CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

Seventieth meeting of the Standing Committee
Rosa Khutor, Sochi (Russian Federation), 1-5 October 2018

Interpretation and implementation matters

Trade control and traceability

TRACEABILITY: A WORKING DEFINITION

1. This document has been submitted by Mexico and Switzerland as co-Chairs of the intersessional working group on traceability in relation to agenda item 40.* This document was approved by the working group on a meeting held during SC70.

Background

2. At its 17th meeting (CoP17, Johannesburg, 2016), the Conference of the Parties adopted Decisions 17.152-17.155 on traceability as follows:

Directed to the Standing Committee

17.152 The Standing Committee shall, at its 68th meeting, establish a working group on traceability, which will work in collaboration with the Secretariat to:

a) recommend a working definition of 'traceability' to assist Parties in work related to the implementation of traceability systems;

b) encourage Parties that are developing traceability systems to ensure they are complementary, mutually supportive and standardized, as appropriate, and that they are adapted to the unique conditions relating to trade in CITES-listed species;

c) provide general guidance on a mechanism to coordinate and oversee the development of traceability systems using lessons learned from the development of the global CITES permits and certificates system, global information and traceability systems, and other relevant initiatives;

d) subject to the availability of external resources, and as appropriate, develop and make use of umbrella guidelines, and recommend standards, to develop traceability systems for different species that are mutually supportive and that generate standardized data;

e) subject to the availability of external resources, analyse examples that describe CITES supply chains, including but not limited to those using Unified Modelling Language, and identify points throughout the supply chain where specimens should be located, verified,

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and its application defined, bearing in mind a wide range of production systems and life forms;

f) take into account the work on e-permitting to ensure links between CITES permits and certificates and traceability identifiers;

g) collaborate with United Nations and other relevant organizations that have experience in the development and use of traceability standards and systems; and) draft a resolution on traceability, as deemed necessary, to be submitted to the Standing Committee, taking into account any relevant conclusions and recommendations of the report resulting from Decision 17.154, as appropriate, for consideration at the 18th meeting of the Conference of the Parties.

Directed to the Parties

17.153 Parties are invited to:

a) support the working group in its work on traceability;

b) inform the working group on the development of projects and on new information related to traceability in response to the Notification issued by the Secretariat under Decision 17.154;

c) adhere, as appropriate, to international standards and norms related to traceability systems in the development of these systems;

d) use data generated from traceability systems, as appropriate, in activities related to non-detriment findings and monitoring programmes; and

e) collaborate in the provision of capacity-building programmes that promote South-South and North-South cooperation in the development of traceability systems.

Directed to the Secretariat

17.154 The Secretariat shall issue a Notification, requesting Parties to provide information on the development of projects related to traceability.

17.155 Subject to the availability of external funding, the Secretariat shall:

a) develop a portal on the CITES website on traceability, to make available:

i) recommendations by the working group on a definition of 'traceability', general traceability guidelines, and other relevant information;

ii) information on new and ongoing projects, as well as existing systems, on traceability, including lessons learned;

iii) information on global organizations working on traceability standards and systems;

and

iv) relevant documents, research papers and guidelines on traceability; and

b) in collaboration with the Standing Committee working group established under Decision 17.152 and UN/CEFACT, commission a report by a global organization or expert with experience in the development of standards related to traceability, to:

i) describe a possible governance model (or models) for use in CITES traceability systems;

ii) describe the CITES supply chain using Unified Modelling Language or a similar tool;

iii) identify and recommend appropriate information exchange protocols and standards for use in CITES traceability systems;

iv) describe a generic CITES traceability standard for use as a common model; and

v) report to the Standing Committee on the conclusions of the report.

3. This document provides a working definition of traceability in trade of CITES listed species as per Decision 17.152 para a.

Definitions

4. In addition to definitions found in the CITES Glossary[1], the following definitions will be used subsequently:

   a) State of export: the area of responsibility of a Party from which a specimen originates (i.e. is taken from the wild, farmed, or artificially propagated) and is exported, regardless of it having been processed in any form or not.

   b) State of re-export: the area of responsibility of a Party from which a specimen is re-exported.

   c) Trade terms: Parameters that describe a specific CITES trade transaction, for example the parameters recoded in a CITES permit such as “live”, “skins”.

   d) Traceable asset or traceable item: an asset or an item for which information is recorded in the form of events during its lifetime, which needs to be accessed at some point in time for traceability purposes.

   e) Identifier: a reference assigned to an item which points to further information about it. Identifiers can be derived from natural features of the item (see “natural feature identifier”) or generated otherwise (e.g. in the form of a serial number, in some way attached to the item or its packaging material).

   f) Natural feature identifier: an identifier that is derived from the natural features of the item itself, such as visual patterns, microstructure of the surface, DNA[2].

