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COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

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INTERGOVERNMENTAL TECHNICAL WORKING GROUP ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

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JOINT REPORT FROM THE INTERNATIONAL SEED FEDERATION AND THE EUROPEAN SEED ASSOCIATION TO THE INTERGOVERNMENTAL TECHNICAL WORKING GROUP ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

1. The International Seed Federation (ISF) (www.worldseed.org) represents the global seed industry and its vision is to build “A world where the best quality seed is accessible to all, supporting sustainable agriculture and food security”.
2. In order to achieve its mission: “To create the best environment for the global movement of seed and promote plant breeding and innovation in seed”, ISF elaborated five Strategic Objectives “2016-2020”.
3. One of those is “to promote the International Treaty as the preferred tool to administer Plant Genetic Resources for Food and Agriculture (PGRFA), making the process more business oriented and user-friendly.”
4. Thus, the conservation and sustainable use of PGRFA is very important for the seed industry as innovation in plant breeding has always been based on the access to genetic resources. Indeed, by incorporating and recombining novel and adapted genetic diversity into new varieties, modern plant breeding is creating varieties to address tomorrow’s challenges: adaption to climate change, new pests and diseases, food security, population growth, farmers’ constraints etc.
5. The European Seed Association (ESA) is the voice of the European seed industry, representing the interests of those active in research, breeding, production and marketing of seeds of agricultural, horticultural and ornamental plant species.
6. ISF and ESA are both actively engaged to raise their members’ awareness on access and benefit-sharing (through the Nagoya Protocol and the ITPGRFA). They also wish to raise governments’ and civil society’s awareness on the multiple activities breeding companies and national/regional seed associations put in place to voluntarily share their benefits arising from the use of plant genetic resources. This in-kind endowment should not be forgotten and represents several billion US Dollars all around the world.
7. ESA has set up a website on its home page where information on activities of the seed sector and related projects are presented: <https://www.euroseeds.eu/voluntary-benefit-sharing-activities-european-seed-industry>. Already many of the included projects have a focus on countries outside Europe but ISF and ESA are now working together to further complete this database, on a global level.
8. Actions and projects of seed companies and national/regional are presented on the site in nine categories. In the following we mention a few projects only for the sake of exemplifying the activities of the plant breeding and seed industry. A collection of approximately 60 projects is available on the mentioned website and hereby we invite you to visit the site to get a more comprehensive overview on the voluntary benefit-sharing activities of our sector:
 - **Providing advice on conservation and sustainable use of PGRs**
9. It is very common that private breeders participate in the work of national advisory committees on issues concerning plant genetic resources (PGR). In this way they can directly share their expertise and provide their input to responsible authorities in important policy decisions related to PGR.
10. For example Plantum, the Dutch seed association has a seat in the advisory board of the Dutch genebank - Centre for Genetic Resources (CGN) - advising on issues such as the vision and policy of CGN; the implications of international rules and legislation on policy and exchange of genetic resources from CGN; the planning and follow-up the activities of CGN.
 - **Direct involvement in the management of collections**
11. It goes without saying that breeders in many countries contribute significantly to the tasks related to the day-to-day management of national collections by providing their services directly to gene banks without any compensation in counterpart. These activities may include several elements

such as helping in setting up of collections; evaluation, characterization, documentation of PGR; maintenance of collections etc.

12. A good example is France where breeders have contributed to the setting up and maintenance of a number of collections in rare species.

13. The USDA Germplasm Enhancement of Maize (GEM) program is another good example, which benefits directly from support from one major American seed company which provides each year 2 000 yield trial plots and some nursery rows to the USDA GEM. Selections from the resulting breeding populations are made publicly available as “GEM” lines.

- Providing plant genetic resources to the Multilateral System (MLS)

14. In many cases breeders also support genebanks by directly providing them with accessions of plant genetic resources which are then included in the MLS of the International Treaty and are available under the conditions of the Standard Material Transfer Agreement (SMTA). For example, 6 percent of the 24 000 accessions provided by the Netherlands to the MLS are coming from private breeders. In the United Kingdom, members of the British Society of Plant Breeders (BSPB) deposit approximately 100 lines per year to the national collection, available in the MLS. In France, Pro-Maïs, a non-profit maize breeders’ organization, notified 533 accessions to the MLS.

