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Item 10 of the provisional agenda*

INVASIVE ALIEN SPECIES

Note by the Executive Secretary

BACKGROUND

1. At its twelfth meeting, the Conference of the Parties adopted the Voluntary Guidance on Devising and Implementing Measures to Address the Risks Associated with the Introduction of Alien Species as Pets, Aquarium and Terrarium Species, and as Live Bait and Live Food.¹ At its thirteenth meeting, it requested the Executive Secretary to prepare draft supplemental guidance to incorporate unintentional introduction of invasive alien species, through “hitchhikers” or contaminants, and materials associated with the trade in live alien species, such as packing material, substrate or food for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice.²

2. In the same decision, the Conference of the Parties also requested the Executive Secretary:

(a) To explore, in collaboration with various international organizations, the need for tools or guidance for Parties that may assist national customs authorities in facilitating the necessary control of live alien species via e-commerce (para. 9(a));

(b) To identify options for supplementing risk assessment and risk management standards for the use of biological control agents against invasive alien species, including in aquatic environments (para. 16);

(c) To continue to compile or develop and maintain decision support tools, in a coordinated manner with the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, and make them available through the clearing-house mechanism of the Convention (para. 17(a));

(d) To develop technical guidance for conducting cost-benefit and cost-effectiveness analysis for the management of invasive alien species (para. 17(b));

(e) To develop guidance on invasive alien species management that takes into consideration the impacts of climate change, natural disasters and land-use change on the management of biological invasions (para. 17(c));

(f) To compile information on the potential consequences of invasive alien species on social, economic and cultural values (para. 17(d));

* [CBD/SBSTTA/22/1](#).

¹ Decision [XII/16](#), annex.

² Decision [XIII/13](#), para. 5.

(g) To make the information requested in paragraph 22 of decision [XIII/13](#) available through the clearing-house mechanism and other means (para. 23(a));

(h) To continue to provide support for data collection, standardization, sharing and open access at global level through the Global Invasive Alien Species Information Partnership (para. 23(b));

(i) To report on progress to the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting to be held prior to the fourteenth meeting of the Conference of the Parties.

3. In decision XIII/13, the Conference of the Parties invited relevant organizations, including the Invasive Species Specialist Group of the International Union for Conservation of Nature (IUCN-ISSG) and members of the Global Invasive Alien Species Information Partnership and other organizations that manage databases pertaining to trade in wild animals and plants, to continue their work to further develop methodologies for prioritizing the pathways of introduction of invasive alien species and for characterizing risks, and to facilitate information exchange related to invasive alien species (paras. 6 and 20).

4. In response to these requests, the Secretariat requested information and perspectives from Parties and observers on the issues noted above.³ A total of 153 submissions were received from Parties and observers.⁴ The Secretariat also convened the eighth meeting of the Inter-agency Liaison Group on Invasive Alien Species, in collaboration with the World Customs Organization,⁵ and organized an informal expert workshop.⁶

5. Section I of the present document discusses the supplementary guidance on the unintentional introduction of invasive alien species, through “hitchhikers” or contaminants, and materials associated with the trade in live alien species, such as packing material, substrate or food. Section II covers e-commerce and section III considers the development of tools, other guidance and information systems. Other matters are covered in section IV, and section V contains a draft recommendation for the consideration of the Subsidiary Body, with the supplementary guidance annexed. The present document is supported by several information documents.

I. DEVELOPMENT OF SUPPLEMENTARY GUIDANCE TO AVOID UNINTENTIONAL INTRODUCTIONS OF INVASIVE ALIEN SPECIES ASSOCIATED WITH THE TRADE IN LIVE ALIEN SPECIES

6. The following points emerged from the work mentioned in paragraph 4 above and were considered in the development of the draft supplementary guidance, which is annexed to the draft decision in section V.

³ Notifications 2017-056 and 2017-074.

⁴ Algeria, Andorra, Argentina, Australia, Belgium, Bosnia and Herzegovina, Brazil, Cambodia, Canada, China, Colombia, Czechia, Eritrea, Ethiopia, European Union, Finland, France, Gabon, Iceland, India, Iraq, Iran (Islamic Republic of), Italy, Japan, Kenya, Kiribati, Madagascar, Mauritius, Mexico, Nepal, Netherlands, New Zealand, Nigeria, Norway, Peru, Poland, Portugal, Seychelles, Slovakia, South Africa, Spain, Sri Lanka, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, Sweden, Switzerland, Tunisia, Turkey, United Kingdom (as well as England and Wales), United States of America, Venezuela, Zambia.

