Plantum

BIODIVERSITY

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Genetic variation must be widely available

To develop new plant varieties, breeders need material for their crossings. They mainly use modern (commercial) varieties and their own material. They supplement this with genetic sources from nature or pre-modern agriculture. This concerns, for instance, wild relatives of cultivated plants or old agricultural varieties. These plants may contain essential new properties for the future, such as resistance to diseases and pests or properties that make the plant resilient to climate change.

Biodiversity is the basis of plant breeding. For a healthy future, it is essential that all breeders have access to the available genetic variation. The elaboration and lack of clarity of international treaties and (local) legislation can hamper this access.

Plantum is committed to the exchange of genetic material under reasonable conditions. No or poor access limits innovation, thereby threatening food security and biodiversity.

The Biodiversity Convention

For a long time, genetic material was seen as a common inheritance: plant material was freely exchanged around the world. This situation changed with the arrival of the Convention on Biological Diversity (CBD) in 1994. This Biodiversity Convention focuses on the conservation of organic diversity, its sustainable use and a fair sharing of the benefits of the use of genetic resources. Since then, a country of origin has been able to impose requirements on access to and use of a genetic resource. Authorities of this country can now ask for compensation. This may be financial compensation, or, for instance, compensation in the form of a joint project or access to results from research with the genetic resource in question.

The Nagoya Protocol

The Biodiversity Convention was further elaborated in 2010 in the so-called Nagoya Protocol. Both treaties are difficult to implement in practice. Because authorities do not know what to do with them, applications for a genetic resource are sometimes left on the shelf for years or applicants give up because unreasonable conditions are imposed. For instance, countries find it difficult to make a specific proposal for compensation. Or governments impose the unrealistic requirement that an organisation continues to pay forever for the use of a genetic resource. As a result, international exchange hardly takes place, if at all.

Uncertainty about access and use

The use of genetic resources threatens to become extremely expensive for companies, especially because a breed can contain genes from dozens of different countries (see figure below). In addition, it is often difficult to determine which country owns a genetic resource. After all, material from a gene bank, botanical garden or other collection may come from another country. Some countries are also claiming their rights retroactively. This may mean that companies will still have to make agreements with a country of origin about genetic material that they have received in the distant past.

System for use of knowledge

But it gets even more complicated. Parties to the CBD have decided that agreements must be made not only about access to and use of genetic material, but also about knowledge of genetic material (not defined). The knowledge is called Digital Sequence Information (DSI). It has been agreed to develop a multilateral system for benefit-sharing of DSI. In other words, a single international payment mechanism for working with DSI. Plantum advocates that such a system is viable and affordable, that there are no exceptions to the system and that the system is also used for physical genetic resources.

This is to prevent different payment mechanisms from arising simultaneously and financial obligations from piling up.

Smaller companies in particular are expected to experience disadvantages from these agreements. They often do not have the legal and financial capacity to deal with these rules.

SEPARATE TREATY FOR FOOD CROPS

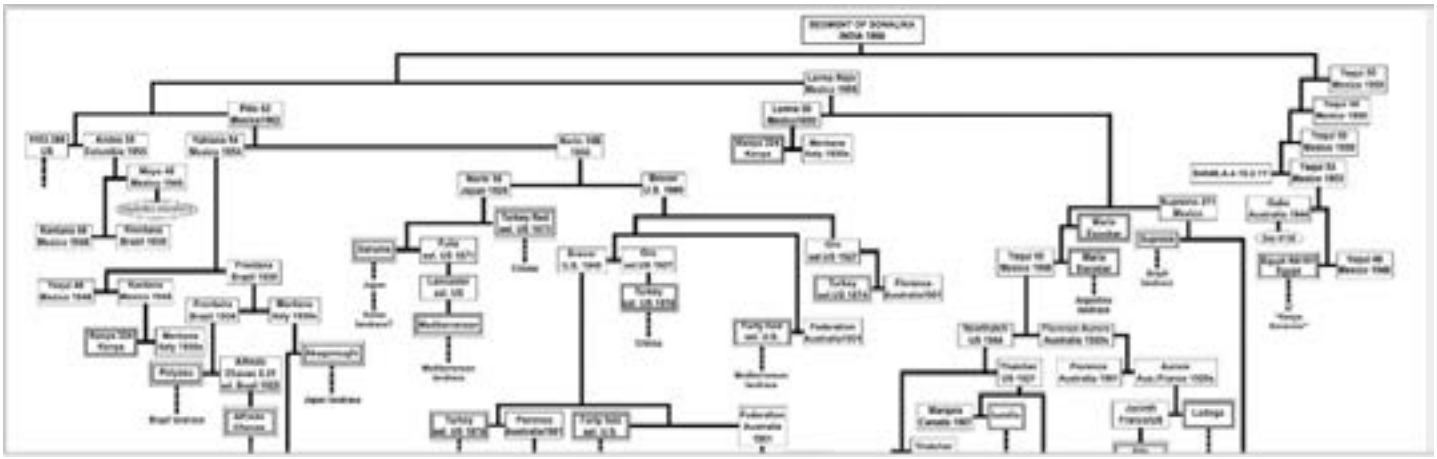
The Food and Agriculture Organisation of the United Nations, the FAO, has developed a separate treaty for genetic resources that are important for agriculture and food supply: the International Treaty on Plant Genetic Resources for Food and Agriculture. This treaty includes a breeding exemption. This means that organisations that want to use a genetic resource only pay if an end product is not freely available for breeding and research, for instance, because it has been patented. Unfortunately, this FAO treaty applies to only a limited number of crops and the obligations in this treaty are in principle perpetual. Moreover, many participating countries are currently not implementing their obligations, and genetic resources are ultimately not available under the agreed conditions.

THE BEST SOLUTION FOR NOW

Despite these objections, Plantum believes that the current FAO treaty is the most viable solution for access to genetic resources. Plantum therefore advocates that this treaty should apply to all crops and the associated diseases and pests. However, the conditions are currently being revised, making it uncertain whether the FAO treaty remains the best solution.

ACTIVE CONTRIBUTION TO BIODIVERSITY

Breeders have long been aware of the importance of biodiversity. They work together with gene banks to expand collections and secure genetic resources for the future. Breeders thus contribute directly to the conservation of biodiversity and food security. Click here for more information.



Part of the origins of a wheat variety. This part alone contains parents from 20 countries.
Source: Plant Genetic Resources Newsletter