

Standard Material Transfer Agreement

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Summary

This Briefing Paper examines the Standard Material Transfer Agreement ('sMTA') and the *International Treaty on Plant Genetic Resources for Food and Agriculture* ('Plant Treaty'). More specifically the Paper provides an overview of the sMTA and addresses some of the issues associated with the sMTA, particularly those related to plant breeders, scientists and the CGIAR. In so doing it identifies and discusses numerous issues including:

- obligations imposed by the sMTA on Providers and Recipients of plant genetic material;
- potential effects of the sMTA on plant breeders and scientists;
- restrictions that Centers can place on material 'under Development';
- whether Centers need to use the sMTA when making material available to farmers; and
- possible effects of the Nagoya Protocol on the use of the sMTA.

Introduction

The *Plant Treaty* entered into force in 2004, and has, among its objectives:

...the conservation and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising out of their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security.¹

The *Plant Treaty* created a Multilateral System ('MLS') of access and benefit sharing.² Broadly speaking, the MLS deals with issues of food sovereignty, sovereign rights over plant genetic resources for food and agriculture ('PGRFA') and intellectual property law.³

It includes 'all plant genetic resources for food and agriculture listed in Annex I that are under the management and control of the Contracting Parties and in the public domain' (that is, free from

intellectual or other property rights that limit access).⁴ Significantly, the 64 crops and forages listed in Annex I provide approximately 80 per cent of our food from plants.⁵ In addition to pooling plant genetic resources, members of the MLS agree to share non-confidential information and the benefits that arise from the use of the included plant genetic resources.

Currently, there are 139 Contracting Parties to the *Plant Treaty*.⁶ Importantly, all other holders of PGRFA—including those in international gene banks of the International Agricultural Research Centers (IARCs) of the CGIAR—that are listed in Annex I are invited to include those genetic resources in the MLS.⁷

CGIAR is central to the MLS. Even before the introduction of the *Plant Treaty*'s MLS, CGIAR Research Centers were sharing plant genetic resources. The CGIAR, and its Centers, aim to facilitate access to plant genetic material so that it is available for research, breeding and training for food and agriculture. Article 1 of the *IA Principles* states that:

The CGIAR regards the results of its research and development activities as international public goods and is committed to their widespread diffusion and use to achieve the maximum possible access, scale, scope of impact and sharing of benefits to advantage the poor, especially farmers in developing countries.

What is the sMTA? What obligations does it impose?

The MLS is designed to facilitate the exchange of PGRFA, while at the same time ensuring the appropriate sharing of benefits that arise from their use. Contracting Parties to the *Plant Treaty* agree to facilitate access to the PGRFA included in the MLS for other Contracting Parties and for legal and

¹ *Plant Treaty*, art 1.1.

² *Plant Treaty*, art 10.2.

³ See, Manzella, 'Nuts and Bolts of the MLS' (2014).

⁴ *Plant Treaty*, art 11.2.

⁵ See, www.planttreaty.org/mls_en.htm.

⁶ See, www.planttreaty.org/list_of_countries.

⁷ *Plant Treaty*, art 11(5).



Consortium



natural persons under their jurisdiction. In particular, article 12(3)(a) provides that:

Access shall be provided solely for the purpose of utilization and conservation for research, breeding and training for food and agriculture, provided that such purpose does not include chemical, pharmaceutical and/or other non-food/feed industrial uses.

Access to PGRFA is facilitated through the use of a standard material transfer agreement (sMTA).⁸ The benefits of the sMTA include quick access to PGRFA and ensuring that access is made possible under transparent, harmonised terms and conditions.

The text of the sMTA was negotiated over the period of two years, and was adopted by the *Plant Treaty's* Governing Body on 16 June 2006.⁹ From January 2007 to December 2010, it has been estimated that approximately 1,222,000 samples of accessions of PGRFA have been transferred using the sMTA.¹⁰ Approximately 95 per cent of these samples were transferred by CGIAR Research Centers, and around 85 per cent were sent to developing countries.¹¹ Since 2007, the CGIAR Centers have been distributing PGRFA listed in Annex I under the sMTA. Centers are also authorised to distribute non-Annex I plant genetic resources using the sMTA.¹²

The sMTA is a standard contract that establishes the terms and conditions under which PGRFA are transferred from one organisation or person ('the Provider') to another ('the Recipient') under the MLS. The terms of the sMTA cannot be amended or changed. However, the Governing Body of the *Plant Treaty* may re-negotiate the text of the sMTA.