   g) Globally unique identifier: an identifier that adheres to the ISO/IEC 15459-2 standard for Globally Unique Identification

   h) Event: An event involving an animal or plant product, related to the issues of What, Where, When, Who and Why[3].

   i) Trade Unit (TU): any item upon which there is a need to retrieve predefined information and that may be priced, or ordered, or invoiced at any point in any supply chain

   j) Logistic Unit (LU): an item of any composition established for transport and/or storage that needs to be managed through the supply chain

   k) Batch or lot: as defined by ISO[4] “definite amount of material produced during a single manufacturing cycle, and intended to have uniform character and quality”. Items or trade units that are part of a batch have to be considered identical twins

   l) Internal traceability: the part of traceability that refers to processes within a single entity, e.g. a company

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1 https://cites.org/eng/resources/terms/glossary.php

2 Furness A (2009) Ontology for identification. CASAGRAS Final Report, Annex C. https://docbox.etsi.org/zArchive/TISPAN/Open/IoT/low%20resolution/www.rfidglobal.eu%20CASAGRAS%20IoT%20Final%20Report%20low%20resolution.pdf

3 UN/CEFACT -AGRI/TT Products – P1015

4 https://www.iso.org/obp/ui/#iso:std:iso:guide:30:ed-3:v1:en

m) External traceability: the part of traceability that links outputs of one entity to inputs of another in a supply chain.

n) Chain traceability: the combination of internal and external traceability to allow traceability between the start to its end and vice versa.

o) Lightly processed: a process, also called primary processing, by which an item is transformed, but its fundamental nature not changed, e.g. pieces of the item, dried items etc.

p) Heavily processed: a process, also called secondary (or even tertiary) processing, by which an item or its lightly processed derivative is further processed, so that the nature of the resulting material is fundamentally changed, e.g. oil extraction, distillates, ready meals, musical instruments, fashion items etc.

q) Mass balance: a methodology to establish a relation between raw materials (inputs) and processed materials (outputs) on a time basis without requiring internal traceability.

5. Some existing definitions of traceability established by standard setting bodies, academia and others of traceability are collected in Annex I of this document.

6. These definitions, while forming the foundation upon which traceability needs to be defined in any context, are very general and not adapted to the specific context of CITES.

7. For this reason, the working group proposes the following, CITES specific working definition of traceability:

Traceability is the ability to access information on specimens and events in a CITES species supply chain.*

***** This information should be carried, on a case by case basis, from as close to the point of harvest as practicable and needed, to the point at which the information facilitates the verification of legal acquisition and non-detrimental findings and helps prevent laundering of illegal products.*

In its discussion of the traceability concept and definition the Working Group noted that:

- Traceability should not be regarded as the instrument of choice to remedy possible shortcomings in the CITES permit process and is in itself vulnerable to fraud and malpractice. Rather, traceability should be considered as an instrument to increase transparency and trust in a CITES supply chain and to encourage the application of rules and regulations.

- Implementation of traceability requires application of formalized business processes by the operators in the supply chain, appropriate record keeping and the ability to rapidly exchange traceability information, preferably in electronic format. These conditions may not always be available, in particular during the early stages of the supply chain (capture from the wild, smallholder farms and nurseries, ..) which are of particular interest for many traceability projects. This severely limits the application of traceability for CITES purposes.

- CITES supply chains are very divers and are shaped by many parameters such as species, production methods, applicable regulations and markets. This diversity sets limits to CITES efforts to develop common rules and standards for CITES traceability.

- Sharing of information about supply chain events is at the basis of a CITES traceability system. Relevant information should be accessible for stakeholders with a vested interest. It is recognized that access to CITES traceability information is restricted by other, competing factors such as ownership of information, privacy of information, national legislation or security concerns which need to be assessed specially for each CITES traceability system.

- A traceability system should cover the complete length of the supply chain relevant for the specific objective of the traceability system. However, it is recognized that factors such as costs, available technology and regal restrictions can limit the availability of capture events in certain parts of a supply chain.

- Establishment of traceability systems introduces additional costs that needs to be absorbed by producers, traders or the final consumers. Implementation of CITES traceability systems may also penalize certain stakeholders such as small scale producers or rural communities and may even exclude them from participating in trade. Therefore, the social-economic impact of a CITES traceability system needs to be carefully assessed prior to its implementation.

8. Specimens shall be identified in a way that it supports traceability, whether using natural feature identifiers or other identifiers attached to the specimen or its packaging material; identifiers shall be unique and where feasible globally unique.

9. For the state of export this shall mean that events shall be recorded to demonstrate the legal acquisition of specimens including the legal acquisition at origin.

