

# ENSURING BIODIVERSITY

As seed companies are urged to keep track of their genetic resources, *European Seed* offers an overview of the Nagoya Protocol and what it means to the industry.

*EDITOR'S NOTE: This is part one of a two-part series exploring the Nagoya Protocol and its impact on the European seed industry. Watch for part two in Volume 2, Issue 2 of European Seed.*

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**S**ince 1994 the Convention on Biological Diversity has been in force, and one of the pillars of it is access and benefit sharing. Countries have sovereign rights on their genetic resources and to the use of those resources, and as such Prior Informed Consent and Mutually Agreed Terms may be needed to use the genetic materials and settle the benefit sharing resulting therefrom.

As far back as the eighties, countries recognized that they were very much depending on each other for plant genetic resources for food and agriculture. Therefore, the International Treaty on Plant Genetic Resources developed a multilateral system to facilitate access and benefit sharing of plant genetic resources for food and agriculture through the so-called multilateral system. In that system, access and benefit sharing are organized through a standard contract that was internationally negotiated.

However, there was one problem. Access and benefit sharing through the Convention on Biological Diversity did not take place at a large scale, and therefore it was decided to develop a separate protocol to the elaborate access and benefit sharing process. This resulted in the Nagoya Protocol, which consists of three elements:

- Facilitation of access
- Benefit sharing arrangements
- Compliance elements

The Nagoya Protocol still needs to be implemented at a national level. The Convention on Biological Diversity and also the Nagoya Protocol often are not implemented through national legislation, which led to rules and legislation that are not applicable for individual access and benefit sharing agreements in practice.

"The reason to come up with the Nagoya Protocol was that the access and benefit sharing provisions in the Convention on Biological Diversity were not sufficiently elaborated," says



The Nagoya Protocol was adopted in 2010 after lengthy negotiations.

Anke van den Hurk, vice-director of Plantum, the Dutch association for the plant reproduction material sector. "Moreover, the Bonn guidelines, a guidance document for the implementation of national access and benefit sharing legislation, did not result in appropriate national legislation [or] ultimately benefit sharing."

Van den Hurk states that this was especially noted in developing countries, where it was felt that benefit sharing still did not take place, as the Bonn guidelines were voluntary. They felt the need for a binding system. After many years of negotiation, the Nagoya Protocol was adopted in 2010.

According to the Nagoya Protocol, governments need to define access rules, establish benefit sharing agreements, and ensure compliance in user countries.

Particularly relevant for the seed sector is that the Nagoya Protocol recognises specialised access and benefit sharing regimes, and genetic resources used according to those are excluded from the Nagoya Protocol. The access and benefit sharing mechanism of the International Treaty on Plant Genetic Resources is one of the recognised systems. Furthermore, the Nagoya Protocol acts to raise awareness, build capacity to support implementation and act as a hub for the collection and distribution of information on topics such as domestic regulatory access and benefit sharing.

In plant breeding it is crucial that there is simple and easy access to genetic resources to develop commercial varieties, so it comes as no surprise that the seed industry has been discussing the Nagoya Protocol and its impact on the industry.

"Through the Convention on Biological Diversity, and now more explicitly through the Nagoya Protocol, access to genetic resources can only be obtained in a legal manner if Prior Informed Consent and Mutually Agreed Terms have been obtained," says van den Hurk. "This is not necessary in countries that do not require this, and also not necessary in cases where the International Treaty on Plant Genetic Resources system is used. Most people say that the Standard Material Transfer Agreement, as elaborated under the [treaty], may serve as Prior Informed Consent and Mutually Agreed Terms. The latter, however, is not officially agreed upon by the parties of the Convention on Biological Diversity nor the Nagoya Protocol."

## Compliance Measures Needed

As in the Nagoya Protocol, compliance measures for user countries are required. A user (so also a plant breeder) may be approached/checked from two sides — first from the country that is providing the genetic resources and later from the user country. With the implementation of the Nagoya Protocol in the European Union, legislation is just focusing on compliance measures, as users of genetic resources have a due diligence obligation.

The Convention on Biological Diversity/Nagoya system requires individual businesses to negotiate bilateral contracts between themselves and the provider country. This means that each company has to negotiate with countries to get access to desired PGR.



Van den Hurk continues: "You may negotiate on a private level, but you could also negotiate on a group level. Through Plantum we have done several collaborative efforts to obtain access to genetic resources with different levels of success."

