To a farmer, the product of the harvest is intended as much to feed the family and community and be sold at market, as to be used on the farm as propagating material. Informal seed systems, which mostly use part of the harvest as propagating material, currently produce more than 70 per cent of food available worldwide. Compelling these peasant farmers, who often lack the means to buy commercial seed, to stop producing their own propagating material is above all an attack on food security. Many countries are adopting laws that rely on the International Convention for the Protection of New Varieties of Plants (UPOV Convention) to criminalize all exchanges of seed that is not certified according to the UPOV Convention’s standards of distinctness, uniformity and stability, thereby depriving farmers of any supply of freely reproducible seed. They also criminalize the self-generation of propagating material from the only commercially available seed, in order to entrench their monopoly not only over the market, but also the fields. If the International Union for the Protection of New Varieties of Plants (UPOV) no longer wishes to be accused of undermining food security in this way, it must clearly state that it does not endorse such laws.

Producing on a farm propagating material intended for cultivation on the same farm is the best way of adapting it to the desired growing conditions. This local adaptation is a key factor in the resilience of agricultural systems to both irregularity and the increased frequency and scale of changes in climate. The other key factor in resilience is diversity within and between varieties of the propagating material used. Farmers regularly renew that diversity through informal seed exchange systems.

The commercial varieties protected by the UPOV system lead to an adaptation primarily to the needs of networks, which require standardized products, and the standardization of growing conditions through inputs, mechanization and, often, irrigation. These widely disseminated varieties cannot, however, be adapted to each of the soils or environments in which they will be cultivated, nor to each abrupt change in climatic conditions. Only farmers can perform that essential adaptation, by reproducing and reselecting varieties over several years in their own fields.

The commercial varieties of the UPOV system have all been selected from the millions of peasant farmers’ varieties – collected free of charge in all the fields of the world – which constitute almost the entirety of the plant genetic resources in germplasm banks. Basic fairness dictates that peasant farmers may do the same by freely reusing commercial seed that they have bought.

Beyond such basic fairness, the seed industry will increasingly need to let peasant farmers use their farm-saved seed. Biodiversity is not a collection of inanimate objects kept in a dark corner. It is the diversity of life, constantly evolving, endlessly renewed. The same goes for agricultural biodiversity. No matter how large it is, the current stock of plant genetic material is finite. In addition, if it is not regularly renewed, it gradually disappears. The loss of agricultural biodiversity that accompanied the spread of homogenous and stable commercial varieties restricts opportunities for renewal. Furthermore, the current dematerialization of resources leads to an incalculable loss of all genetic information that cannot be digitized. The innovations of genetic engineering, which amount to several hundred genes integrated in all crops worldwide, further accelerate that loss. While it is claimed that these innovations make for greater adaptation to
extreme climatic conditions, they will never offer adaptation to the increasing variability in climatic conditions, nor to the diversity required by their different rates of development in each soil.

New genetic complexes adapted to increasingly rapid changes in growing conditions appear in the fields of peasant farmers who painstakingly select them, year after year, in those growing conditions. The hundreds of millions of peasants who reproduce their seeds each year create far more new diversity than a few thousand researchers with sophisticated equipment. This constant renewal of agricultural biodiversity in the fields is invaluable, not only for its adaptation to growing conditions that vary from place to place, but also to replenish the industry's stock of plant genetic resources. Only by drawing on that updated stock can the industry once again produce the innovations needed by today's farmers.

The formal and informal seed systems can no longer exist in a state of war with each other. The formal system developed by drawing all its resources from the nooks and crannies of the informal system. It will not survive if it destroys the fertile earth that nurtures its roots, nor by feeding solely on the beeps of digitized data. Its survival also depends on the right of peasant farmers to save, use, exchange and sell their farm-saved seed, as guaranteed by the International Treaty on Plant Genetic Resources for Food and Agriculture.

These rights are not antithetical to the founding principles of UPOV, which guarantee the breeder's rights to reserve the exclusive commercial use of the propagating material from a protected variety. This does not mean allowing a farmer to resell seed claiming the denomination and characteristics of a protected variety without the breeder's authorization. However, once a peasant farmer has reproduced farm-saved seed, without maintenance breeding the characteristics of a breeder's variety, it necessarily evolves, more or less rapidly according to the species, towards a better local adaptation and the development of new characteristics. The exception of selection is a founding principle of UPOV and there is no reason to exclude adaptive selection by peasant farmers or limit it to directed crosses.

UPOV must evolve to accept this fair balance between the rights of breeders and the rights of farmers, in the interests of its own survival and, above all, of food security.