



Plant Genetic Resources for Food and Agriculture: Use and Conservation

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The development of new varieties is essential to increase the productivity of food crops to match the growing world population. While new technologies may allow plant metabolism to be improved thereby rendering access to new plant genetic resources less important, it also allows a better use of genetic resources.

Any genetic material of plant origin that is of potential value for creating improved germplasm is a plant genetic resource. FAO categorises them into wild and weed species, closely related to cultivated species, landraces, special genetic stocks including elite and current breeders' lines, cultivated and obsolete varieties. Not all genetic resources have the same immediate utility. Public or private breeders, for instance, mostly use germplasm from adapted and productive commercial varieties in the creation of new varieties.

The maintenance of genetic resources requires the active involvement and support of governments. It is indeed like education, a long-term activity measured over decades and therefore of public interest. To place such a burden on the various agricultural sectors such as the agro-food industry, farmers and breeders would be counter-productive in the struggle against hunger and malnutrition.

Access to PGRFA

Farmers and breeders have traditionally relied on open access to genetic resources, including improved commercialised varieties protected under the UPOV Convention. However, with the entry into force of the Convention on Biological Diversity (CBD) the sovereign right of nations to control access to their biological diversity has received formal recognition and complicated access to genetic resources.

Bilateral approaches through the CBD may be appropriate when a small number of countries need access to a particular species or group of species, and/or when highly expensive and specialized research gives a strong competitive advantage to an institution. Such conditions may prevail in the case of some industrial crops such as rubber. In addition, bilateral agreements can be tailored to the needs of the parties or can be created for specific purposes and then dissolved without the need of heavy structures; they also offer greater confidentiality.

For these reasons, ISF acknowledges the necessity to keep open the opportunity for bilateral agreements. However, the future of agriculture depends on international cooperation and on expanding the exchange of crops and their traits that farmers and breeders all over the world have developed and exchanged over years. Since all countries and regions of the world today are strongly interdependent in their use of genetic resources for food and agriculture, ISF supports the International Treaty on PGRFA that the FAO Conference adopted in November 2001. This legally binding Treaty covers all plant genetic resources relevant for food and agriculture and is in harmony with the Convention on Biological Diversity.

Through the Treaty, which came into force on 29 June 2004, countries have agreed to establish an efficient, effective and transparent Multilateral System to facilitate access to plant genetic resources for food and agriculture, and to share the benefits in a fair and equitable way. Genetic resources may be obtained from the Multilateral System (MS) for utilization and conservation in research, breeding and training. When through research and improvement of these resources a commercial product is developed, its availability to others for further research and breeding is benefit sharing 'in kind'. In such a case monetary payment to the fund that will be established for purposes of implementing the Treaty (Article 19.3.f) is voluntary.

If, however, the commercial product is not available to others for further research and breeding without restriction, the Treaty provides for payment of an equitable share of the resulting monetary benefits to the above-mentioned fund. While the Treaty covers all species for food and agriculture, the Multilateral System applies to 64 major food crops and forages and the conditions for access and benefit sharing will be specified in a standard Material Transfer Agreement (SMTA). These 64 major food crops and forages, however, do not include all the species important for food and agriculture. These additional species will most likely fall under the purview of CBD. ISF is of the view that the conditions for access to this germplasm and benefit sharing from its use be governed by an MTA the same as that of the Treaty.

Benefits of the Multilateral System

As early as 1998, ISF (then ASSINSEL) adopted a position in favour of a Multilateral Agreement and, therefore, welcomes the signature of the International Treaty on PGRFA. It, however, regrets that the list of crops included in the Multilateral System is limited and would like to see more crops added as soon as possible.

Multilateral approaches offer opportunities for developing common and cost-effective conservation strategies, and for coordination and mutual support among partners. It offers participants access to a far greater range of germplasm than is generally possible in bilateral arrangements. Thus, it is preferable for crops with a wide geographical distribution. This advantage is even greater if one considers multilateral agreements covering a range of crop species.

It provides access to a wider range of information than is available bilaterally and offers opportunities to use information cost-effectively, avoiding duplication of efforts and unnecessary expense by sharing databases. Multilateral arrangements have proven to be highly effective in fostering a supportive climate for innovation, as well as in promoting collaborative research and providing training opportunities at a wide range of specialized institutions. The multilateral approach, with a globally agreed SMTA that is efficient and consistent with commercial practices will decrease the complexity and high cost of individual transactions.

For these reasons, ISF, whilst preferring a broad multilateral agreement, acknowledges the necessity to keep open the opportunity for bilateral agreements, particularly for plant species not included on the restricted list of the Treaty. However, these bilateral agreements should be established according to guidelines defined within the overall framework of the multilateral agreement and in a manner consistent with efficient commercial practices.

Implementation of the International Treaty on PGRFA

Although disputed phrases such as "their genetic parts or components" and "in the form received" in Article 12.3.d still need to be clearly defined, ISF believes that genes or molecular sequences isolated from the accessed plant material should not be considered "in the form received". ISF looks forward to the implementation of the Treaty. It is in favour of facilitated access to PGRFA as an important source of breeding material for use in the

development of new varieties of plants and supports the principle of equitable sharing of the benefits arising from the commercialisation of these new varieties.

ISF strongly believes that the implementation of the International Treaty rests on the Multilateral System and the standard Material Transfer Agreement to be used for access. The terms of the SMTA, still being negotiated, must not change the spirit of the Treaty, in particular Articles 12 and 13. According to the Treaty, mandatory monetary benefit sharing occurs when a product is commercialised, except that whenever such a product is available without restriction to others for further research and breeding (Article 13.2.d (ii) of the Treaty). Thus, the triggering conditions for mandatory monetary benefit sharing are commercialisation and proven non-availability of the product for further research and breeding. If one of these conditions is not fulfilled, there is no mandatory monetary benefit sharing, in addition to the benefit sharing by technology transfer.

In order to finalize an SMTA that will be used within the MS, an expert group (whose terms of reference can also be found on the ISF website under *Terms of Reference for the Expert Group on the Terms of the Standard Material Transfer Agreement*) was established by FAO. The questions asked to experts were of a different nature: technical on the one hand, financial and policy-related on the other hand and, finally, on implementation. ISF's view on these questions can also be found on the ISF website under *ISF Contribution to the Establishment of a Material Transfer Agreement (MTA) for the Multilateral System (MS) of the International Treaty on Plant Genetic Resources for Food and Agriculture*.

The expert group in their deliberations recommended that the Interim Committee of the International Treaty establish a Contact Group to draft elements of the SMTA for consideration of the Governing Body.

Conclusions

With respect to the future use and conservation of plant genetic resources for food and agriculture ISF:

- Supports the International Treaty on PGRFA and access to genetic resources for food and agriculture through the Multilateral System
- Encourages the expansion of the list of crops under the Multilateral System and believes the terms of the standard Material Transfer Agreement must be fair and true to the spirit of the Treaty
- Urges Parties to the Treaty to rapidly adopt a commercially functional SMTA for a quick and full implementation of the Treaty
- Recommends a far stronger government support for the conservation of genetic resources for food and agriculture and for the FAO Global Plan of Action
- Asks that conditions for access and benefit sharing for germplasm of species not covered by the Multilateral System and that fall under the purview of the CBD be governed by an MTA the same as that of the Treaty.