

The Use of the SMTA by the USDA:

Persistent Loopholes in the Implementation of the ITPGRFA



Swiss Foundation
for Cultural and
Genetic Diversity of
Plants and Animals

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Summary

This report analyzes the current application of the Standard Material Transfer Agreement (SMTA) under the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) by the United States Department of Agriculture (USDA). Building on a 2011 study that criticized the large-scale distribution of sorghum germplasm outside the Multilateral System (MLS), the report assesses how the situation has evolved since the United States ratified the Treaty in 2016. Recent data indicate that, despite formal adherence to the Treaty, significant loopholes persist in the implementation of SMTA procedures.

Since 2024, the USDA has required the use of SMTAs for international (non-U.S.) users; however, domestic transfers within the United States remain exempt. Furthermore, a new provision introduced in 2025 excludes “non-propagative” materials—such as DNA samples, leaves, or herbarium specimens—from SMTA requirements, even though such materials contain functional units of heredity and thus fall under the Treaty’s definition of plant genetic resources.

Data from the USDA demonstrates that a considerable share of USDA germplasm distributions—ranging from 20% to over 50% in key crops such as sorghum and soybean—goes to commercial entities. Due to the USDA policy on the distribution of plant genetic resources, in most cases this is done without the acceptance of an SMTA. This practice disproportionately favours the seed industry by exempting it from all the obligations for recipients foreseen in the SMTA, such as benefit-sharing and patent restrictions. This undermines the equity and purpose of the Multilateral System.

The report concludes that the U.S. interpretation and implementation of the Treaty create a systemic loophole that weakens global compliance and fair access. It calls for explicit clarification within the ongoing Treaty revision process that all transfers—both domestic and international—must be governed by SMTAs, thereby restoring the integrity, reciprocity, and legal coherence of the Multilateral System.

Introduction

Over 14 years ago, in March 2011, the NGOs Berne Declaration (now Public Eye, Switzerland), Development Fund (Norway) and the African Centre for Biosafety (now African Centre for Biodiversity, South Africa) published a report entitled ‘How US sorghum seed distributions undermine the FAO Plant Treaty’s Multilateral System’¹. The summary of the report was as follows:

“New data from ICRISAT and the US Department of Agriculture and a comparison of genebank records indicates that half or more of ICRISAT’s sorghum genebank collection is also being distributed outside of the Multilateral System. This yawning gap creates an economic incentive for the Multilateral System and its benefit sharing requirements to be avoided. USDA’s sorghum germplasm customers, who are primarily corporate and commercially oriented academic breeders, are taking advantage of this perverse incentive. In the past six years, they have ordered four times more ICRISAT genebank seeds from USDA than from ICRISAT itself. Globally, it is likely that more distributions of

Multilateral System sorghum take place without an SMTA than occur with one.

Recipients of large USDA distributions of sorghum are not obligated to share benefits and do not comply with the restrictions of the SMTA on patenting parts of the material. Under present circumstances, the promise of the Multilateral System cannot be fulfilled for sorghum, a crop of global food security importance, particularly in Africa. Further, even if the US ratifies the ITPGRFA, a vexing problem has been created by USDA’s recent massive distributions of Multilateral System sorghum germplasm to institutions potentially not bound by the Treaty’s provisions, such as Texas A&M University.”

The USA ratified the FAO Treaty on 13 December 2016 (entry into force: 13 March 2017). This report will examine how the situation has changed since then. How are plant genetic resources distributed today? How is the SMTA of the Treaty being used? What does this mean for the seed industry and other users? What conclusions can we draw from this?



¹ Edward Hammond, March 2011, How US Sorghum Seed Distributions Undermine the FAO Plant Treaty’s Multilateral System. A briefing paper by the Berne Declaration, the Development Fund and the African Center for Biosafety

Current figures on the distribution of plant genetic resources by the USDA

Sorghum

The figures from the study mentioned above (Hammond 2011) were as follows:

Chart 4

Utilization of the USDA Sorghum Collection by Year and Requester Type⁸

Year	Academic	Companies	US Government	Other
2005	863	286	643	247
2006	568	235	884	301
2007	4302	3191	2872	174
2008	7825	2321	3255	488
2009	9648	4948	1862	1003
2010	5452	5328	1546	756
TOTAL	28658	16309	11062	2969

New Distribution figures are available from the recently published report ‘USDA National Plant Germplasm System – Sorghum Collection Ten Year Snapshot – 2015 to 2024’²

Annual number of accessions distributed domestically for the years 2015 through 2024.

