Reporting procedure under the Standard Material Transfer Agreement of the Multilateral System of the International Treaty on Plant Genetic Resources for Food and Agriculture for European Providers

(last modified 24 June 2008)

Background

Article 12.4 of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR) provides that facilitated access under the Multilateral System (MLS) shall be provided pursuant to a Standard Material Transfer Agreement (SMTA). The Governing Body of the ITPGR adopted the SMTA in its Resolution 1/2006 of 16 June 2006. The SMTA is a standardized bilateral contract between a person/institution providing material for the MLS (**Provider**) and a person/institution to whom the material, as described by the SMTA, is transferred to (**Recipient**). Reporting obligations arising from the SMTA for the **Provider** are specified in the following articles of the SMTA:

4.4 The third party beneficiary has the right to request the appropriate information as required in Articles 5.e, 6.5c 8.3 and Annex 2, paragraph 3, to this Agreement.

*5.e The **Provider** shall periodically inform the Governing Body about the Material Transfer Agreements entered into, according to a schedule to be established by the Governing Body. This Information shall be made available by the Governing Body to the third party beneficiary*[1].

In its report to the Second Session of the Governing Body of the ITPGR (IT/GB-2/07/Report) "the Governing Body considered document, *Progress in the Inclusion of Plant Genetic Resources for Food and Agriculture in the Multilateral System (*IT/GB-2/07/11). It requested the Secretary to continue gathering information on the assessment of progress in the inclusion of plant genetic resources in the Multilateral System, **through cost-effective means, including gathering information from National Focal Points**. Contracting Parties requested help to develop information packages on key elements of the Treaty as a means to enhance their implementation activities. The Governing Body noted with appreciation that almost 100,000 samples had already been distributed under the terms of the Standard Material Transfer Agreement by the International Agricultural Research Centres of the Consultative Group on International Agriculture, within the first nine months of 2007."

Additional information related to the inclusion of plant genetic resources in the Multilateral System of the Treaty is available in document IT/GB-2/07/inf.4. This information document reports from a Technical Consultation of Stakeholders which stated *inter alia* in relation to the transaction costs and integration with existing systems:

„A. Transaction analysis
*.....Stakeholders also observed that **automation of processes in the generation and reporting of Standard Material Transfer Agreements (SMTAs) will greatly reduce transaction costs**. They would also assist the Third Party Beneficiary, if and when the Governing Body decided to refer a specific question to it.*

[1] Such information should be submitted to: The Secretary, International Treaty on Plant genetic Resources for Food and Agriculture, FAO, Rome.

.....Some Providers noted, that they currently "black-box" information in their information archives (including the Recipient of plant genetic resources made available). Clearly defined ***protocols will be needed, that ensure that no information provided can be used in ways that do not respect confidentiality.****"*

„It was recognized that information technology support for the Multilateral System could provide various forms of management information to the Governing Body (for example, on progress in including the plant genetic resources for food and agriculture held by natural and legal persons in the Multilateral System), but it was noted that such information generation should be non-invasive, should not require tracking of individual accessions, and ***should not impose an undue burden for reporting****."*

„B. Integration with existing systems
(a) Genebanks and institutions involved in the management of plant genetic resources for food and agriculture already control a number of ***sophisticated information systems****, and many initiatives are underway to promote* ***common standards****. This is a key factor in this early period of operationalization of the Multilateral System, in order to facilitate implementation and ensure mutually compatible procedures. It was also recognised that* ***solutions for integration into the Multilateral System will need to result in minimal adjustments to existing systems****.*

(b) In this context, the ***Multi-Crop Passport Descriptions (MCPDs)*** *were recognized as providing a framework in which to define what is required as passport-associated information. Bioversity International will be revising the MCPDs in the near future.*

(c) Also stressed was the need to adequately fund and support the essential elements on which the Multilateral System will need to be based, including ***international, regional and national databases, such as SINGER, EURISCO and USDA-GRIN****."*

Inclusion of European Material

Since IT/GB-2 in October 2007, some European institutes have included material into the Multilateral System:

- Centre for Genetic Resources (CGN), Wageningen University and Research Centre, Wageningen, Netherlands;
- Institute of Fruit Breeding (IOZ), Federal Research Centre for Cultivated Plants - Julius Kuehn Institute, Dresden-Pillnitz, Germany and
- Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Gatersleben, Germany

However, there is no complete overview of all institutes and material in Europe; hence there could be other institutes which have also included material into the Multilateral System but are not known to the author(s) of this paper. Thus there are also no reliable data available on the number of transaction / concluded SMTAs by European Providers.