The acceptance method should be agreed upon between the Provider and the Recipient. There are three kinds of sMTA. These are:

- (i) Signed: is the traditional way of doing things. The document is sent to the recipient for physical signature and the material is shipped when the signed document is received by the Provider.
- (ii) Shrink-wrap: is used when the document is shipped along with the material. By accepting the parcel, the recipient accepts the terms of the agreement. No signature is required.
- (iii) Click-wrap: in which the Provider prepares the document and makes it available to the recipient for acceptance by electronic means. The Recipient, using a tool function, accepts the SMTA on line, without any need for signing and mailing back the document. The system

registers and witnesses the acceptance of the agreement.

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| Genetic Material | any material of plant origin, including reproductive and vegetative propagating material, containing functional units of heredity (article 2) |
| PGRFA in the form received | Genetic Material, and 'available passport data and, subject to applicable law, any other associated, available, non-confidential descriptive information (clause 2 and Annex 1) |
| PGRFA under Development | material derived from the Material, and hence distinct from it, that is not yet ready for commercialization and which the developer intends to further develop or to transfer to another person or entity for further development. The period of development for the PGRFA under Development shall be deemed to have ceased when those resources are commercialized as a Product (article 2) |
| Product | PGRFA that incorporates the Material or any of its genetic parts or components that are ready for commercialization, excluding commodities and other products used for food, feed or processing (article 2) |

Table 1: Some useful definitions in the sMTA

The sMTA has a number of obligations for 'Providers' of PGRFA and 'Recipients' of PGRFA including:

Providers of material:

- Agree to transfer material;
- Agree to the terms of the sMTA;
- For material under development, can negotiate additional conditions;
- Confirms that the transfer is legally allowed;
- Identifies MLS ancestors of material under Development;
- Prepares the sMTA; and
- Prepares data, seeds and transfer.

In addition to supplying material, the Provider of the material agrees that '[a]ll available passport data and, subject to applicable law, any other associated available non-confidential descriptive information, shall be made available with the Plant Genetic Resources for Food and Agriculture provided'.¹³ This means that Providers of PGRFA need to provide basic data that identify and describe the PGRFA (such as accession identifier number, taxonomic descriptors and names) and non-confidential research and evaluation data.

Recipients of material:

- Agree to the terms of the sMTA;
- For material under development, can negotiate additional conditions;

⁸ *Plant Treaty*, art. 12(4).

⁹ Resolution 1/2006 of 16 June 2006. For a discussion of the negotiations see, Lim and Halewood (2008).

¹⁰ See, Lopez-Noriega, Wambugu and Mejías (2013).

¹¹ See, ITPGRA, (2011).

¹² See, www.planttreaty.org/content/agreements-concluded-under-article-15.

¹³ See, art 5(b) of the sMTA, and art 12.3(c) of the *Plant Treaty*.

- Confirms that material will be only used for research, breeding and training for food and agriculture; and
- Will not claim intellectual property or other rights that limit facilitated access to plant genetic resources, or to their genetic parts or components, in the form received from the MLS.

Plant breeders, scientists and the sMTA

By using plant material under a sMTA, plant breeders, as Recipients, have a number of obligations and agree to:

- use the material only for research, breeding and training for food and agriculture; and
- not claim intellectual property or other rights that limit facilitated access to the material (or its genetic parts and components) in the form received from the multilateral system.

If a plant breeder transfers the material to another person or entity, that transfer must also be subject to a sMTA, and the Governing Body must be notified of the transfer.¹⁴

In relation to obtaining intellectual property rights such as plant variety rights, article 6.2 of the sMTA states that: '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'.

This means that plant breeders or Centers may claim intellectual property rights on material or its genetic parts or components, as long as it is no longer in the form received. The effect of this is that plant breeders and Centers need to be familiar with plant variety rights and patent protection, as well as the benefit sharing obligations under the sMTA.

