

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



Eighteenth meeting of the Conference of the Parties  
Colombo (Sri Lanka), 23 May – 3 June 2019

Interpretation and implementation matters

Regulation of trade

ELECTRONIC SYSTEMS AND INFORMATION TECHNOLOGIES

1. This document has been submitted by the Standing Committee.\*

Background

2. At its 17th meeting (CoP17, Johannesburg, 2016), the Conference of the Parties adopted Decisions 17.156-17.159 on *Electronic systems and information technologies*:

***Directed to the Parties***

17.156 *Parties are encouraged to submit to the Secretariat information regarding their planned and ongoing projects related to the use of electronic systems and information technologies in improving the management of CITES trade, and regarding the lessons learned.*

***Directed to the Standing Committee***

17.157 *The Standing Committee shall re-establish the Working Group on Electronic Systems and Information Technologies to work in collaboration with the CITES Secretariat to undertake the following tasks:*

- a) *to further collaborate with the United Nations Environment Programme-World Conservation Monitoring Centre (UNEP-WCMC) their development of the Electronic Permit Information eXchange (EPIX) system as a conduit for the exchange of CITES permits and certificates, and as a central registry to facilitate validation of CITES permit data by CITES Management Authorities and Customs officials;*
- b) *identify where the progress in the EPIX system, and the subsequent facilitation of the reporting requirements of Parties, may potentially affect the provisions of Resolution Conf. 11.17 (Rev. CoP17) on National reports and the amendment of Guidelines for the preparation and submission of CITES annual reports distributed by the Secretariat.*
- c) *to work the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), the United Nations Conference on Trade and Development (UNCTAD), the International Trade Centre (ITC), the World Bank, the World Customs Organization*

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\* *The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat (or the United Nations Environment Programme) concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.*

*(WCO), and the World Trade Organization (WTO) in the context of the Agreement on Trade Facilitation, and other relevant partners, to continue the development of joint projects that would facilitate Parties' access to electronic permitting services and their alignment to international trade standards and norms, such as the revision of the CITES e-permitting toolkit and the development of the eCITES module in ASYCUDA;*

- d) to work with the Secretariat of the International Plant Protection Convention (IPPC) in the development of electronic trade documentation and learn from IPPC's efforts to develop electronic phytosanitary certificates; and*
- e) to monitor and advise on Parties' work related to the development of traceability systems for specimens of CITES-listed species to facilitate their harmonization with CITES permits and certificates.*

**17.158** *The Standing Committee shall:*

- a) review the progress of implementation of Decision 17.157 and make recommendations as necessary, including any suggestions for the revision of Resolution Conf. 11.17 (Rev. CoP17) and the amendment of Guidelines for the preparation and submission of CITES annual reports distributed by the Secretariat, to the 18th meeting of the Conference of the Parties; and*
- b) review the information submitted by Parties under Decision 17.156, as well as the progress of implementation of Decision 17.157 and make recommendations as necessary, any suggestions for the revision of Resolution Conf. 12.3 (Rev. CoP17) on Permits and certificates to ensure the Resolution allows for electronic border clearance processes that are consistent with and incorporate the requirements of Articles III, IV, V and VI into any e-permitting system, examining in particular the issues of presentation and validation, to the 18th meeting of the Conference of the Parties.*

**Directed to the Secretariat**

**17.159** *The Secretariat shall, subject to the availability of external funding:*

- a) publish on the CITES website the results of planned and ongoing projects undertaken by Parties related to the use of electronic systems and information technologies in improving the management of CITES trade, and the lessons learned, as submitted by Parties;*
- b) communicate with national lead ministries responsible for the development of Single Window environments, to raise awareness of CITES and to ascertain the availability of financial support to assist CITES Management Authorities to develop CITES e-permitting systems; and*
- c) provide capacity-building and advisory services to support Parties interested in implementing electronic solutions for the management of CITES permits and certificates.*

Intersessional working group on electronic systems and information technologies

3. The Standing Committee, at its 69th meeting (SC69, Geneva, November 2017), established the working group on electronic systems and information technology to implement Decisions 17.157 and 17.158 with a mandate to:
  - a) further collaborate with the United Nations Environment Programme-World Conservation Monitoring Centre (UNEP-WCMC) on the development of the Electronic Permit Information eXchange (EPIX) system as a conduit for the exchange of CITES permits and certificates, and as a central registry to facilitate validation of CITES permit data by CITES Management Authorities and Customs officials;
  - b) identify where the progress in the EPIX system, and the subsequent facilitation of the reporting requirements of Parties, may potentially affect the provisions of Resolution Conf. 11.17 (Rev. CoP17) on *National reports* and the amendment of Guidelines for the preparation and submission of CITES annual reports distributed by the Secretariat.