10. For states of re-export this shall mean that events shall be recorded to:

    a) Demonstrate the legal acquisition of specimens
    b) Record the CITES import permit numbers of the specimen imported that gave rise to the specimen or derivatives being re-exported

11. The primary objective of a CITES traceability system is to deliver information that supports the legal acquisition finding. CITES traceability systems can also improve non-detriment findings as:

    - The traceability system provides better information on the trade transactions that take place
    - Events in the traceability system can be used to collect statistical data which are of interest for the non-detriment findings, such as precise locations and dates when the specimen was taken, the weight at the moment of harvest etc.

12. It is further recommended that CITES permits are identified through a globally unique permit number.

13. Each Party will have to define the specific requirements of a legal acquisition finding of a consignment at the point of export. When developing the traceability system, the country of export will also have to determine the events that the traceability systems should record to support such legal acquisition finding. The exact nature of the requirements and events depend on the characteristics of the supply chain that will be traced, for example which trade terms are used whether or the specimen is unprocessed, lightly processed or heavily processed. The following general criteria should be considered by Parties, where feasible:

    a) For non-processed specimens, e.g. live specimens, the following should be considered:

        i) Evidence of legal acquisition at the time when the traceable asset entered the supply chain, such as a catch certificate, a forestry concession, a license or other document that gives the right under national laws and regulations to harvest the species from the wild

    b) For artificially propagated plants, the following should be considered:

        i) A valid operating license

        ii) A registry – ideally electronic – of parent stock, uniquely identified at least on batch level

        iii) The relationship of the specimen to the parent stock at least on batch level

    c) For processed specimens

        i) Evidence of legal acquisition,

        ii) The relationship of the specimen to its raw material at least on batch level

        iii) Evidence of a supplier audit that investigates its legal status and the source of CITES-listed raw materials at least on a mass balance basis

14. A Management Authority that takes advantage of traceability information to substantiate a legal acquisition finding should keep records that establish a link to the traceability information that contributed to the legal assessment finding.

15. A Management Authority that takes advantage of traceability information to substantiate a legal acquisition finding is encouraged to facilitate information to its peers about the design and implementation of the traceability system in order to support Decision 17.152 para b.

16. Subject to the availability of funds, it is recommended to elaborate guidelines which help Parties to identify the critical events in a supply chain that support a legal acquisition finding. Some scenarios are provided in the Examples section of this document.

Examples

17. Example 1: The value chain of a crocodile skin leather wrist band may consist of State A where the crocodile is caught, and the skin extracted which is then exported to State B where it is tanned before it is exported to state C for further processing and consumption.

    a) When the exporter in State A requests a CITES permit for the export of the skin, it will have to demonstrate adherence to CITES rules and regulations.

    b) For this, the Management Authority in State A will require the exporter to have a valid license for extracting the crocodile species from the wild.

    c) The Management Authority will also require that each skin is uniquely identified (via biometric identification or a tag). The identifier of the skin will be recorded in conjunction with the export permit.

    d) When the tanned skins are exported to State C, the Management Authority of State B will require that the original identifier is reported for every specimen and the original CITES permit(s) be provided in conjunction with the underlying identifiers. It will record identifiers related to specimens that are exported; in case of a second reporting of the same identifier, review all re-export certificates and check the exporters that have provided that permit number as the basis for an export process.

18. Example 2: The value chain for artificially propagated orchids may consist of a nursery in State A which artificially propagates a parent stock and exports live plants. A wholesaler may import the orchids into state B and re-export them to a State C where they are consumed.

    a) When the exporting nursery requests a CITES permit for the export, it will have to demonstrate adherence to CITES rules and regulations.

    b) For this, the Management Authority in State A will require the nursery to have a valid operating license; in order to obtain the operating license, the nursery will have to identify and document the source of its parent stock; in addition, every period of validity of the license, the nursery will have to report the amount of propagated material drawn from the parent stock.

    c) The Management Authority will also require that each artificially propagated plant is identified uniquely and the parent plant (batch) recorded.

    d) The Management Authority will additionally perform a check whether the specimens show signs of being extracted from the wild.

    e) If all conditions are met, the MA will record the amount of artificially propagated plant per parent and issue a permit. At the end of the license period, the amount of artificially propagated plants from parents is reviewed as a pre-condition for the renewal of the license.

    f) When the live plant is exported from State B, the Management Authority of that State requires the wholesaler to provide the original CITES permits of State A and will record the amount of plants exported against that permit. If that quantity is in agreement with the original permit, the Management Authority will issue a re-export certificate. Should the quantity be exceeded, the Management Authority will review all re-export certificates and check the exporters that have provided that permit number as the basis for an export process.