Plant variety rights

Plant breeders can claim plant variety rights if the plant variety is improved or modified meeting the criteria of novelty. Under plant variety rights schemes, subsequent plant breeding is not hindered because of the breeder's exemption. This means that plant variety rights, based on the UPOV Convention or *sui generis* schemes that incorporate a breeder's exemption, would not activate mandatory benefit sharing.

Patents

If plant breeders seek patent protection, mandatory benefit sharing may be necessary. While patent law gives the inventor the opportunity to 'exclude others from making, using or selling the invention' for a period of time, there are a number of exceptions and limits to the patent holder rights. Ultimately, it may

be these exceptions that determine whether mandatory benefit sharing is required.

One of the most important exceptions for those involved in agricultural research and development is the so-called research or experimental use exception. Understanding the research exception is necessary so that researchers and research managers can determine whether they can work freely with patented materials, whether permission is needed from the patent holder and whether a payment is required under the sMTA.

While research exceptions vary from country to country; there are two (2) main differences in the scope of the research exceptions:

- Is the research on or with the patented invention?
- Is the research carried out for commercial or non-commercial purposes?

The *with* or *on* distinction is an important one because when researchers can experiment *with* an invention without infringing a patent, they have greater access to research tools, techniques, and inputs. The difference between research *on* or *with* can be thought of as: (i) *on*: experiments or research that tests a hypothesis about the invention, or to develop and improve the invention; (ii) *with*: this formulation of the exception is wider, and allows using patented material or processes in an experiment not related to the subject matter of the invention. Furthermore, in some countries the research exemption applies only to research done for *non-commercial* purposes. In other countries, the research exception also applies to research done for *commercial* purposes.

In the United States, for example, while there is no research exception in the United States Patents Act, courts have established a narrow experimental use exception that is limited to 'amusement, to satisfy idle curiosity, or for strictly philosophical inquiry'.¹⁵ In Mexico, article 22(1) of Mexico's Industrial Property law sets out a research exception that applies to scientific or technological research purely for experimental or teaching purposes; that is private, academic and for non-commercial purposes.

Benefit Sharing Obligations

Plant breeders also need to be aware of the benefit sharing obligations in the sMTA. If a new crop variety that incorporates material accessed from the MLS is commercialized and the availability of the product for further research or breeding is restricted, then the recipient is required to pay 1.1% of the sales of the product less 30% (i.e., 0.77%) to the benefit-sharing fund of the multilateral system. If availability is not restricted, then the payment is voluntary (article 6.7 and Annex 2). Or, the recipient may opt for an alternative payment scheme (article 6.11 and Annex 3) or make a voluntary contribution to the Benefit Sharing Fund (article 18.4(f)). In 2015,

¹⁴ sMTA, art 6.4

¹⁵ *Madey v Duke University* 307 F.3d 1351 (Fed. Cir. 2002).

for example, the European Seed Association donated directly to the Benefit Sharing Fund of the Treaty.¹⁶

Can material be transferred without the sMTA?

Generally, the sMTA must always be used for transferring PGRFA under the MLS. There are, however, some exceptions to this rule:

- material transferred under a contract for service: For example, a transfer of genetic material for research or testing in a laboratory would not require a sMTA, as long as the research laboratory is not permitted to use the material for its own research or breeding purposes;
- material transferred for purposes other than research, breeding and training for food and agriculture;
- where the sMTA has exhausted and the materials are in the public domain; and
- where materials are placed in the Multilateral System with limitations (such as intellectual property claims) then those limitations must be passed on and might limit the sMTA.

What restrictions can CGIAR Centers place on material under Development?

For transfers of PGRFA 'under Development' additional terms and conditions may be appended to the sMTA by mutual agreement between the Provider and the Recipient, provided that they are not inconsistent with the sMTA. For example, the Provider and Recipient may agree on some form of monetary compensation. Access to PGRFA under development, including material being developed by farmers, shall be at the discretion of its developer, during the period of its development.¹⁷

Do CGIAR Centers need to make material available to farmers for direct use?