- c) work with the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), the United Nations Conference on Trade and Development (UNCTAD), the International Trade Centre (ITC), the World Bank, the World Customs Organization (WCO), and the World Trade Organization (WTO) in the context of the Agreement on Trade Facilitation, and other relevant partners, to continue the development of joint projects that would facilitate Parties' access to electronic permitting services and their alignment to international trade standards and norms, such as the revision of the CITES e-permitting toolkit and the development of the eCITES module in ASYCUDA;
  - d) work with the Secretariat of the International Plant Protection Convention (IPPC) in the development of electronic trade documentation and learn from IPPC's efforts to develop electronic phytosanitary certificates;
  - e) monitor and advise on Parties' work related to the development of traceability systems for specimens of CITES-listed species to facilitate their harmonization with CITES permits and certificates;
  - f) make recommendations as necessary, including any suggestions for the revision of Resolution Conf. 11.17 (Rev. CoP17) on *National reports* and the amendment of the Guidelines for the preparation and submission of CITES annual reports distributed by the Secretariat, to the 18th meeting of the Conference of the Parties; and
  - g) review the information submitted by Parties under Decision 17.156, and make recommendations as necessary, any suggestions for the revision of Resolution Conf. 12.3 (Rev. CoP17) on *Permits and certificates* to ensure the Resolution allows for electronic border clearance processes that are consistent with and incorporate the requirements of Articles III, IV, V and VI into any e-permitting system, examining in particular the issues of presentation and validation, to the 18th meeting of the Conference of the Parties; and
  - h) report back to the 70th meeting of the Standing Committee.
4. The membership of the working group was agreed as follows Switzerland (Chair), Australia, Bahamas, Canada, China, France, Georgia, Germany, Guatemala, Japan, Kenya, Kuwait, Malaysia, Norway, Portugal, Republic of Korea, Russian Federation, Saudi Arabia, Singapore, South Africa, Switzerland, Thailand, Uganda, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United States of America, and Viet Nam; and Associazione Piscicoltori Italiani, Environmental Investigation Agency, International Wood Products Association, Legal Atlas, United Nations Economic Commission for Europe and United Nations Environment Programme.
5. The Standing Committee approved the work programme of the intersessional working group in Annex 1 of document [SC69 Doc. 40](#).

CITES website on information related to the use of electronic systems and information technologies [Decision 17.159 a)]

6. The Secretariat created a page on the CITES website for electronic systems and information technologies (see [www.cites.org/eng/prog/eCITES](http://www.cites.org/eng/prog/eCITES)) and provided information on the outputs of the working group on electronic systems and information technologies on this webpage.

eCITES Implementation Framework to support Management Authorities in the implementation of electronic CITES systems [Decision 17.159 c)]

7. The Secretariat, in consultation with experts from Management Authorities, prepared *The eCITES Implementation Framework - A Practitioner's Guide to implement electronic CITES Permits*<sup>1</sup>. This framework provides guidance and specific recommendations for automation of permit procedures in Management Authorities, implementation of electronic data exchange with customs for improved CITES border controls, as well as electronic permit information exchange (EPIX), to prevent fraudulent use of permits and support automated generation of annual reports. It provides a structured, stepwise implementation approach to electronic CITES systems which Parties can adapt to their specific needs and readiness to implement automated procedures.

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<sup>1</sup> <https://cites.org/sites/default/files/20180219eCITESImplementationFramework.pdf>

8. The working group reviewed and amended the Guide and concluded that the Guide contains valuable expertise and recommendations for Parties, which will help to reduce time and costs for national eCITES implementation projects.

Recommendations on the electronic equivalent of physical signatures and seals in electronic CITES permits and certificates [Decision 17.157 a) and 17.158 b)]

9. Resolution Conf. 12.3 (Rev. CoP17) on *Permits and certificates* establishes the equivalence of paper and electronic CITES permits setting out the requirements for an electronic equivalent of the physical signature in electronic forms alongside the requirements for physical signatures, seals and stamps in paper permits<sup>2</sup>.
10. In preparing for exchange of electronic CITES permits, several Parties expressed the need for further guidance regarding the implementation of electronic signatures. These Parties were concerned that the provision would mandate the use of digital signatures based on asymmetric encryption technology and Public Key Infrastructure<sup>3</sup> (PKI) for authentication of signatures. In cross-border trade, PKI is considered to be problematic as many countries do not have legal systems in place which recognise national PKI or allow recognition of digital signatures certified by PKI systems of other countries.
11. The Secretariat consulted with experts of the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) on this topic and assessed the United Nations Economic Commission for Europe (UNECE) Recommendation 14 *Authentication of trade documents*<sup>4</sup>, which provides recommendations on the use of physical and electronic signatures in trade documents. The Secretariat made recommendations on the use of electronic signatures in CITES permits which were included in Annex 1 to document [SC70 Doc. 39](#).
12. The working group met in the margins of the 70th meeting of the Standing Committee (SC70, Sochi, October 2018) and supported the Secretariat's recommendations. Working group members however concluded that it was premature to consider an amendment to Resolution Conf. 12.3 (Rev. CoP17) to elaborate further on the use of electronic signatures as proposed<sup>5</sup>, preferring to continue discussing the possible revision of this Resolution during the intersessional period following the 18th meeting of the Conference of the Parties (CoP18).
13. Based on the report of the working group on electronic systems and information technologies at SC70, the Standing Committee agreed to submit the draft decisions as found in Annex 1 to the present document to the Conference of the Parties.

Electronic permit information exchange [Decision 17.157 a) and b)]

14. In 2017, Switzerland, France and the United Nations Environment Programme – World Conservation Monitoring Centre (UNEP-WCMC) completed a joint feasibility study on the exchange of electronic permits between Management Authorities using a central hub acting as a clearing house. UNEP-WCMC developed an initial technical prototype for such an exchange hub.
15. In evaluating the prototype, the Parties found that the development of a secure, central hub solution requires significant preparatory work and agreements between Parties, as well as substantial funds for implementation and maintenance of the hub.
16. Switzerland and France resolved to progress by implementing a direct (Party-to-Party) permit exchange between the two Management Authorities, thus avoiding the need to develop and maintain a central hub. Progress has been made in developing the direct information exchange solution and both Parties have concluded the technical tests. The Parties are now preparing functional tests for coordination of permit control processes by both Authorities and to test the exchange of information on the actual numbers of

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<sup>2</sup> For example, Resolution Conf. 12.3 (Rev. CoP17) paragraph 2 e) "if a permit or certificate form, whether issued in an electronic or paper format, includes a place for the signature of the applicant, the absence of the handwritten signature or in case of electronic forms any electronic equivalent should render the permit or certificate invalid;"

<sup>3</sup> For details on PKI see [https://en.wikipedia.org/wiki/Public\\_key\\_infrastructure](https://en.wikipedia.org/wiki/Public_key_infrastructure).