Category	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
U.S. state agencies and all universities	10411	4521	6156	3916	5907	2985	4386	3553	6749	3417
Agricultural Research Service	1547	2587	2212	1364	1885	997	1945	433	794	408
U.S. commercial company	1404	5199	4156	770	724	3242	394	2089	1310	5017
U.S. federal agency (not AID or ARS)	0	15	0	0	1	0	103	0	1	0
U.S. individual no affiliation	55	69	82	154	881	1183	20	30	324	367
U.S. non-profit organizations	22	8364	328	2076	1991	152	1673	2147	2095	8
TOTAL	13439	20755	12934	8280	11389	8559	8521	8252	11273	9217

Annual number of accessions distributed internationally for the years 2015 through 2024.

Category	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Foreign commercial company	1252	565	69	316	741	232	1967	642	609	1271
Foreign genebank/genetic resources unit	0	1	60	291	8	1	5	67	0	3
Foreign individual no affiliation	5	0	217	73	274	375	0	0	0	0
Foreign non-commercial organization	202	2032	1364	2474	552	69	5189	303	4466	1196
CGIAR International Agricultural Research Center	0	140	0	0	0	0	0	0	0	0
TOTAL	1459	2738	1710	3154	1575	677	7161	1012	5075	2470

To make these statistics easier to interpret, we have summarized them as follows:

	Total accessions	Domestic and Foreign Companies	Foreign (all categories)
2006–2010 (5 years)	56’959	16’023 (28%)	–
2015–2019 (5 years)	77’433	15’196 (20%)	10’636 (14%)
2020–2024 (5 years)	62’217	16’773 (27%)	16’395 (26%)
2024 (last year)	11’687	6’288 (54%)	2470 (21%)

Distribution of sorghum accessions in 5-year periods and in the last reporting year by the USDA

² USDA National Plant Germplasm System - Sorghum Collection Ten Year Snapshot- 2015 to 2024; [2025USDA_Sorghum_TenYearSnapshot-2015to2024.pdf](#)

Soybean

The USDA National Soybean Germplasm Collection’s mission is to be the most diverse and well-documented soybean germplasm collection in the world. The statistics available for soybean are not as detailed as they are for sorghum and are taken from the reports by species available at the USDA’s Crop Germplasm Committee website³ and from the 2024 USDA Soybean Germplasm Collection Annual Report⁴.

	Total items	Domestic and Foreign Commercial	Foreign Commercial and Non-commercial
2019	16’600	3’320 (20%)	1’826 (11%)
2020	15’628	3’281 (21%)	1’250 (8%)
2024 (last year)	23’676	8’262 (35%)	3’282 (14%)

Distribution of soybean items in selected years by the USDA
Note: “items” are synonymous with “seed lots” which are individual “packets” of individual accessions

Maize

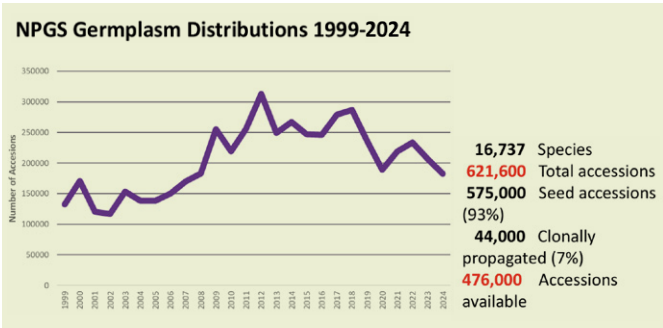
For Maize, we were able to obtain the 2025 ‘Curation Report to the Maize CGC’⁵. The figures do not disclose the distribution of germplasm to companies.

Year	2018	2019	2020	2021	2022	2023	2024
Total Items Distributed	26’000	17’000	14’000	18’000	18’000	15’000	12’000
USA	16’000	12’000	9’000	10’500	13’000	9’000	7’000
Foreign	10’000 (38%)	5’000 (29%)	5’000 (36%)	7’500 (42%)	5’000 (28%)	6’000 (40%)	5’000 42%)

Distribution of maize accessions in selected years by the USDA

Total transfers across all species

Across the entire National Plant Germplasm System following figures have been published⁶. A total of approximately 180,000 accessions were distributed in 2024 (approximation taken from the graphic). But only 26’549 samples (15%) have been sent to foreign users (153’451 to domestic users).