In principle, Providers do have various possibilities to fulfil their reporting obligations, e.g. by direct reporting to the Treaty Secretariat, either sending files by mail or electronically or using specific software for recording and exchange such as the Ordering ToolKit (IT/GB-2/07/inf.4). Considering the PGR ex situ conservation landscape in Europe (EURISCO June 2008: over 1.1 mio. accessions, with 239 institutions from National Inventories representing 39 countries) it becomes quite clear, that a direct reporting by each Provider to the Treaty Secretariat would create enormous extra work for both sides, resulting in increased cost.

Keeping this in mind and following the recommendations from the stakeholder consultation it seems reasonable to reduce transaction costs by basing the reporting obligations for European providers of MLS material upon existing information systems as an additional option for European providers.

The existing system in Europe is the system of National Inventories (NI) and the transfer of data from these NIs to EURISCO. This infrastructure should not only be used for the reporting of MLS material by the Contracting Parties of the Treaty but also for the reporting on MTAs concluded by European Providers.

At the national level, the existing reporting infrastructure between the National Inventory (NI) and the holding institutes can be used, since all the MLS material – and therefore all national Providers - should be included in the NI. The data exchange is based upon the EURISCO exchange format (extension of the MCPD) and comprises up to now only accession level information (see Annex 1).

Recommended procedure

Best way would be to add supplement descriptors to the EURISCO (MCPD) exchange format for the holding institutes, which are clearly defined at the moment by the institute code (SMTAINST). Only these institutes will qualify as Provider and each of these institutes will by default exchange information with the NI. In addition to the table with accession level data in EURISCO format (see Annex 1) each institute would provide a second table with "core" information on concluded SMTAs.

Proposed table[2] (for discussion):

SMTA reporting descriptors for EURISCO	
1. SMTA Institute Code	**(SMTAINST)**
FAO Institute Code [or another official code] for the institute acting as Provider. Example: DEU146	
2. SMTA Number	**(SMTANUMB)**
This number serves as a unique identifier for the SMTA contract within an institute, and is assigned by the institute acting as Provider. Example: IPK00724	
3. SMTA Date	**(SMTADATE)**
Exact date on which the SMTA contract was concluded as YYYYMMDD. No missing data (YYYY, MM or DD) allowed. Leading zeros are required. Example: 20020620	
4. SMTA Total Quantity of Accessions	**(SMTACCE)**
Total quantity of accessions transferred by the SMTA. Example: 345	
5. SMTA Quantity of Accessions per Genus	**(SMTAGENUS)**
The field is used to elaborate on the number of accession per genus transferred by the SMTA. Prefix genus name in Latin, initial uppercase letter required, and a colon followed by the number of transferred accessions for the genus without space. Separate entries referring to different genera by semicolons without space. Example: Allium:120;Beta:25;Hordeum:200	

[2] These descriptors would be added as an annex to the EURISCO descriptors.

6. SMTA Category of recipient **(SMTARECIP)**
The coded category of the Recipient of the accessions transferred by the SMTA. 1 – genebank 2 – botanical garden 3 – public research institute 4 – private breeder 5 – private individual, non-profit association 6 – education 9 – other (Elaborate in REMARK field)
7. SMTA Remarks **(SMTAREMARK)**
The remarks field is used to add notes or to elaborate on descriptor(s) with value 9 (=Other). Prefix remarks with the field name they refer to and a colon. Separate remarks are separated by semicolons without space. Example: `SMTARECIP:museum`

Mandatory fields are SMTAINST (1), SMTANUMB (2) and SMTADATE (3).

For this solution only small adaptation of the data structure in the NI / EURISCO would be necessary.