<sup>4</sup> <https://www.unece.org/tradewelcome/un-centre-for-trade-facilitation-and-e-business-uncefact/outputs/cefactrecommendationsrec-index/list-of-trade-facilitation-recommendations-n-11-to-15.html>

<sup>5</sup> See document SC70 Doc. 39 Annex 2.

specimens exported or imported. Switzerland recently commenced similar exchanges of electronic permits with Norway.

17. Switzerland and the Secretariat received expressions of interest for the electronic permit exchange from other Parties including China, Czech Republic, Malaysia, Singapore, Sweden and Thailand. Switzerland is in contact with these Parties to explore their integration into a future network of electronic permit information exchanges. To share the knowledge and expertise gained to date, Switzerland and the Secretariat prepared the following three documents which were reviewed by the working group:
  - *Development of electronic permit information exchange for CITES* (information document [SC70 Inf. 9](#)) explains the differences between exchange of paper and electronic permits, introduces some of the challenges when migrating from paper to electronic permits and suggests a set of recommendations and standards that CITES should develop and adopt to facilitate the exchange of electronic permits between Parties. The document further acknowledges the potential future role of Blockchain technology for EPIX.
  - *EPIX Onboarding: Simplifying the implementation of Electronic Permit Information Exchanges between Parties* (information document [SC70 Inf. 8](#)) to facilitate integration of new Parties into already established electronic permit exchanges. It proposes a three-step process with a separation of roles between the on-boarding Party, the Parties already exchanging electronic permits and the Secretariat.
  - The draft technical specification<sup>6</sup> for electronic permit message exchanges used in the Swiss French pilot as shared with the working group. While this specification is likely to be amended, it provides important technical information for Parties preparing for electronic permit information exchanges and on possible future CITES standards for electronic permit information exchange.

#### UNCTAD aCITES software for the automation of CITES Business Processes [Decision 17.157 c)]

18. The United Nations Conference on Trade and Development (UNCTAD) developed the ASYCUDA aCITES system which provides an off-the-shelf software solution for electronic certification, control and reporting of trade in CITES-listed species. The system can be configured to the specific requirements and needs of the Management Authority including adaptation to national languages, legal requirements and workflows. Parties can implement the aCITES system as part of a technical cooperation project with UNCTAD which includes the adaptation to national requirements, development of country specific reports, integration into customs control processes, and capacity building.
19. The Secretariat received official requests to support the implementation of aCITES in Sri Lanka and in the Bahamas, and has been in discussion with the relevant national authorities. The Secretariat is also aware of the interest expressed by Armenia, Botswana, Canada, Georgia as well as the Parties of the Pacific islands and the Caribbean subregions. The Secretariat and UNCTAD are in discussion with selected Parties to develop technical cooperation projects, noting that the main obstacle for aCITES implementation appears to be the lack of funding for many of the interested developing country Parties, since they generally rely on external support for the automation of permit processes.
20. The Standing Committee, at its 69th meeting, noted the availability of the aCITES system and the interest of Management Authorities for the automation of their CITES permit systems and called upon donor agencies to support developing country Parties in the implementation of these systems.

#### Collaboration with international organizations to align of eCITES norms and standards to international standards [Decision 17.157 d) and e)]

21. The Secretariat continued to work with UN/CEFACT and in particular with the experts of the UN/CEFACT Domain on Agriculture, Fisheries and Agri-Food and provided information on the relevant work of CITES at the experts' meetings. The Secretariat also continued to liaise and exchange experience with the ePhyto project<sup>7</sup> for the electronic exchange of phytosanitary certificates conducted jointly by the International Plant Protection Convention (IPPC) and the World Trade Organization. Continuation of this collaboration is mandated by draft decisions 18.BB a) and e) presented in Annex 1 to the present document.

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<sup>6</sup> [https://cites.org/sites/default/files/eng/prog/e/SI\\_DataExchange\\_EN.DOCX](https://cites.org/sites/default/files/eng/prog/e/SI_DataExchange_EN.DOCX)

<sup>7</sup> <http://ephyto.ippc.int/>

Integration into automated border control procedures for improved control of trade in CITES-listed species Decision [17.158 b)]

22. Switzerland together with the UNCTAD Centre of Excellence in Gibraltar organised a workshop on *Customs control of trade in CITES-listed species: trends, technologies and opportunities for improved trade and regulatory control*, (Gibraltar, May 2018). Representatives from Management Authorities, national Customs administrations and international entities such as the European Commission, the World Customs Organization (WCO) and EUROPOL attended the workshop and shared their expertise in latest instruments for control of international trade. In the conclusions of the workshop, which were made available to SC70 as information document [SC70 Inf. 7](#), participants noted that:
- a) Customs administrations in many developing and developed countries have implemented the WCO Risk Management Compendium<sup>8</sup> and are now using electronic risk management systems for targeted inspections and improved control export and imports.
  - b) To strengthen the control of legal and illegal trade in specimens of CITES-listed species, it is important that these risk management systems include CITES relevant risk assessment criteria.
  - c) CITES Management Authorities should provide electronic information on CITES permits to customs and collaborate with their customs administration for the identification and implementation of CITES related risk criteria.
  - d) CITES should develop guidelines and training materials support to Management Authorities and customs administrations in the implementation of CITES risk management.
23. Participants also suggested that assessing existing CITES resolutions on permit issuance and processing may be useful in order to create an enabling environment for cooperation between CITES Management Authorities and customs administrations for the implementation of modern and efficient control procedures for trade in CITES-listed species.