Compared to the approximately 400,000 accessions⁷ distributed globally every year under the multilateral system with an SMTA, the US figures are quite high. Assuming that domestic transfers in the USA are conducted without an SMTA (see below), and adding these transfers and the transfers to foreign users to the 400’000 accessions distributed with an SMTA annually, at least 28% of the distributed accessions in the multilateral system have been transferred without an SMTA by the US. And from the crops for which we have specific data (sorghum and soybean), we know that between 20 and 28% go to companies. Last year, the figure was as high as 54% for sorghum and 35% for soybean.

³ www.ars.grin.gov/CGC
⁴ www.ars-grin.gov/documents/cgc/briefings/2024%20Soybean%20Curator%20Report.pdf
⁵ Curation Report to the Maize CGC; USDA-ARS; March 5, 2025. Received by correspondence, not publicly available.
⁶ Annual CGC Chair Briefings 2025; THE NATIONAL PLANT GERmplasm SYSTEM (NPGS) Neha Kothari, Ph.D. National Program Leader; [2025 CGC Chairs Briefing.pdf](#)
⁷ This is a rough estimate based on the fact that approximately 7,000,000 accessions have been distributed with an SMTA over the course of 18 years.

How the SMTA is (not) used today by the USDA

The wording of the Treaty

With regard to the facilitated access to plant genetic resources for food and agriculture within the framework of the Multilateral System, and the use of the Standard Material Transfer Agreement (SMTA), the text of the ITPGRFA states the following:

12.2 The Contracting Parties agree to take the necessary legal or other appropriate measures to provide such access to other Contracting Parties through the Multilateral System. To this effect, such access shall also be provided to legal and natural persons under the jurisdiction of any Contracting Party. [...]

12.4 To this effect, facilitated access, in accordance with Articles 12.2 and 12.3 above, shall be provided pursuant to a standard material transfer agreement (MTA), [...]

In the ‘Explanatory Guide to the International Treaty on Plant Genetic Resources for Food and Agriculture’⁸ Gerald Moore and Witold Tymowski interpret the article 12.2 as follows:

“Normally international treaties govern relations between Contracting Parties and do not create rights and obligations as between Contracting Parties and their own nationals, unless the particular treaty so expressly states. In this case, the wording of Article 12.2 requires facilitated access to be provided to legal and natural persons under the jurisdiction of “any” Contracting Party, (i.e. including legal and natural persons under the jurisdiction of the Contracting Party providing access) and does not limit the rights of access to legal and natural persons under the jurisdiction of “any other” Contracting Party. Under the Vienna Convention on the Law of Treaties, treaties are to be interpreted “in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.” Quite apart from the

literal meaning of Article 12.2, it could well be argued, in this particular case, that to interpret domestic access transactions as being outside the coverage of the Multilateral System would create a “loophole” in the Treaty that would defeat the objectives of the Treaty as set out in Article 1. If recipients of PGRFA were able to demand access to Annex I materials from their own national genebanks outside the framework of the Treaty and then export those materials to other companies, or their own subsidiaries, in other jurisdictions free of all obligations under the Multilateral System, then the whole Multilateral System would soon become unworkable.” (Highlights from the original)

And on Art. 12.4:

“It is clear from the wording of Article 12.4 that all transfers of PGRFA under the Multilateral System between Contracting Parties or entities within the jurisdiction of Contracting Parties must be pursuant to the standard Material transfer Agreement.”

Virtually all contracting states have interpreted the treaty in this sense and now use the SMTA for both domestic transfers and transfers abroad. But this is not the case in the USA.

The process of ratification in the US

When considering ratification of the ITPGRFA in 2008, the USA had already adopted its anomalous interpretation of its obligations regarding the SMTA. In the Message to the U.S. Senate on July 7, 2008, President George W. Bush stated that:

“The Multilateral System does not cover transfers of domestic PGRFA to domestic entities (e.g., from USDA to a legal or natural person under the jurisdiction of the United States), unless the PGRFA was obtained from the Multilateral System.”