The exchange of this information should happen in the course of updating the NI and EURISCO respectively, e.g. at least once a year. Each Provider would send two tables to the National Focal Point of the NI, one table with passport data (EURISCO format) to update the NI and an additional table with data (according the proposed descriptors above) on concluded SMTAs. The NI National Focal Point would be respossible for updating the respective information in EURISCO.

EURISCO then would serve as regional interface for Europe to report on concluded SMTAs to the Treaty Secretariat.

For this purpose, countries would have to declare to the institution maintaining EURISCO (at present Bioversity International) and to the Treaty Secretariat that they will use EURISCO as a reporting tool for SMTAs concluded by European Providers.

ANNEX 1

ESTABLISHMENT OF AN EUROPEAN PLANT GENETIC RESOURCES INFORMATION INFRA-STRUCTURE

EURISCO Descriptors

for uploading information from National Inventories to EURISCO

Introduction

This descriptor list is used for uploading information from the National Inventories to EURISCO, and thus purely a format of data exchange.
The list is an extension of the FAO/IPGRI multi-crop passport descriptors (MCPD) which were published December 2001, developed jointly by IPGRI and FAO, with input from many documentation specialists worldwide, to provide international standards to facilitate germplasm passport information exchange. All MCPD are included, without change and with the same format rules, in the current list. Six descriptors were added for the specific purposes of EURISCO: the first descriptor, identifying the National Inventory and the final five allowing the incorporation of information relevant to EURISCO, which otherwise would not fit in the MCPD.

General format rules

Following format rules, as copied from the MCPD-list, apply to all fields:

- If a field allows multiple values, these values should be separated by a semicolon (;) without space(s). (i.e. Accession name: "Rheinische Vorgebirgstrauben;Emma;Avlon")
- A field for which no value is available should be left empty (i.e. Elevation). If data are exchanged in ASCII format for a field with a missing numeric value, it should be left empty. If data are exchanged in a database format, missing numeric values should be represented by generic NULL values.
- Dates are recorded as YYYYMMDD. If the month and/or day are missing this should be indicated with hyphens. Leading zeros are required (i.e. 197506--, or 1975----).
- Latitude and longitude are recorded in an alphanumeric format. If the minutes or seconds are missing, this should be indicated with hyphens. Leading zeros are required.
- For coding countries three-letter ISO 3166-1 codes are used (including the codes that are no longer in use in the ISO 3166-1, such as DDR).[3]

[3] The ISO 3166-1 Code List can be found at: http://www.un.org/Depts/unsd/methods/m49alpha.htm. Country or area numerical codes added or changed are not available on line, but can be obtained from IPGRI [t.metz@cgiar.org].

- For coding institutes the FAO Institute Codes should be used as maintained by the FAO. The codes consist of the 3-letter ISO 3166 country code of the country where the institute is located plus a three-digit number.[4]
- The preferred language for free text fields is English (i.e. Location of collecting site and Remarks).

Descriptors

The descriptors are numbered according to the FAO/IPGRI multi-crop passport descriptors (MCPD); the first descriptor (numbered 0) and the last five (numbered 29-33) are additional, and specific to this EURISCO Descriptor List. Only the four fields identifying the accession are mandatory, all other fields are highly recommended. The mandatory fields are NICODE (0), INSTCODE (1), ACCENUMB (2) and GENUS (5). The combination of these fields has to be unique.

EURISCO DESCRIPTORS
0. National Inventory code **(NICODE)** Code identifying the National Inventory; the code of the country preparing the National Inventory. Exceptions are possible, if agreed with EURISCO such as NGB. Example: `NLD`
1. Institute code **(INSTCODE)** FAO Institute Code of the institute where the accession is maintained. Example: `NLD037`
2. Accession number **(ACCENUMB)** This number serves as a unique identifier for accessions within a genebank collection, and is assigned when a sample is entered into the genebank collection. Example: `CGN00254`
3. Collecting number **(COLLNUMB)** Original number assigned by the collector(s) of the sample, normally composed of the name or initials of the collector(s) followed by a number. This number is essential for identifying duplicates held in different collections. Example: `FA90-110`
4. Collecting institute code **(COLLCODE)** Code of the Institute collecting the sample. If the holding institute has collected the material, the collecting institute code (COLLCODE) should be the same as the holding institute code (INSTCODE). Example: `NLD037`
5. Genus **(GENUS)** Genus name for taxon, in latin. Initial uppercase letter required. Example: `Allium`
6. Species **(SPECIES)**

[4] These codes are available from http://apps3.fao.org/wiews/ for registered WIEWS users. From the Main Menu select: 'PGR' and 'Download'. If new Institute Codes are required, they can be generated online by national WIEWS correspondents, or by the FAO WIEWS administrator [Stefano.Diulgheroff@fao.org].