One of the key questions about the use of the sMTA has been whether, and in what circumstances, material can be made available to farmers. According to the Ad Hoc Technical Advisory Committee on the Standard Transfer Agreement and the Multilateral System there are two scenarios:

when PGRFA has been improved, and when it has not.¹⁸

Making improved PGRFA available to farmers for direct use

Contracting Parties can make improved material (that they have developed from material acquired from the MLS) available to farmers for direct use for cultivation. Indeed, making improved material widely available would seem to be one of the primary objectives of the MLS. In this case a sMTA is not required.¹⁹

Making PGRFA that have not been improved available to farmers for direct use

In determining whether CGIAR Centers can make available PGRFA that have not been improved available to farmers for direct use, the Ad Hoc Technical Advisory Committee on the Standard Transfer Agreement and the Multilateral System took into account the *Plant Treaty* and the Article 15 agreements signed by the CGIAR Centers with the Governing Body in which Centers are under an obligation to make Annex 1 PGRFA they hold 'available in accordance with the provisions set out in Part IV of the Treaty'.²⁰

The Ad Hoc Technical Advisory Committee concluded that the fact that Contracting Parties have agreed to grant facilitated access to certain PGRFA for certain purposes in no way limits the rights of those Contracting Parties to make that material available for other purposes, including for the purpose of direct use for cultivation.²¹ Under the normal rules of interpretation, any such limitation cannot be implied and would need to be expressly included in the *Plant Treaty*.

The Ad Hoc Technical Advisory Committee recommended that:

- a) It may be considered an accepted practice of the CGIAR Centers, not altering the integrity of the Multilateral System, and a right of Contracting Parties, to make improved material they have developed from material acquired from the MLS available to farmers for direct use.
- b) CGIAR Centers and other international institutions that have signed Article 15 agreements with the Governing Body may make unimproved material from their collections available to farmers for direct use with the following distinctions:
 - Material received under the sMTA can be made available to farmers for direct use only if there is a separate express permission

¹⁸ See,

www.planttreaty.org/sites/default/files/ac_smta_mls2_w5e.pdf.

¹⁹ www.planttreaty.org/sites/default/files/ac_smta_mls2_w7e.pdf.

²⁰ *Plant Treaty*, art 15.1(a). See,

www.planttreaty.org/content/agreements-concluded-under-article-15.

²¹ See, IT/AC-SMTA-MLS 1/10/Report, Appendix 7,

www.planttreaty.org/sites/default/files/ac_smta_mls1_repe.pdf.

¹⁶ See, www.euroseeds.eu.

¹⁷ sMTA, art 5(c).

from the provider allowing for such distribution.

- No such permission would be required where germplasm is being restored to farmers in the countries from which it was originally collected from in situ conditions.
- Material distributed for direct use should be transferred with a statement that the material can be used directly for cultivation. The following wording was suggested by the Ad Hoc Technical Advisory Committee: 'This material can be used in the form received by the recipient directly for cultivation'.²²
- Where material is transferred for both research and breeding and for direct use, or where it is unclear whether the transfer is for one or the other purposes, then both the sMTA and the statement giving express permission for direct use should be used, except of course in cases where the germplasm is being restored to farmers in the countries from which it was originally collected from in situ conditions.²³

Does the Nagoya Protocol change the Multilateral System?

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (the Protocol) is a global agreement that implements the access and benefit-sharing obligations of the Convention on Biological Diversity (CBD). The Protocol also covers traditional knowledge associated with genetic resources that are covered by the CBD and the benefits arising from its utilisation. It was adopted in Nagoya, Japan in October 2010, after six years of negotiations. The Nagoya Protocol entered into force on 12 October, 2014.²⁴

The Protocol's objective is the fair and equitable sharing of benefits arising from the use of genetic resources which contributes to the conservation and sustainable use of biodiversity, implementing the objectives of the CBD. The Protocol establishes a legally-binding frame-work that assists researchers to access genetic resources in return for a fair share of any benefits from their use. The Protocol applies when genetic resources are accessed and 'used'.