⁸ Published by the IUCN, 3 December 2005; <https://iucn.org/content/explanatory-guide-international-treaty-plant-genetic-resources-food-and-agriculture>

This view was confirmed during subsequent congressional deliberations. In a Report to the Senate Committee on Foreign Relations on December 15, 2010, Secretary of State John Kerry, assured his colleagues that

“[The] multilateral system [...] applies only to international transfers of PGRFA (e.g. between two Parties to the treaty or a party and a private entity within another party). It is not applicable to transfer of PGRFA of a purely domestic nature.”

The US Senate would not ratify the ITPGRFA for another six years, but when it did a Report⁹ to the Senate by Senator Robert Corker, Chair of the Committee on Foreign Relations maintained the US position that it would follow its own path on use of the SMTA. The US Senate finally ratified¹⁰ the ITPGRFA on ¹¹ 13 December 2016 and that policy has persisted unchanged.

Implementation by the USDA

When the USDA notified the Secretary of the International Treaty of the plant genetic resources available for inclusion in the Multilateral System, the notification¹² referred to material listed in Annex 1 of the Multilateral System, including PGRFA that are within the public domain and under management and control of the U.S. Department of Agriculture’s Agricultural Research Service (USDA/ARS) National Plant Germplasm System (NPGS). A list of NPGS USDA genebanks was attached to the letter. The notification also stated that:

“Plant germplasm held within the NPGS, excepting materials that are not within the public domain or not under the management and control of the USDA, will be made available to foreign requestors under the terms of the Treaty’s Standard Material Transfer Agreement”.

The Country Report on the implementation of the (ITPGRFA) by the United States of America for the first project cycle¹³ revealed that as of February 2018 the NPGS had transferred 4,287 samples, representing 409 separate orders, with the SMTA attached. Presumably, those accessions were of germplasm that had been acquired from MLS institutions with the SMTA. Unfortunately, the US has not yet submitted its report for the second reporting cycle,

which was due on 1 October 2023¹⁴. Data on how many distributions of what species, to whom, with or without the SMTA, through the USDA’s Germplasm Resources Information Network (GRIN) system over the last seven years since that initial 2018 report are therefore unavailable. That information is not publicly listed, and our requests for the data have gone unfulfilled. In the absence of hard data, we have nevertheless identified a number of public documents that provide insight into the operation of US policy on access to GRIN materials. In the 2024 USDA Soybean Germplasm Collection Annual Report¹⁵ we noticed the following:

“Beginning January 1, 2024, the U.S. National Plant Germplasm System (NPGS) will distribute all germplasm to international requestors (outside the U.S. states and territories) with the Standard Material Transfer Agreement (SMTA) of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA).”

That the US is initiating use of the SMTA even for soybeans, a non-Annex 1 crop for which use of the SMTA is not mandatory seemed laudable. But the word “beginning” caught our attention. Indeed, when we looked at the 2025 ‘Curation Report to the Maize CGC,’¹⁶ we found what appears to be evidence that the requirement to attach the SMTA is just now coming into effect even for maize, which is an Annex 1 crop. This Curation Report, not now available publicly, states:

“The International Treaty on Plant Genetic Resources for Food and Agriculture (IPTGRFA) Standard Material Transfer Agreement (SMTA) went into effect for all maize accessions in the collection on January 1, 2024. This means that foreign requestors have to acknowledge that they will adhere to the recipient responsibilities mentioned in the SMTA. *This has not significantly reduced foreign requests for maize germplasm.*” [The italics in the last sentence are in the original].

It seems that the policy to use the SMTA for distributions outside the USA for maize only went into effect on January 1, 2024, a full eight years after ratification of the ITPGRFA. Might it be the case that the USA has not been attaching the SMTA to other Annex 1 crops?

Indirect but persuasive evidence that this omission has indeed been default US policy is contained in an ap-

⁹ Report by Mr. Corker from the Committee on Foreign Relations (13 September 2016), online at [Ex. Rept. 114-11 - INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE](https://www.congress.gov/114-11-INTernationalTreatyOnPlantGeneticResourcesForFoodAndAgriculture) | [Congress.gov](https://www.congress.gov/) | [Library of Congress](https://www.libraryofcongress.gov/)

¹⁰ Treaty Document 110-19 - Treaty on Plant Genetic Resources for Food and Agriculture | [Congress.gov](https://www.congress.gov/) | [Library of Congress](https://www.libraryofcongress.gov/)

¹¹ See Treaty Website: <https://www.fao.org/plant-treaty/countries/contracting-parties/detail/USA/en>