Recommendations

24. The Conference of the Parties is invited to adopt the draft decisions contained in Annex 1 to the present document.
25. The proposed draft decisions, if adopted, would replace Decisions 17.156-17.159, which can therefore be deleted.

COMMENTS OF THE SECRETARIAT

- A. The Secretariat underlines that discussions regarding the automation of CITES permit processes, including the integration of the CITES permit process into automated customs control procedures and the implications of paperless trade processes for the endorsement of CITES permits, cannot be confined to information technology aspects alone. Rather, Parties need to consider permit processes (paper and electronic) of the Convention in the larger context of international efforts aimed at improving efficiency and transparency in trade, including aspects of automation in the international supply chain.
- B. With these considerations in mind, the Secretariat recommends the adoption of the draft decisions proposed by the Standing Committee, with the amendments outlined in paragraphs C and E through M below. The amendments proposed by the Secretariat include relevant developments that took place since SC70 and take into account the draft decisions related to compliance matters, contained in document CoP18 Doc. 27.
- C. The Secretariat will publish the results of planned and ongoing projects undertaken by Parties related to automation of CITES procedures and controls and electronic permit information exchanges and outputs provided by Parties as per draft decision 18.AA paragraph h) on the CITES website.

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<sup>8</sup> <http://www.wcoomd.org/en/Topics/Facilitation/Instrument%20and%20Tools/Tools/Risk%20Management%20Compendium>

- D. The Secretariat also proposes two additional draft decisions to frame the work on electronic systems and information technologies within the broader context of authentication and control of permits by border authorities (see paragraphs N through Q below).

#### Support to Parties from developing countries for the implementation of electronic permit solutions

- E. The Secretariat notes the interest of Parties, including developing countries, to implement electronic permit solutions as documented in the report on the questionnaire on planned and ongoing projects for electronic CITES systems (see document SC69 Doc. 40, paragraph 3 to 9). The Secretariat has received generous financial in-kind contributions from Switzerland and the United States of America in support of eCITES implementation to date. A substantive increase in funding will be required to provide access to electronic permit solutions to a larger number of Parties requesting and eligible for support.
- F. The Secretariat therefore suggests adding the following paragraph directed to the Parties in the proposed draft decision 18.AA:
- b) call upon donor agencies to take note of the interest of those Management Authorities from developing countries to adopt automated, electronic permit solutions and to provide funding for the implementation of these solutions;

#### Decisions directed to the Standing Committee

- G. Considering that aspects of automation in the CITES supply chain would be framed in the context of international efforts aimed at improving efficiency and transparency in trade, which in turn is intrinsically linked to and must take into account the relevant discussions under the compliance- and law enforcement-related agenda items, the Secretariat suggests that the draft decisions 18.BB in Annex 1 be addressed to the Standing Committee and to the Secretariat to ensure that these interlinkages are carefully considered when deciding how to organize this work, with support from the Secretariat, where necessary.
- H. The Secretariat therefore suggests that the draft decisions in Annex 1 be amended as follows:

In draft decision 18.AA, delete paragraph a)

Amend the chapeau of draft decision 18.BB as follows:

#### ***18.BB Directed to the Standing Committee and the Secretariat***

~~The Standing Committee and the Secretariat shall undertake the following tasks establish a working group on electronic systems and information technologies to work in collaboration with the CITES Secretariat to undertake the following tasks:~~

Delete paragraphs b), c) and h) in draft decision 18.BB and delete draft decision 18.CC.

#### Use of Blockchain for electronic permit information exchange

- I. The Secretariat reported to the Standing Committee at SC69<sup>9</sup> that it had prepared a description of requirements for electronic exchange of CITES permits through Blockchain (The CITES Blockchain Challenge – see information document SC69 Inf. 33<sup>10</sup>) to encourage academia and private sector companies to undertake research on the potential of Blockchain technology for CITES.
- J. The Technical University of Berlin<sup>11</sup> and the company adesso Schweiz<sup>12</sup> made a joint response to the CITES Blockchain Challenge in November 2018 and presented the outcome of their research to the Secretariat and Switzerland as previous Chair of the Standing Committee's working group on information technologies and electronic systems.