- **Direct financial support**

15. Private breeders also provide direct financial support to certain activities or projects of national gene banks, conservation programs or other projects.

16. For instance, a global seed company provides financial support and is involved in maize germplasm evaluation and enhancement programs in India [the International Maize Improvement Consortium (IMIC)] and with INTA in Argentina and INRA in France.

17. Seed associations are also directly involved in the financial support of genetic Resources. For example, ESA collected EUR 300 000 from its company and association members and donated directly to the Benefit Sharing Fund of the ITPGRFA. ISF announced very recently that it will make a symbolic donation to both the Global Crop Diversity Trust and the Benefit Sharing Fund of the ITPGRFA, as both *in situ* and *ex situ* conservations are of a great importance for seed industries.

- **Sustainable use of PGR and facilitated access**

18. The continuous creation of new varieties with new combinations of genes that are more resistant to diseases and pests, that are adapted to special needs of producers and consumers as well as to the climate and that produce more is an important contribution to diversity and a basis for further crop improvement. Through the internationally accepted principle of free access for further breeding (also known as the breeders’ exemption), varieties on the market are directly freely available to anybody who would like to do further breeding. This stimulates innovation and allows all breeders, be it from big or small companies, farmers, developed or developing countries, to continue development.

19. Furthermore, most of the technology transfer and capacity building projects that are presented on the website include also the support to sustainable use of PGRFA.

- **Dissemination of technology**

20. The availability of new, improved varieties is technology transfer in itself. Dissemination of technology often happens via public-private partnerships, which partnerships usually focus on the pre-breeding phase.

21. Private companies in many countries actively participate in such projects by contributing their expertise, facilities and also in many cases part of the budget of the project.

22. A good example is the SEVIA project in Tanzania, initiated by 2 seed companies and the public sector. It aims to contribute to the development of the vegetable industry in Africa and to food security, for example by developing and disseminating adapted technical innovations in order to enhance productivity and to increase farmers' income and by carrying out variety testing trials to identify well adapted varieties per region.

23. The project "Hybrid Wheat for Food Security" is another example of technology transfer, which aims at establishing wheat hybrid testing in India, Pakistan and the United Kingdom utilizing an innovative, non-Genetically Modified Organisms, non-chemically based, hybrid system. The United Kingdom's leading seed company for wheat, is managing the project with the main aim of improving the food security for millions of people in South Asia.

- **Capacity building**

24. On top of all the projects described above, it is also very important to spread knowledge in developing countries. Most national, regional and international breeders associations are undertaking activities to raise awareness on the importance of conservation and sustainable use of genetic resources (via newsletters, workshops etc.).

25. Many seed companies are directly involved in such projects.

26. For instance in Indonesia, the Yayasan Bina Tani Sejahtera Foundation, created by two large seed companies, is aiming to share expertise and know-how to vegetable growers, especially in the remote parts of the lowlands with their difficult conditions.

27. In Ethiopia, several seed companies are engaged in capacity building via Fair Planet which is a non-profit organization whose mission is to increase food security and provide new economic opportunities for the millions stuck in poverty. Fair Planet on the one hand is facilitating access of smallholder farmers to seed of the highest-quality vegetable varieties suitable for their needs while at the same time it is training the farmers to use these seeds with minimal changes to their traditional production practices. Trained farmers will gain the opportunity to grow and sell significant crop yields and will benefit from economic growth. Fair Planet's operation model aims to reach more than 50 000 rural households in three countries within five years, thus helping over 360 000 people to leave the poverty cycle.

28. In Peru, a European potato company together with the International Potato Centre and other national partners started to implement to work on a novel model to practically implement benefit sharing with custodian farmers. They created an association which helps 43 farmers to get organized and to get benefice in order to improve their agricultural inputs and healthcare.

29. As mentioned above, the present report represents only a few examples of the activities the actors of the seed industry are engaged in, the wide and growing collection of projects is available at: <https://www.euroseeds.eu/voluntary-benefit-sharing-activities-european-seed-industry>.

30. For more information, contact the ISF Secretariat at h.guillot@worldseed.org or the ESA Secretariat at szonjacsorgo@euroseeds.eu.