¹² Notification by the USDA, 25 October 2017. http://www.fao.org/fileadmin/user_upload/faoweb/plant-treaty/notifications/BU012e.pdf

¹³ Country Report on the implementation of the (ITPGRF) by the United States of America for the first project cycle, October 19, 2018; See www.fao.org/3/CA2599EN/ca2599en.pdf

¹⁴ See Report of the Compliance Committee to the eighth session of the Governing Body, 2019; para 27; www.fao.org/3/na412en/na412en.pdf

¹⁵ 2024 -Soybean Curator Report.pdf (page 5)

¹⁶ Curation Report to the Maize CGC; USDA-ARS; March 5, 2025. Received by correspondence, not publicly available.

appropriately named USDA document 'SMTA Read Me Final'¹⁷ published on December 30, 2024. The document outlines frequently asked questions relating to a change in this policy:

"Beginning on or about January 1, 2024, the U.S. National Plant Germplasm System (NPGS) will distribute all germplasm to international requestors (outside the U.S. states and territories) with the Standard Material Transfer Agreement (SMTA) of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)."

The paper specifies that this policy will apply to all crops:

"The distribution of all NPGS accessions of all taxa will require acceptance of the SMTA by all international (non-U.S.) requestors."

The paper also makes it clear that US policy does not change in regard to the long-standing practice of not requiring the SMTA for any accession acquired before the 2017 ratification or without the SMTA for materials requested within the USA:

"Does this new procedure require accepting the SMTA for distributions within the U.S.? NPGS material shipped to U.S. state and territorial addresses will require SMTA acceptance only for accessions that the NPGS acquired with the SMTA. This is not new, and has been the procedure for several years."

Further:

"I am a U.S.-based researcher but want my order shipped to a research site outside the U.S. Will SMTA acceptance be required? Yes. The shipping destination alone will determine whether SMTA acceptance is required. Any shipping destination other than U.S. states and territories will require SMTA acceptance."

So, it appears that the shipping destination alone will determine whether SMTA acceptance is required. Can it truly be that the only criteria needed to obtain MLS germplasm unencumbered by the SMTA is to have it sent to a US address - no matter who you are or who you work for?

Still further, the requirement introduced in 2024 that the SMTA should at least be used for foreign requests might already be circumvented by a new loophole being introduced in the 2025 document. Again, we quote the Read Me memo¹⁸:

"What is changing on January 1, 2025? The sole change is that SMTA acceptance will be required for distribu-

tions of only propagative germplasm to international (outside the U.S. states and territories) requestors.

Distributions of non-propagative material will no longer require acceptance of the SMTA for either international or domestic (U.S. states and territories) orders irrespective of the SMTA status when the NPGS began curating the material. Concisely, the modification is that SMTA acceptance will never be required to receive non-propagative germplasm..."

"The NPGS defines the following germplasm forms as non-propagative: Cane, DNA sample, Herbarium specimen, Information only, Leaves, Maternal flowers, Primers, RNA Sample, Entire female Inflorescence."

This is an extremely surprising, anomalous, and – we believe – inaccurate interpretation of the ITPGRFA. The text of the Treaty is quite clear about what should be part of the multilateral system. Article 11.1 of the ITPGRFA on the Coverage of the Multilateral System states that "[... the Multilateral System shall cover the plant genetic resources for food and agriculture listed in Annex I, [...]. And in Art. 2 on the Use of Terms "Plant genetic resources for food and agriculture" are defined as "any genetic material of plant origin of actual or potential value for food and agriculture". And: "Genetic material" is defined as "any material of plant origin, including reproductive and vegetative propagating material, containing functional units of heredity" (emphasis added).

There is no question that most of the examples mentioned (Cane, DNA sample, Herbarium specimen, Leaves, Maternal flowers, RNA Sample, Entire female Inflorescence." do contain functional units of heredity and therefore are part of the multilateral system and should be transferred with an SMTA. And the fact that the USDA never requires an SMTA for non-propagative material further exacerbates the problem. This means that if they receive seed with an SMTA, they can grow it and pass on the leaves or flowers (containing functional units of heredity) without an SMTA. In this way, the system acts like a money laundering machine. Material with an SMTA comes in at the front – and goes out without an SMTA at the back.

To summarize: for years, the USA appears to have granted access to the multilateral system (the USDA collections) without requiring the acceptance of an SMTA (except when they themselves received the material with an SMTA). Today, they still do not use SMTAs when sending material to recipients in the US. And even when sending material abroad, they still do not use SMTAs for non-propagative material, even if the material is a plant genetic resource within the meaning of the Treaty.