Those efforts include:

- Collecting missions in Central Asia: It was agreed that these missions could take place and that the genetic resources would be shared between the gene bank of the country and the Dutch gene bank CGN. Additionally, resources could be given out under the conditions of the Standard Material Transfer Agreement.
- A country in Latin America did not respond to a request for access in exchange for a research and capacity building project. Hence the access and benefit sharing did not take place.
- Currently a pilot is being carried out in China for the exchange of genetic resources of an ornamental species.

It is clear that this approach, with a lot of negotiations, places small- and medium-sized companies at a disadvantage. Many officials have not been able to see those consequences, let alone take care of a solution. For the moment, nothing is foreseen to address this problem in the Convention on Biological Diversity, nor the Nagoya Protocol.

## "THE LONGER THESE UNCERTAINTIES CONTINUE, THE LARGER WILL BE THE NEGATIVE EFFECT ON THE INNOVATION IN OUR SECTOR."

"The International Treaty on Plant Genetic Resources, however, understands the activities of the plant breeding sector much better. Moreover, it understands the interdependence of countries and makes the exchange of genetic resources relatively simple through a standard contract. This contract is used especially for materials from gene banks," says van den Hurk.

It is important to stress that everybody may benefit from the gene banks. They conserve genetic resources for humankind. Moreover, every country is depending on resources from other countries while doing plant breeding, in particular for genetic resources for food and agriculture.

To date, implementation of the International Treaty on Plant Genetic Resources also has had its challenges, and those who thought that working with Annex 1 crops would be simple have had to think again. Companies working with Annex 1 crops should not assume that they automatically fall under the International Treaty on Plant Genetic Resources system as not all countries, members of the Convention on Biological Diversity and/or the Nagoya Protocol, are members of the treaty. Additionally, genetic resources found in situ in member countries do not automatically fall under the multilateral system. Even ex situ collections of genetic resources do not always automatically fall under the treaty. These genetic resources have to be placed under the multilateral system.

### Efforts to Inform Industry

Over the past number of years, national, regional and global seed associations have been informing the seed industry about the implications of the Nagoya Protocol. Some proactive seed companies have been heeding the many presentations and have prepared themselves in advance.

"We have used 2014 to prepare for the new rules that will become applicable this year," says Lisanne Boon, company lawyer at Rijk Zwaan in the Netherlands. "Together with our researchers and breeders, we have redrafted our current procedures to comply with these new, stricter rules. In this procedure, we have tried to combine the legal aspects, as laid down in the biodiversity legislation, with a pragmatic approach, ensuring to the best extent possible that biodiversity is conserved, used and results in benefits for people all over the world — not only in the developed countries, but also in the developing countries."

But that's not all. Companies need to be aware of several other factors.

"It is very important for companies to know which genetic resources in a country fall under access and benefit sharing legislation. Fresh products in supermarkets, seeds or planting material bought in a local market or even seeds or planting material obtained through a farmer or research institute may be covered by the access and benefit sharing legislation," says van den Hurk.

Seed companies, though, feel there is still much uncertainty about the implementation by the European Commission.

"A complicating factor is that there are still many questions that need to be answered by the European Commission and the national governments," says Boon. "We have noticed that this creates substantial uncertainties. As a consequence, some companies become overly protective, blocking the acquisition of new material. The longer these uncertainties continue, the larger will be the negative effect on the innovation in our sector."

Boon notes that already, on several occasions, they have worked to prepare their breeders for new legislation to come. "They realize that it is something that we will have to deal with, even though it is not always easy to understand why these rules are being imposed. It is difficult to see how the new rules contribute to conservation and sustainable use of biodiversity. There is a big concern that accessing new material will only become even more difficult."

And there are more concerns ahead. "Being a multinational organization, our group companies are located all over the world — which means that we will possibly be faced with many different implementations of the Nagoya Protocol," Boon says. "Given the strong interdependence of the group companies, we nevertheless decided to develop one procedure for the entire group. We want to ensure that intergroup exchanges of material are not hampered by unnecessary administrative rules."

Looking forward to the coming year, Boon adds that Rijk Zwaan plans to stay active. "We will use this year to inform our colleagues in more detail about the new procedure that we have prepared — both through presentations and via written communications." ▼

### WHERE ON THE WEB

To learn more about the Nagoya Protocol and the Convention on Biological Diversity visit [www.cbc.int/abs](http://www.cbc.int/abs). Also watch for part two of our coverage on the Nagoya Protocol in Volume 2, Issue 2 of *European Seed*.