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<sup>9</sup> See SC69 Doc. 40 paragraph 31

<sup>10</sup> <https://cites.org/sites/default/files/eng/com/sc/69/inf/E-SC69-Inf-33.pdf>

<sup>11</sup> <https://www.tu-berlin.de/menue/home/parameter/en/>

<sup>12</sup> <https://www.adesso.ch/en/index-2.jsp>

- K. The research presented was based on Ethereum<sup>13</sup> blockchain technology using smart contracts<sup>14</sup> and a Proof of Authority<sup>15</sup> consensus mechanism for electronic permit information exchange. The presented blockchain could be used to exchange both paper and electronic CITES permits. The system would ensure that permits would be immutable to unauthorized changes, allow to trace the use of the permit in the supply chain including import, export and re-export as well as real time and on-line reporting and statistical analysis of CITES trade transactions. Users would be able to access the blockchain through standard office information and communication technology equipment or smartphones connected to the Internet.
- L. The Secretariat notes that such a solution could be relevant for the secure exchange of paper-based CITES permits between all Parties in the supply chain and would be also be accessible to developing country Parties. The Secretariat plans to continue exploring new technologies for the exchange of CITES permits such as Blockchain, and to develop a proof-of-concept pilot as appropriate and report the results to the Standing Committee.
- M. The Secretariat therefore suggests adding the following instructions to the Secretariat in the proposed draft decision 18.CC in Annex 1:
- e) work with relevant partners to explore emerging technologies, including blockchain-related technologies, for secure and efficient issuance, exchange and control of CITES permits and certificates; and
  - f) report progress on the above to the Standing Committee, and to the Conference of the Parties, as appropriate.

#### Authentication and control of permits and certificates

- N. The Secretariat notes that some of the work described under the proposed draft decisions in Annex 1 focuses on the impact of the use of information and communication technology on permit authentication and control by border authorities. The discussion at SC70 regarding the physical endorsement of permits and certificates in paperless customs clearance processes<sup>16</sup> also has a similar focus.
- O. The Secretariat believes that the topic of permit authentication and control by border authorities goes beyond the scope of electronic systems and information technologies and would benefit from a wider discussion regarding the processes for the authentication and control of both paper and electronic CITES permits and certificates. This would allow the topic of electronic permit control to be mainstreamed into a discussion on how to ensure the mutual supportiveness between the CITES permitting processes and the various approaches and technologies for improved trade efficiency and transparency.
- P. To better assess what practices are already used today among various Parties, the Secretariat believes that it would be useful to undertake a targeted analysis of selected Parties on their authentication and control practices of CITES permits, taking into account both manual and automated procedures. Such an analysis would also contribute to draft decision 18.CC paragraph c) in the Secretariat's document CoP18 Doc. 27 on *CITES compliance matters*.
- Q. The Secretariat therefore suggests that the Conference of the Parties request the Standing Committee to consider the issues related to permit authentication and control, in particular whether or not the CITES permitting process needs to be adapted to match the current range of efforts and tools aimed at improving efficiency and transparency in trade. Such consideration should be based on inputs from Parties and the Secretariat. The Secretariat proposes a separate set of draft decisions on *Authentication and control of permits* to be considered by the Conference of the Parties.
- R. The amendments to the draft decisions prepared by the Standing Committee and the new set of draft decisions on *Authentication and control of permits* proposed by the Secretariat are shown in Annex 2. These also include editorial amendments made by the Secretariat.

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<sup>13</sup> <https://en.wikipedia.org/wiki/Ethereum>

<sup>14</sup> [https://en.wikipedia.org/wiki/Smart\\_contract](https://en.wikipedia.org/wiki/Smart_contract)

<sup>15</sup> <https://en.wikipedia.org/wiki/Proof-of-authority>

<sup>16</sup> See SC70 Sum. 9 (Rev. 1) paragraph 37

DECISIONS FORWARDED BY THE STANDING COMMITTEE TO COP18

**18.AA Directed to Parties**

Parties are invited to

- a) support the working group on electronic systems and information technologies; and
- b) consider the *eCITES Implementation Framework* in regard to its potential usefulness in planning and implementing electronic CITES systems and report back on which information is useful to their own particular efforts and what additional support is needed to address other issues affecting implementation such as governance structure, technical capacity, and law enforcement restrictions.

Parties are requested:

- a) to consider the implementation of electronic CITES systems in a manner designed to increase transparency and efficiency of the permit issuance and control process, to prevent use of fraudulent permits, and to provide quality data for improved sustainability assessment;
- b) to take note of the UNCTAD aCITES system as a low cost, off-the-shelf solution that is now available to Parties for implementation;
- c) if using electronic CITES systems to:
  - i) Consider UN/CEFACT Recommendation 14 on Authentication of trade documents as good practice when implementing the electronic equivalent of signatures and seals for electronic CITES permitting systems and exchanges;
  - ii) Authenticate each user who has access to the electronic system using username and passwords, and/or similar technologies, or both;
  - iii) Ensure that electronic CITES systems keep an audit trail, i.e. keep electronic records (including, but not limited to, confirmation of transmission and receipt with associated time stamps and message headers) that enable the Management Authority to identify each person who requested, approved, processed, issued, endorsed, or altered electronic CITES permits and certificates; and
  - iv) Keep archives of audit trails for no fewer than five years after the expiry date of the permit or certificate, or no fewer than five years after the date that the trade was reported in the Party's annual report, whichever is later;
  - v) Provide the CITES Secretariat with copies of all valid electronic signatures it uses for issuance of permits and certificates in accordance with Article IX (4) of the Convention and paragraph 3 p) of Resolution Conf. 12.3 (Rev. CoP17) on *Permits and certificates*;
  - vi) Notify the Secretariat immediately when authenticated users are removed or no longer authenticated; and
  - vii) Recognize that in electronic CITES systems that meet the above requirements i) – v) the electronic equivalent of a physical signature and a seal may be provided through the authenticated identification of the permit applicant, the official who issued or authorized the permit or certificate, any official who altered the permit or certificate, the issuing authority, and the inspecting official who endorsed the permit or certificate;
- d) to establish a systematic dialogue and ongoing collaboration between their Management Authorities and their national Customs and border control agencies to implement an efficient, risk based control system for cross border trade in CITES listed species where possible and appropriate; and

- e) to provide information to the Secretariat on the state of automation of CITES permit processes and the implementation control systems for cross border trade in CITES listed species and share their lessons learned.