¹⁷ "SMTA_Read_Me_Final" available at https://npgsweb.ars-grin.gov/gringlobal/documents/SMTA_Read_Me_Final.pdf

¹⁸ *ibid*

Who benefits from the loopholes?

Anyone who has access to material from the multilateral system without signing an SMTA benefits from this loophole. These free riders can circumvent the obligations set out in the SMTA, e.g. paying benefit sharing, not filing patents that restrict access to gene bank material, or the obligation to only pass on material with the SMTA. The big winners here are the seed industry. They would be the ones who would have to pay for benefit-sharing under certain circumstances. They are also the ones who file patents that conflict with the SMTA's obligations.

The industry is now also exploiting this loophole to claim that its interest in the material covered by the Multilateral System is minimal, as they have only signed few SMTAs, and that it is therefore unwilling to pay for genuine benefit sharing. In a statement¹⁹ from the International Seed Federation to the working group to Enhance the Functioning of the Multilateral System (OWG-EFMLS) of the Treaty they wrote:

“... we wish to communicate some information on the actual use of the Treaty's MLS by seed companies. Representatives within ISF surveyed 16 seed companies (vegetable and field crops) that account for over 60% of global seed sales. In total, less than 1,400 SMTA's have been signed in the past 18 years by the surveyed enterprises and interestingly, over 50% of the SMTA's were for non-Annex 1 crops (primarily vegetables)”

The truth is that commercial companies make extensive use of the multilateral system via the USDA, but they do so without signing SMTAs. In the 15 years for which data is at our disposal, they have received 47,992 sorghum accessions. Due to the permissive USDA policy described above, the vast majority of these accessions were probably obtained without an SMTA. In the case of soybeans, companies received 8262 accessions from the USDA last year alone, apparently without an SMTA.

Of course, the current implementation of the Treaty has a significant impact on ongoing negotiations to establish a functioning benefit-sharing system within its framework. After all, why should companies pay to use the global gene pool in gene banks when they already have access to one of the world's largest collections with no obligation to share the benefits? Why pay for something when you can get it elsewhere for free and without any obligations?

The following example illustrates just how unfair the current situation is. As we explained in our first report on sorghum (see introduction), a large part of the CGIAR collection is duplicated in USDA gene banks. If an African breeder, perhaps even one from the country of origin of a particular sorghum accession at ICRISAT, wants to obtain this accession from ICRISAT or the US GRIN system, they will have to sign an SMTA and will therefore be subject to various obligations when using this accession. However, if an international seed company based in the USA (all large seed companies have a branch in the USA (and therefore have the requisite US shipping address) wants access to the very same resource, which can also be found in the USDA collection, it can obtain it without an attached SMTA and thereby evades the SMTA's obligations.

This is not just a matter of benefit sharing, but also of patents on native traits, which are prohibited for signatories to the SMTA²⁰. This is clearly outlined in the 'Patent Landscape Report on Inventions Based on Plant Genetic Resources for Food and Agriculture (PGRFA) and Related Digital Sequence Information/Genetic Sequence Data (DSI/GSD)'²¹, published by the CGIAR Genebank Accelerator which states that:

“Patents with the potential to limit the use of the PGRFA on which an invention is based are usually patents involving so called “native traits”, i.e., naturally occurring characteristics observable in existing plants. [...]”

¹⁹ ISF Statement on the Co-Chairs' proposal for a draft revised SMTA as in Treaty document IT/OWG-EFMLS-13/25/4.1.; footnote on page 2; 28. February 2025; See <http://www.fao.org/3/cd4747en/cd4747en.pdf>

²⁰ Art. 6.2 of the SMTA: The Recipient shall not claim any intellectual property or other rights that limit the facilitated access to the Material provided under this Agreement, or its genetic parts or components, in the form received from the Multilateral System.

²¹ The final version of the report was published in July 2025 and is available at the FAO Website: <https://www.fao.org/3/cd6829en/cd6829en.pdf>

If we now return to our sorghum example above, the following scenario is possible: The international seed company, which, due to its shipping address in the USA, did not have to sign an SMTA to gain access to the accession in the USDA gene bank, is logically not bound by the SMTA and can apply for patents on native traits without breaching the contract. The African breeder, who is bound by the SMTA due to their access via the ICRISAT gene bank, cannot do

this. However, they might be restricted by the seed company's patent when using the accession. This is because if they breed with this accession and the patented trait is still present in his final variety, they will not be able to sell the variety in markets where the patent is valid without the consent of the patent holder. In this way, the loophole in the US also reduces free access to this accession in genebanks outside the US.