Specific epithet portion of the scientific name, in latin, in lowercase letters. Following abbreviation is allowed: ‘sp.’

Example: `paniculatum`

7. Species authority **(SPAUTHOR)**

The authority for the species name.

Example: `L.`

8. Subtaxa **(SUBTAXA)**

Subtaxa can be used to store any additional taxonomic identifier, in latin. Following abbreviations are allowed: ‘subsp.’ (for subspecies); ‘convar.’ (for convariety); ‘var.’ (for variety); ‘f.’ (for form).

Example: `subsp. fuscum`

9. Subtaxa authority **(SUBTAUTHOR)**

The subtaxa authority at the most detailed taxonomic level.

Example: `(Waldst. et Kit.) Arc.`

10. Common crop name **(CROPNAME)**

Name of the crop in colloquial language, preferably English.

Example: `malting barley`
Example: `cauliflower`

11. Accession name **(ACCENAME)**

Either a registered or other formal designation given to the accession. First letter uppercase. Multiple names separated with semicolon without space.

Example: `Rheinische Vorgebirgstrauben;Emma;Avlon`

12. Acquisition date **(ACQDATE)**

Date on which the accession entered the collection as YYYYMMDD. Missing data (MM or DD) should be indicated with hyphens. Leading zeros are required.

Example: `1968----`
Example: `20020620`

13. Country of origin **(ORIGCTY)**

Code of the country in which the sample was originally collected.

Example: `NLD`

14. Location of collecting site **(COLLSITE)**

Location information below the country level that describes where the accession was collected. This might include the distance in kilometres and direction from the nearest town, village or map grid reference point

Example: `7 km south of Curitiba in the state of Parana`

15. Latitude of collecting site **(LATITUDE)**

Degree (2 digits) minutes (2 digits), and seconds (2 digits) followed by N (North) or S (South). Every missing digit (minutes or seconds) should be indicated with a hyphen. Leading zeros are required

Example: `10----S`
Example: `011530N`
Example: `4531--S`

16. Longitude of collecting site **(LONGITUDE)**

Degree (3 digits), minutes (2 digits), and seconds (2 digits) followed by E (East) or W (West). Every missing digit (minutes or seconds) should be indicated with a hyphen. Leading zeros are required.

Example: `0762510W`
Example: `076----W`

17. Elevation of collecting site **(ELEVATION)**

Elevation of collecting site expressed in meters above sea level. Negative values are allowed.

Example: `763`

18. Collecting date of sample (COLLDATE)

Collecting date of the sample as YYYYMMDD. Missing data (MM or DD) should be indicated with hyphens. Leading zeros are required.

Example: `1968----`
Example: `20020620`

19. Breeding institute code (BREDCODE)

FAO Institute Code of the institute that has bred the material.

20. Biological status of accession (SAMPSTAT)

The coding scheme proposed can be used at 3 different levels of detail: either by using the general codes (in boldface) such as 100, 200, 300, 400 or by using the more specific codes such as 110, 120 etc.

100) Wild
- 110) Natural
- 120) Semi-natural/wild

200) Weedy
300) Traditional cultivar/landrace
400) Breeding/research material
- 410) Breeder's line
  - 411) Synthetic population
  - 412) Hybrid
  - 413) Founder stock/base population
  - 414) Inbred line (parent of hybrid cultivar)
  - 415) Segregating population
- 420) Mutant/genetic stock

500) Advanced/improved cultivar
999) Other (Elaborate in REMARKS field)

21. Ancestral data (ANCEST)

Information about either pedigree or other description of ancestral information (i.e. parent variety in case of mutant or selection).