19. Example 3: A shark fin value chain may consist of State A under whose flag a ship operates and State B into which the shark is imported (by landing it). In State B, the fin extracted and dried and then exported to State C where it is consumed.

a) The Management Authority of State A will require the vessel owner to provide information about the legal origination of the shark in the form of a valid operating license of the vessel, adherence to fishing quota where the responsible fishery management organization has established one and evidence, e.g. in the form of vessel monitoring data that the shark was fished in waters where it is allowed to fish. It then issues a CITES permit and a catch certificate.

b) The Authority in State B will allow import of the shark based on the catch certificate and a physical inspection of the vessel and its contents which records the weight of fins extracted from the landed sharks.

c) When the lightly processed, i.e. dried, sorted and graded fins are exported, the Management Authority of State B will require the exporter to provide a relationship between the exported specimens and the catch or landing certificates which relates each production batch to a series of catch certificates

d) The Management Authority will record the amount used from the original catch certificate by applying a standard or an actual conversion factor. In case, the total exported amount exceeds the landed amount, the Management Authority will check the exporters that have provided that catch certificate as the basis for an export process.

20. Example 4: The supply chain of oil from CITES-listed medicinal plants may consist of a collector in State A that sells dried specimens from the wild on a local market to a trader. That trader sells material purchased from a series of collectors to a processor purchasing from a series of traders. The processor extracts the oil and exports it to State B.

    a) The Management Authority of State A will require the exporter to provide evidence of which raw material lots were used to produce the batch(es) of specimen(s) to be exported

    b) The Management Authority of State A will also require the exporter to provide evidence that its suppliers have been audited and their legal status assessed.

    c) The Management Authority of State A will also require the exporter to provide evidence that in the supplier audit it was determined that the trader knows for a given month of product traded which collectors that materials was purchased from. It will not require that the trader operates a batch traceability system.

Recommendations

21. The Standing Committee is invited to take note of this document and in particular of the working definition of traceability in the CITES context and the comments of the Working Group in paragraph 7.

22. Subject to availability of funds, guidance material shall be elaborated how to identify those events in a supply chain that support a legal acquisition finding.

Annex 1: Other definitions of traceability

The table below provides a summary of traceability definitions from a selection of sources that are widely accepted as key definitions

Summary of general definitions of traceability[5]		
Source	**Standard or title of definition used**	**Definition**
GS1[6]	GS1 Global Traceability Standard	"the ability to track forward the movement through specified stage(s) of the extended supply chain and trace backward the history, application or location of that which is under consideration"
International Standards Organization (ISO)[7]	ISO 9000:2015 Quality management systems, Terms and definitions, Terms related to requirement, 3.6.13: traceability	"the ability to trace the history, application or location of an object" in a supply chain
World Organization for Animal Health (OIE)[8]	Animal traceability data exchange	Animal traceability is the ability to follow an animal or a group of animals during all the stages of its life.) Traceability information should give an answer on the Why, What, Where and When questions about a (group of) animal(s) or an animal related event.
Olsen & Borit (2013)[9]	How to define traceability. *Trends in Food Science & Technology*	"the ability to access any or all information relating to that which is under consideration, throughout its entire life cycle, by means of recorded identifications"
United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT)[10]	CEFACT/2014 (Animal traceability data exchange)	Traceability is retrieving information about the origin and history of an animal, a group of animals or animal products. Traceability information should give an answer on the Why, What, Where and When questions about a (group of) animal(s) or an animal related event.

[5] *(CITES Secretariat 2016). These and other relevant definitions have been collected by the CITES Secretariat and published as E-SC66 Doc. 34.1 (Rev. 1)*

[6] *GS1, (2012). GS1 Global Traceability Standard, (1.3.0), pp.1–64. Available at: http://www.gs1.org/docs/traceability/Global_Traceability_Standard.pdf*

[7] *ISO 9000:2015, Quality management systems — Fundamentals and vocabulary (https://www.iso.org/obp/ui/#iso:std:iso:9000:ed- 4:v1:en)*

[8] *UN/CEFACT (2017) BRS Animal Traceability Data Exchange v1.2 update: https://www.unece.org/fileadmin/DAM/uncefact/BRS/BRS_Animal_Traceability_BRS_v1.2.pdf*

[9] *Olsen, P. & Borit, M., 2013. How to define traceability. Trends in Food Science & Technology, 29(2), pp.142–150. Available at: http://linkinghub.elsevier.com/retrieve/pii/S0924224412002117*

[10] *United Nations Centre for Trade Facilitation and Electronic Business. (2014). Business requirements specification, Agriculture, Animal traceability data exchange. Version 0.93 (http://www1.unece.org/cefact/platform/download/attachments/53608584/P1015_Animal+Traceability_BRS_v093.pdf?version=1)*

United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT)[11]	ECE/TRADE/429 (Traceability for sustainable trade)	"The ability to substantiate a Policy Claim that requires the involvement of a Public Authority via the collection of relevant data generated along international supply chains."

[11] *Pikart & Baxter (2016). A Framework to design Traceability Systems for Cross Border Trade*