Most notably, in the context of the Multilateral System, the Protocol may not apply to genetic resources covered by specialised access and benefit-sharing agreements such as the *Plant Treaty*. Article 4 of the Nagoya Protocol is the key to

understanding the relationship between the Nagoya Protocol and other legal instruments, including the *Plant Treaty*. While earlier drafts of the Nagoya Protocol referred explicitly to the *Plant Treaty* this was removed from the final text.²⁵ Article 4 of the Protocol states:

1. The provisions of this Protocol shall not affect the rights and obligations of any Party deriving from any existing international agreement, except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity. This paragraph is not intended to create a hierarchy between this Protocol and other international instruments.
2. Nothing in this Protocol shall prevent the Parties from developing and implementing other relevant international agreements, including other specialized access and benefit-sharing agreements, provided that they are supportive of and do not run counter to the objectives of the Convention and this Protocol.
3. This Protocol shall be implemented in a mutually supportive manner with other international instruments relevant to this Protocol. Due regard should be paid to useful and relevant ongoing work or practices under such international instruments and relevant international organizations, provided that they are supportive of and do not run counter to the objectives of the Convention and this Protocol.
4. This Protocol is the instrument for the implementation of the access and benefit-sharing provisions of the Convention. Where a specialized international access and benefit-sharing instrument applies that is consistent with, and does not run counter to the objectives of the Convention and this Protocol, this Protocol does not apply for the Party or Parties to the specialized instrument in respect of the specific genetic resource covered by and for the purpose of the specialized instrument.

In regard to the sMTA, article 4 of the Nagoya Protocol can be interpreted in different ways. On the one hand, if a country or organisation is not a party to the *Plant Treaty*, then the Nagoya Protocol will apply to all genetic resource transactions. On the other hand, if a country or organisation is a party to the *Plant Treaty* and the CBD the need for a sMTA will depend on the interpretation of the Nagoya Protocol. One reading of Article 4 of the Nagoya Protocol is that because the *Plant Treaty* provides for a specialised international access and benefit sharing instrument in the sense of Article 4(4) of the Protocol and it prevails over the Protocol. Furthermore, the possible expansion of Annex I of

²² See, IT/AC-SMTA-MLS 2/10/7 (p. 4), www.planttreaty.org/sites/default/files/ac_smta_mls2_w7e.pdf.

²³ See, IT/AC-SMTA-MLS 2/10/7, www.planttreaty.org/sites/default/files/ac_smta_mls2_w7e.pdf.

²⁴ A full list of signatories and ratifications is available at www.cbd.int/abs/nagoya-protocol/signatories/.

²⁵ See Jorge Cabrera Medaglia, Morten Walløe Tvedt, Frederic Perron-Welch, Ane Jørem and Freedom-Kai Phillips, *The Interface between the Nagoya Protocol on ABS and the ITPGRFA at the International Level: Potential Issues for Consideration in Supporting Mutually Supportive Implementation at the National Level*, Lysaker, Fridtjof Nansens Institutt, FNI Report 1 (2013).

the *Plant Treaty* may qualify as relevant ongoing work or practices under other international instruments, in terms of Article 4(3) of the Nagoya Protocol. On the other hand, the need for a sMTA may depend on the extent to which the genetic resources are used for the purpose of the *Plant Treaty*. As Medaglia et al put it, article 4 is 'not a blanket exclusion for the specialized instrument such as the *Plant Treaty*, but rather that the exclusion applies only where and to the extent that the genetic resources in question are used for the purpose of that specialized instrument (food and agriculture)'.²⁶

So, for PGRFA of the *Plant Treaty*'s 64 crops and forages, the Nagoya Protocol does not apply if:

- access is for food and agriculture purposes, or for research, breeding and training for food and agriculture;
- access is between Contracting Parties of the *Plant Treaty*.

However, the Nagoya Protocol applies if access is for chemical, pharmaceutical and/or other non-food industrial uses.

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²⁶ Jorge Cabrera Medaglia, Morten Walløe Tvedt, Frederic Perron-Welch, Ane Jørem and Freedom-Kai Phillips, *The Interface between the Nagoya Protocol on ABS and the ITPGRFA at the International Level: Potential Issues for Consideration in Supporting Mutually Supportive Implementation at the National Level*, Lysaker, Fridtjof Nansens Institutt, FNI Report 1 (2013), 20.

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