Example: `Hanna/7*Atlas//Turk/8*Atlas`
Example: `mutation found in Hanna`
Example: `selection from Irene`
Example: `cross involving amongst others Hanna and Irene`

22. Collecting/acquisition source (COLLSRC)

The coding scheme proposed can be used at 2 different levels of detail: either by using the general codes (in boldface) such as 10, 20, 30, 40 or by using the more specific codes such as 11, 12 etc.

10) Wild habitat
- 11) Forest/woodland
- 12) Shrubland
- 13) Grassland
- 14) Desert/tundra
- 15) Aquatic habitat

20) Farm or cultivated habitat
- 21) Field
- 22) Orchard
- 23) Backyard, kitchen or home garden (urban, peri-urban or rural)
- 24) Fallow land
- 25) Pasture
- 26) Farm store
- 27) Threshing floor
- 28) Park

30) Market or shop
40) Institute, Experimental station, Research organization, Genebank
50) Seed company

60) Weedy, disturbed or ruderal habitat
61) Roadside
62) Field margin
99) Other (Elaborate in REMARKS field)

23. Donor institute code **(DONORCODE)**

FAO Institute Code for the donor institute.

24. Donor accession number **(DONORNUMB)**

Number assigned to an accession by the donor.

Example: `NGB1912`

25. Other identification (numbers) associated with the accession **(OTHERNUMB)**

Any other identification (numbers) known to exist in other collections for this accession. Use the following system: INSTCODE:ACCENUMB;INSTCODE:ACCENUMB;… INSTCODE and ACCENUMB follow the standard described above and are separated by a colon. Pairs of INSTCODE and ACCENUMB are separated by a semicolon without space. When the institute is not known, the number should be preceded by a colon.

Example: `NLD037:CGN00254`
Example: `SWE002:NGB1912;:Bra2343`

26. Location of safety duplicates **(DUPLSITE)**

FAO Institute Code of the institute where a safety duplicate of the accession is maintained. The codes consist of the 3-letter ISO 3166 country code of the country where the institute is located plus a number.

27. Type of germplasm storage **(STORAGE)**

If germplasm is maintained under different types of storage, multiple choices are allowed (separated by a semicolon). (Refer to FAO/IPGRI Genebank Standards 1994 for details on storage type.)

10) Seed collection
11) Short term
12) Medium term
13) Long term
20) Field collection
30) In vitro collection (Slow growth)
40) Cryopreserved collection
99) Other (elaborate in REMARKS field)

28. Remarks **(REMARKS)**

The remarks field is used to add notes or to elaborate on descriptors with value 99 or 999 (=Other). Prefix remarks with the field name they refer to and a colon. Separate remarks referring to different fields are separated by semicolons without space.

Example: `COLLSRC:roadside`

29. Decoded collecting institute **(COLLDESCR)**

Brief name and location of the collecting institute. Only to be used if COLLCODE can not be used since the FAO Institution Code for this institute is not (yet) available.

Example: `Tuinartikelen Jan van Zomeren, Arnhem, The Netherlands`

30. Decoded breeding institute **(BREDDESCR)**

Brief name and location of the breeding institute. Only to be used if BREDCODE can not be used since the FAO Institution Code for this institute is not (yet) available.

Example: `CFFR from Chile`

31. Decoded donor institute **(DONORDESCR)**

Brief name and location of the donor institute. Only to be used if DONORCODE can not be used since the FAO Institution Code for this institute is not (yet) available.

Example: `Nelly Goudwaard, Groningen, The Netherlands`

32. Decoded safety duplication location **(DUPLDESCR)**

Brief name and location of the institute maintaining the safety duplicate. Only to be used if DUPLSITE can

not be used since the FAO Institution Code for this institute is not (yet) available. Example: `Pakhoed Freezers inc., Paramaribo, Surinam`
33. Accession URL **(ACCEURL)** URL linking to additional data about the accession either in the holding genebank or from another source. Example: `www.cgn.wageningen-ur.nl/pgr/collections/passdeta.asp?accenumb=CGN04848`

APPENDIX Differences between EURISCO, MCPDv2 and MCPDv1 descriptors

General changes from MCPDv1 to MCPDv2	
FAO Institution codes	Fields containing FAO institution codes should now use the codes with the format CCCNNN in which CCC is the country and NNN is the sequential number (in MCPDv1 acronyms and preliminary codes were acceptable).
Multiple values	Values in fields, which can contain multiple values, are separated by a semicolon without a space (;) (in MCPDv1 a semicolon with a space was used).