**18.BB Directed to the Standing Committee**

The Standing Committee shall establish a working group on electronic systems and information technologies to work in collaboration with the CITES Secretariat to undertake the following tasks:

- a) work with the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), the United Nations Conference on Trade and Development (UNCTAD), the International Trade Centre (ITC), the World Bank, the World Customs Organization (WCO), the World Trade Organization (WTO) and other relevant partners, to continue the development of joint projects that would facilitate Parties' access to electronic permitting services and their alignment to international trade standards and norms, such as the further development and implementation of the UNCTAD aCITES system;
- b) work with the World Customs Organization, the United Nations Office on Drugs and Crime, the Global Container Control Programme and other relevant national and international organizations and initiatives to develop recommendations, guidelines and training materials to support the establishment of risk based trade control systems to combat illegal trade in wildlife and facilitate compliant trade where possible and appropriate;
- c) develop recommendations and best practice guidelines for CITES permit issuance and control processes when using electronic CITES permit systems and information exchanges;
- d) work with all relevant partners on the development of standards and solutions for Electronic Permit Information eXchange (EPIX) for the exchange of CITES permits and certificates and to improve the validation of CITES permit data by CITES Management Authorities and Customs officials;
- e) work with the Secretariat of the International Plant Protection Convention (IPPC), National Plant Protection Organizations (NPPOs) and other relevant organizations to learn from their efforts and work towards a harmonization of standards and procedures for licenses, permits and certificates frequently used in conjunction of cross border trade in CITES listed specimen;
- f) monitor and advise on Parties' work related to the development of traceability systems for specimens of CITES-listed species to facilitate their harmonization with CITES permits and certificates;
- g) develop the capacity of Management Authorities, especially those with the greatest needs, to electronically collect, secure, maintain, and transmit data using systems compatible with those of the Secretariat and other Management Authorities;
- h) develop recommendations for any appropriate revision of Resolution Conf. 12.3 (Rev. CoP17) on *Permits and certificates* to ensure electronic CITES permit systems and electronic border clearance processes are compliant with and incorporate the requirements of the Convention, including Articles III, IV, V and VI, examining in particular the issues of presentation and validation, to the 19th meeting of the Conference of the Parties; and
- i) develop recommendations for any appropriate revision of Resolution Conf. 11.17 (Rev. CoP17) on *National reports* and Guidelines for the preparation and submission of CITES annual reports distributed by the Secretariat.

**18.CC Directed to the Standing Committee**

The Standing Committee shall review the progress of implementation of the above Decision and make recommendations as necessary, including any appropriate suggestions for the revision of Resolution Conf. 12.3 (Rev. CoP17) on *Permits and certificates*, Resolution Conf. 11.17 (Rev. CoP17), on *National reports*, and Guidelines for the preparation and submission of CITES annual reports distributed by the Secretariat, to the 19th meeting of the Conference of the Parties.

**18.DD Directed to the Secretariat**

The Secretariat shall, subject to the availability of external funding

- a) Organize in collaboration with the working group on electronic systems and information technologies and relevant partners an international workshop on modern customs procedures for improved control of trade in CITES listed species to simplify compliant trade and combat against illegal trade in wildlife and prepare recommendations to the Standing Committee;
- b) Prepare a report on risk management systems for efficient control of trade in CITES listed species and prepare recommendations to the Standing Committee;
- c) Work with national and international organizations such as the World Customs Organization, the United Nations Conference on Trade and Development, the UN Regional Commissions, the United Nations Office on Drugs and Crime, the World Trade Organization and the World Bank to support Parties in the implementation of efficient and risk based procedures for control in CITES-listed species using information technologies and modern trade control procedures;
- d) Maintain the eCITES website and publish the results of planned and ongoing projects undertaken by Parties related to automation of CITES procedures and controls and electronic permit information exchanges and outputs provided by the working group on electronic permit processing and efficient control procedures; and
- e) Provide capacity building and advisory services to support Parties interested in implementing electronic solutions for the management and control of CITES permits and certificates and support Parties in establishing electronic permit systems and information exchanges.

**Decisions on electronic systems and information technologies**

**(as amended by the Secretariat. New text is underlined and deleted text is in strikethrough)**

**18.AA Directed to Parties**

Parties are invited to

~~— a) support the working group on electronic systems and information technologies; and~~

ab) consider the *eCITES Implementation Framework* in regard to its potential usefulness in planning and implementing electronic CITES systems and report back on which information is useful to their own particular efforts and what additional support is needed to address other issues affecting implementation such as governance structure, technical capacity, and law enforcement restrictions;

be) call upon donor agencies to take note of the interest of those Management Authorities from developing countries to adopt automated, electronic permit solutions and to provide funding for the implementation of these solutions;