Is the approach taken by the USA unique?

The question arises as to whether other countries also refuse to use the SMTA for the transfer of material from the Multilateral System. This question should have been answered in the Report on Implementation and Operations of the Multilateral System for the 11th Governing Body of the Treaty. Resolution 2/2022²² of the 9th Governing Body clearly stated that the report should also include information on the use of SMTA for both foreign and domestic transfers of material. Unfortunately, this information is missing from the report²³ now being presented to the 11th Governing Body.

What we do know is that India also permits domestic public and private entities to access its plant genetic resources without an SMTA. But the contrast with US policy is significant. Unlike in the USA, where domestic users do not sign any contract, India has the 'Material Transfer Agreement for Research Use within Country for Public and Private Entities'²⁴. This agreement reflects the principles of the SMTA of the Treaty. There is an obligation to share benefits, as well as an obligation not to claim any intellectual property or other rights on the material provided and associated information under this agreement "in the form received".

²² Resolution 02/2022 - Implementation and Operations of the Multilateral System of Access and Benefit-sharing. See <https://www.fao.org/3/nk237en/nk237en.pdf>

²³ Report on Implementation and Operations of the Multilateral System. See <https://www.fao.org/3/ns530en/ns530en.pdf>

²⁴ See <https://nbpgr.org.in/nbpgr2023/mta-for-domestic-use/>

Conclusion – proposals

This report shows that the USDA's non-use of the SMTA for domestic and, probably in many cases foreign users, represents a huge loophole in the multilateral system. As the USA is home to one of the most significant collections in the multilateral system, the impact is particularly significant. USDA policy gives a unique advantage to seed companies since it exempts them from obligations that should be incurred when using genetic resources obtained from the system. This is in stark contrast to users who obtain genetic resources from the multilateral system in other countries or from CGIAR genebanks. So what Gerald Moore, Legal Counsel of the FAO from 1988 to 2000, predicted 20 years ago is precisely what is happening now: “to interpret domestic access transactions as being outside the coverage of the Multilateral System would create a “loophole” in the Treaty that would defeat the objectives of the Treaty as set out in Article 1”.

What are possible courses of action to respond to this asymmetrical and inequitable state of affairs? The Treaty's options for forcing a Member State to change its policy via the compliance mechanism are very limited. It seems more promising to insist in the current negotiations that, at least when implementing a revised Treaty which must be ratified anew by the Member States, use of the SMTA must explicitly required of all users. For example, the following text could be included in a Resolution: “Reaffirms Art. 12.4 of the Treaty, which states that facilitated access shall be provided pursuant to a standard material transfer agreement (MTA) and clarifies that this must be done for both domestic and foreign users.” This text was supported by many delegates in an earlier meeting of the working group but was significantly weakened by the co-chairs in their latest proposal: “18. Invites Contracting Parties to provide facilitated access to PGRFA pursuant to the Revised SMTA both to recipients based in their territories and recipients based in other countries.” It is to be hoped that this wording will be revisited in the final round of negotiations.

Another possibility is that the seed industry accepts the subscription system proposed in the draft SMTA currently under negotiation. As subscribers, they would pay benefit-sharing based on all their seed sales, even if they occasionally obtain material from the USDA without an SMTA. However, the fact that restrictions on patents for

native traits cannot be enforced for material obtained without an SMTA remains a flaw.

Finally, the implications and legitimacy of the US policy of distinguishing between propagative and non-propagative material and exempting the latter from transfer with the SMTA must be highlighted and interrogated. This procedure has no basis in the text of the ITPGRFA and amending it would prevent further injustice.

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ProSpecieRara was founded in 1982 as a Swiss non-profit foundation to protect endangered crops and livestock from extinction. Today we are committed to the conservation and sustainable use of 1600 garden and agricultural plants, 400 berry varieties, 2500 fruit varieties, 1000 ornamental plant varieties and 38 farm animal breeds.

We advocate for political conditions in Switzerland, Europe and around the world that encourage diversity in agriculture and uphold the principles of the FAO Seed Treaty.



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