Changes per EURISCO descriptor		
EURISCO Descriptor		**Remark concerning change**
0	NICODE	Field specific for EURISCO, identifying the National Inventory. Use the country codes as specified by the ISO 3166-1 standard. Exceptions are possible, if agreed with EURISCO (such as NGB).
1	INSTCODE	See remark on FAO Institution codes.
2	ACCENUMB	Same as in MCPDv1.
3	COLLNUMB	Same as in MCPDv1.
4	COLLCODE	New descriptor in MCPDv2.
5	GENUS	Same as in MCPDv1.
6	SPECIES	Original MCPDv1 field split into two separate fields: SPECIES and SPAUTHOR.
7	SPAUTHOR	New descriptor in MCPDv2.
8	SUBTAXA	Original MCPDv1 field split into two separate fields: SUBTAXA and SUBTAUTHOR.
9	SUBTAUTHOR	New descriptor in MCPDv2.
10	CROPNAME	New descriptor in MCPDv2.
11	ACCENAME	Field name has changed (was ACCNAME). See remark on multiple values.
12	ACQDATE	New descriptor in MCPDv2.
13	ORIGCTY	Same as in MCPDv1.

14	COLLSITE	Same as in MCPDv1.
15	LATITUDE	Format changed. Now seconds are also required (or hyphens if missing), so all values will be exactly two positions longer.
16	LONGITUDE	Format changed. Now seconds are also required (or hyphens if missing), so all values will be exactly two positions longer.
17	ELEVATION	Same as in MCPDv1.
18	COLLDATE	Same as in MCPDv1.
19	BREDCODE	New descriptor in MCPDv2. See remark on FAO Institution codes.
20	SAMPSTAT	Coding system changed, all codes are now three digits long. Following list first gives the old MCPDv1 code, followed by the new MCPDv2 two digit code: 1►100, 2►200, 3►300, 4►410, 5►500, 99►999, 0►*null.*
21	ANCEST	New descriptor in MCPDv2.
22	COLLSRC	Coding system changed, all codes are now two digits long. Following list first gives the old code, followed by the new two digit code: 1►10, 1.1►11, 1.2►12, 1.3►13, 1.4►14, 2►20, 2.1►21, 2.2►22, 2.3►23, 2.4►24, 2.5►26, 3►30, 3.1►30, 3.2►30, 3.3►30, 3.4►30, 4►40, 99►99, 0►*null.*
23	DONORCODE	See remark on FAO Institution codes.
24	DONORNUMB	Same as in MCPDv1.
25	OTHERNUMB	Format changed. Now following format is used: INSTCODE:ACCENUMB. When the institute or its code is not known, the number should be preceded by a colon only. See also remark on FAO Institution codes and on multiple values.
26	DUPLSITE	See remark on FAO Institution codes.
27	STORAGE	Coding system changed, all codes are now two digits long. Following list first gives the old code, followed by the new two digit code: 1►11, 2►12, 3►13, 4►30, 5►20, 6►40, 99►99. See also remark on multiple values.
28	REMARKS	See remark on multiple values.
29	COLLDESCR	Field specific for EURISCO, free text field for solving institution code problems. Only to be used if the corresponding field COLLCODE can not be used since the FAO Institution Code for this institute is not (yet) available. The fields can contain a brief name and location of the institute, but can also contain for example the locally used acronym if this code doesn't have any corresponding additional information.
30	BREDDESCR	Field specific for EURISCO, free text, only to be used if the corresponding

		field BREDCODE can not be used. (see remarks COLLDESCR)
31	DONORDESCR	Field specific for EURISCO, free text, only to be used if the corresponding field DONORCODE can not be used. (see remarks COLLDESCR)
32	DUPLDESCR	Field specific for EURISCO, free text, only to be used if the corresponding field DUPLSITE can not be used. (see remarks COLLDESCR)
33	ACCEURL	Field specific for EURISCO, providing a link to additional information about the accession maintained elsewhere. Should contain a valid URL pointing to details about the accession either in the holding genebank or from another source.