~~— Parties are requested:~~

ca) ~~to~~ consider the implementation of electronic CITES systems in a manner designed to increase transparency and efficiency of the permit issuance and control process, to prevent use of fraudulent permits, and to provide quality data for improved sustainability assessment;

db) ~~to~~ take note of the UNCTAD aCITES system (Electronic CITES Certification System) as a low cost, off-the-shelf solution that is now available to Parties for implementation;

ee) if using electronic CITES systems ~~to~~:

i) consider UN/CEFACT Recommendation 14 on Authentication of trade documents as good practice when implementing the electronic equivalent of signatures and seals for electronic CITES permitting systems and exchanges;

ii) authenticate each user who has access to the electronic system using username and passwords, and/or similar technologies, or both;

iii) ensure that electronic CITES systems keep an audit trail, i.e. keep electronic records (including, but not limited to, confirmation of transmission and receipt with associated time stamps and message headers) that enable the Management Authority to identify each person who requested, approved, processed, issued, endorsed, or altered electronic CITES permits and certificates;

iv) keep archives of audit trails for no fewer than 5 years after the expiry date of the permit or certificate, or no fewer than 5 years after the date that the trade was reported in the Party's annual report, whichever is later;

v) provide the CITES Secretariat with copies of all valid electronic signatures it uses for issuance of permits and certificates in accordance with Article IX(4) of the Convention and paragraph 3(p) of Resolution Conf. 12.3 (Rev. CoP17);

vi) notify the Secretariat immediately when authenticated users are removed or no longer authenticated; and

- vii) recognize that in electronic CITES systems that meet the above requirements i) – iv), the electronic equivalent of a physical signature and seal may be provided through the authenticated identification of any of the following individuals: the permit applicant; the official who issued or authorized the permit or certificate; the official who altered the permit or certificate; the issuing authority; and the inspecting official who endorsed the permit or certificate.
- gd) ~~to~~ establish a systematic dialogue and ongoing collaboration between their Management Authorities and their national Customs and border control agencies to implement an efficient, risk-based control system for international ~~cross border~~ trade in CITES listed species where possible and appropriate; and
- he) ~~to~~ provide information to the Secretariat on the state of automation of CITES permit processes and the implementation of control systems for international ~~cross border~~ trade in CITES-listed species and share their lessons learned.

**18.BB *Directed to the Standing Committee and to the Secretariat***

The Standing Committee and the Secretariat shall undertake the following tasks ~~establish a working group on electronic systems and information technologies to work in collaboration with the CITES Secretariat to undertake the following tasks:~~

- a) work with the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), the United Nations Conference on Trade and Development (UNCTAD), the International Trade Centre (ITC), the World Bank, the World Customs Organization (WCO), the World Trade Organization (WTO) and other relevant partners, to continue the development of joint projects that would facilitate Parties' access to electronic permitting services and their alignment to international trade standards and norms, such as the further development and implementation of the UNCTAD aCITES system;
- ~~b) work with the World Customs Organization, the United Nations Office on Drugs and Crime, the Global Container Control Programme and other relevant national and international organizations and initiatives to develop recommendations, guidelines and training materials to support the establishment of risk-based trade control systems in customs agencies to combat illegal trade in wildlife and facilitate compliant trade where possible and appropriate;~~
- ~~c) develop recommendations and best practice guidelines for CITES permit issuance and control processes when using electronic CITES permit systems and information exchanges;~~
- ~~bd) work with all relevant partners on the development of standards and solutions for Electronic Permit Information eXchange (EPIX) for the exchange of CITES permits and certificates and to improve the validation of CITES permit data by CITES Management Authorities and Customs officials;~~
- ~~ce) work with the Secretariat of the International Plant Protection Convention (IPPC), National Plant Protection Organizations (NPPOs) and other relevant organizations to learn from their exchange information and experience on the efforts and work towards a harmonization of standards and procedures for licenses, permits and certificates frequently used in conjunction of cross border trade in CITES listed specimen;~~
- ~~df) monitor and advise on Parties' work related to the development of traceability systems for specimens of CITES-listed species to facilitate their harmonization with CITES permits and certificates;~~
- eg) support the development of ~~develop~~ the capacity of Management Authorities, especially those with the greatest needs, to electronically collect, secure, maintain, and transmit data using systems compatible with those of the Secretariat and other Management Authorities; and

- ~~h) develop recommendations for any appropriate revision of Resolution Conf. 12.3 (Rev. CoP17) on *Permits and certificates* to ensure electronic CITES permit systems and electronic border clearance processes are compliant with and incorporate the requirements of the Convention, including Articles III, IV, V and VI, examining in particular the issues of presentation and validation, to the 19th meeting of the Conference of the Parties;~~
- fi) develop make recommendations, as necessary, for any appropriate the revision of Resolution Conf. 12.3 (Rev. CoP17) on *Permits and certificates*, Resolution Conf. 11.17 (Rev. CoP17) on *National reports* and the *Guidelines for the preparation and submission of CITES annual reports distributed by the Secretariat.*

**~~18.CC~~ Directed to the Standing Committee**

~~The Standing Committee shall review the progress of implementation of the above Decision and make recommendations as necessary, including any appropriate suggestions for the revision of Resolution Conf. 12.3 (Rev. CoP17) on *Permits and certificates*, Resolution Conf. 11.17 (Rev. CoP17), on *National reports*, and *Guidelines for the preparation and submission of CITES annual reports distributed by the Secretariat*, to the 19th meeting of the Conference of the Parties.~~

**18.CCDD Directed to the Secretariat**

The Secretariat shall, subject to the availability of external funding:

