems aim to bring better seeds to farmers in order to improve their households' and countries' food and nutrition security.

   Both the formal and farmers' seed systems contribute to goals to meet societal challenges like food insecurity, coping with environmental and market changes, and climate change.

2. Recognise the long-term and high investments in breeding and the corresponding need for financial returns. There is also a very high intellectual value in innovations. The Breeders' Rights model is premised on the principle that it enables any breeder who wants to create a new variety, to have access to the broadest possible genetic basis to

[3] According to FAO, IFAD and the World Bank

combine the right traits. Unlike patents, Plant Breeders' Rights, in most cases, do not prohibit other breeders from using the protected variety for further breeding work.

3. Recognise that the formal seed system relies on laws and regulations (such as on national variety testing, registration, seed quality control and certification, phytosanitary, etc.) to maintain varietal integrity, to guarantee that the seeds coming from the formal sector meet high-quality standards and to provide legitimacy and assurance for the farmers and the seed trade. These rules are designed to protect both farmers (from counterfeit products) and private commercial actors (guarantee protection of their inventions from free-riders).

4. At the same time, recognise and address that many of these laws and regulations do not fully recognise, and support farmers' seed systems. In many countries, farmers' seed systems contribute 80-90% of the seeds used. Yet, they are not recognised and supported, i.e. with freedom to operate; access to PGRFA; access to information; registration of farmers' varieties; access to technical and financial services. Worse, some laws may even prohibit some of the key functions of the farmer seed systems such as local seed exchange and trading in local markets. In effect, farmers' livelihoods can be penalised and criminalised.

5. Conduct constructive dialogues based on empirical evidence to understand: (i) why seed laws in some developing countries are more restrictive than necessary; (ii) the experiences of countries who have developed (and possibly implemented) Farmers' Rights and why other countries have not done so; (iii) the corresponding global guidance and research processes that may have influenced policy support; and (iv) legislate seed laws that support both seed systems and put emphasis on the needs and interests of (smallholder) farmers.

6. Pursue and speed-up the discussions to resolve the issue on the constructive interpretation of "private and non-commercial use", including the visits and dialogues between and within countries with diverging opinions. For instance, Plantum, Euroseeds and Oxfam Novib jointly proposed a flowchart that could facilitate a broader definition of what can be considered to be 'private and non-commercial use'[4].

[4] see: https://sdhsprogram.org/upov_exception_smallholderfarmers/