- a) organize in collaboration with the World Customs Organization and other the working group on electronic systems and information technologies and relevant partners an international workshop on modern customs procedures for improved control of trade in CITES listed species to simplify compliant trade and combat against illegal trade in wildlife and prepare recommendations to the Standing Committee;
- ~~b) prepare a report on risk management systems for efficient control of trade in CITES listed species and prepare recommendations to the Standing Committee;~~
- ~~be) work with national and international organizations, such as the World Customs Organization, the United Nations Conference on Trade and Development, the UN Regional Commissions, the United Nations Office on Drugs and Crime, the World Trade Organization and the World Bank to support Parties in the implementation of efficient and risk-based procedures for control in CITES-listed species in relation to the automation of CITES permitting processes using information technologies and modern trade control procedures;~~
- ~~cd) maintain the eCITES website and publish the results of planned and ongoing projects undertaken by Parties related to automation of CITES procedures and controls and electronic permit information exchanges and outputs provided by Parties as per Decision 18.AA paragraph h) the working group on electronic permit processing and efficient control procedures;~~
- ~~de) provide capacity building and advisory services to support Parties interested in implementing electronic solutions for the management and control of CITES permits and certificates and support Parties in establishing electronic permit systems and information exchanges;~~
- ~~e) work with relevant partners to explore emerging technologies including Blockchain related technologies for secure and efficient issuance, exchange and control of CITES permits and certificates; and~~
- ~~f) submit reports on activities undertaken under Decisions 18.AA, 18.BB and 18.CC and make recommendations to the Standing Committee as appropriate.~~

**18.DD**      ***Directed to the Standing Committee***

The Standing Committee shall review the reports and recommendations of the Secretariat under Decision 18.CC f) and make recommendations on electronic systems and information technologies as required to the 19th meeting of the Conference of the Parties.

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***Decisions on authentication and control of permits***

***(New set of draft decisions proposed by the Secretariat)***

**18.AA Directed to Parties**

Parties are encouraged to provide the Secretariat with information on their approaches and experiences in the authentication and control of CITES permits.

**18.BB Directed to the Secretariat**

Subject to external funding, the Secretariat shall:

- a) prepare, in consultation with interested Parties, an in-depth study on the current practices in CITES permit authentication and control, using a selection of Parties as case studies to demonstrate the state-of-play on how current trading practices and the use of technologies affect their CITES trade regulation process; and
- b) identify possible gaps in relevant Resolutions that could be addressed to provide guidance to Parties, particularly from the point of view of adapting CITES permitting process to match the current range of trading practice.

**18.CC Directed to the Standing Committee**

The Standing Committee shall consider the report on authentication and control of CITES permits prepared by the Secretariat and make recommendations to the Conference of the Parties, as deemed necessary.

TENTATIVE BUDGET AND SOURCE OF FUNDING  
FOR THE IMPLEMENTATION OF DRAFT RESOLUTIONS OR DECISIONS

According to Resolution Conf. 4.6 (Rev. CoP16) on *Submission of draft resolutions, draft decisions and other documents for meetings of the Conference of the Parties*, the Conference of the Parties decided that any draft resolutions or decisions submitted for consideration at a meeting of the Conference of the Parties that have budgetary and workload implications for the Secretariat or permanent committees must contain or be accompanied by a budget for the work involved and an indication of the source of funding. The authors of this document propose the following tentative budget and source of funding.

18.BB b): The development of training materials and guidelines to develop risk-based control systems to combat illegal trade in wildlife will require a consultancy to prepare the documents and training materials and support for two meetings of a steering group to guide this work. The cost is estimated at 80,000 USD. The outputs will be used in the workshops on improved CITES trade control organised under draft decision 18.DD a), the report and recommendations to the Standing Committee under draft decision 18.DD b) and for Secretariat advisory services to Parties under draft decision 18.DD e).

18.BB g) and 18. DD e): To provide countries with a low-cost solution for access to electronic CITES permit processing the Secretariat and UNCTAD intend to set up a cloud-based aCITES system which can be made available to interested Parties for training and production trials (aCITES Base Module). The implementation of this system and the first-year operation is estimated at 200,000 USD and can be partially supported by funding provided by Switzerland and the United States of America and in-kind support from UNCTAD. The annual budget for continuous support and availability of this system is estimated at 100,000 USD. The costs for an aCITES implementation in a specific country depend on criteria such as requirements for specific national adaptations, training and support.

The implementation of electronic permit information exchanges between Parties will require funds. The initial funds provided by Parties will likely be used to support pilot exchanges with Parties from other countries and to develop stable standards for electronic permit information exchanges which can be used by all Parties. When these standards become available for all Parties, additional funding would be required to integrate Parties from developing countries in electronic permit information exchanges, as follows:

18.DD a): The Secretariat suggests organizing four regional preparatory workshops to support regional exchange of experiences, to promote best practices for improved control of trade in CITES-listed species and to identify the regional priorities. The regional workshops should be complemented by one global workshop to provide recommendations for a holistic, end-to-end control of CITES supply chains. The level of financial support required would depend on the workshop size and venue as well as availability of in-kind contributions from hosts and co-organisers. The costs are estimated at 60,000 USD per regional workshop and 160,000 USD for the global workshop, total 400,000 USD.

18.DD e): Funds may be required to cover the costs associated with the travel of Secretariat staff or experts for meetings with partners and Management Authorities. The cost per country is estimated at 20,000 USD (two or three missions) depending on duration, airfares and subsistence costs.

18.FF a): The development of training materials and best practice guidelines for CITES permit issuance and control processes will require a consultancy to prepare documents and training material. The outputs will contribute to the workshops on improved CITES trade control organised under draft decision 18.DD a) and Secretariat advisory services under draft decision 18.DD e). The cost is estimated at 50,000 USD.

Research on Blockchain and a proof-of-concept for exchange of permits between two Parties of which at least one is from a developing country would require approximately 150,000 USD to fund research and development by Technical University of Berlin and 40,000 USD for conducting a study on CITES supply chain analysis and capacity building in various countries.