⁵ Held in Brussels on 22 and 23 November 2017. The following organizations participated in the eighth meeting of the Liaison Group: CABI, CBD, CITES*, IMO, IPPC, IUCN, IUCN-ISSG, OIE, WCO and WTO*(*online remote participation). The report of the Liaison Group is available at: <http://www.cbd.int/invasive/lg/>

⁶ Held in Montreal, Canada, from 6 to 9 December 2017. The experts for this workshop were selected on the basis of the information submitted in response to the notifications, with due regard for geographic and gender balance. Experts from Barbados, Brazil, Cabo Verde, Canada, Mexico, New Zealand, Sri Lanka, Sweden, Indigenous Peoples and Local Communities, the International Union for Conservation of Nature (IUCN), the IUCN-Invasive Species Specialist Group, the Global Biodiversity Information Facility (GBIF) Secretariat, and the Network of Regional Governments for Sustainable Development (nrg4SD) attended. The Secretariat received further information and comments from Canada, the European Union, Sri Lanka, Sweden, the International Plant Protection Convention (IPPC) Secretariat, the World Organisation for Animal Health (OIE), IUCN and the IUCN-Invasive Species Specialist Group during the commenting period — 22 December 2017 to 28 February 2018 — as requested by the participants. For the report of the Expert workshop, see CBD/IAS/EM/2017/1/2.

7. While progress has been made in addressing the intentional introductions of invasive alien species through the development of national and regional regulations in line with the rules and principles laid down by the standard-setting organizations recognized by the World Trade Organization, issues related to unintentional introductions through the pathways related to trade in live species and their transport have not been fully addressed. As these pose threats to biodiversity, developing the supplemental guidance is a priority for biodiversity conservation and would contribute to reducing the risk of organisms with sanitary and phytosanitary concerns.

8. The supplemental guidance should focus on the unintentional introductions of invasive alien species, through “hitchhikers” or contaminants, and materials associated with the trade in live alien species, such as packing material, substrate or food. These correspond with the transport–contaminant and transport-stowaway pathways.^{7,8} However, the guidance excludes such pathways as ballast waters and bio-fouling which do not interact directly with live species and opportunistically attach themselves to consignments of live species.

9. The supplemental guidance should provide practical measures to enhance the effectiveness of existing standards, if applicable, through their implementation by all relevant ministries and agencies of the Governments, and stakeholders involved in the value chain of the trade in live species. The relevant governmental sectors and stakeholders may include national authorities for: border controls; sanitary and phytosanitary measures; trade and transport; and relevant industry and persons who send or receive live species.

10. The development of specific regulations (harmonized measures) on invasive alien species is a resource-intensive process which, for many countries, would require capacity-building and technology transfer. Noting that national regulations are often built around existing regulations on animal health and plant protection in conformity with the World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures.⁹ Other voluntary measures, such as guidance, codes of conduct, best practices and protocols/procedure are valuable to supplement and enhance the effectiveness of the standards recognized by the World Trade Organization.

11. Unintentional introduction is also mentioned in the Guiding Principles annexed to decision VI/23¹⁰ in Principles 1, 7 and 11, which refer to the precautionary approach, border control and pathway risk analysis, respectively. Considering that border controls and pathway risk analysis can be undertaken not only by conservation or environmental authorities, but also by the authorities responsible for border controls and risk regulations as well as their enforcement bodies, the supplemental guidance should be implemented in an integrated manner by the relevant national authorities¹¹ in conformity with existing international standards and national legislation.

Risk communication

12. The existing CBD guidance on devising and implementing measures to address the risks associated with the introduction of alien species as pets, aquarium and terrarium species, and as live bait and live food, annexed to decision XII/16, provides that “consignments may be labelled as a potential hazard to biodiversity unless the species has been shown to be safe for import to the particular country or biogeographical region within the country in question” (para. 20 of the guidance). However, a globally harmonized language would facilitate more effective implementation by border control officials and other

⁷ [UNEP/CBD/SBSTTA/18/9/Add.1](https://www.unep.org/cbd/sbstta/18/9/Add.1).

⁸ IUCN, 2017. Guidance for interpretation of CBD categories on introduction pathways. Technical note prepared by IUCN for the European Commission.

⁹ https://www.wto.org/english/tratop_e/sps_e/spsagr_e.htm

¹⁰ One representative entered a formal objection during the process leading to the adoption of this decision and underlined that he did not believe that the Conference of the Parties could legitimately adopt a motion or a text with a formal objection in place. A few representatives expressed reservations regarding the procedure leading to the adoption of this decision (see [UNEP/CBD/COP/6/20](https://www.unep.org/cbd/cop/6/20), paras. 294-324).

actors involved in the value chain of live species. Currently, globally harmonized hazard labelling approaches have been undertaken by international organizations for risk communication on cross-border goods containing different hazardous substances. These include the following examples:

(a) Under the [World Organisation for Animal Health](#) (OIE): identification of the potential health risk in animals is determined as “hazard” by veterinary authorities under the existing international standards.^{12,13}

(b) Under the [World Customs Organization](#) (WCO): identification of potential border risk by national custom authorities is using labels or documents attached to a consignment with a “hazard statement”,^{14,15}

(c) Under the [World Health Organization](#) (WHO): the Guidance on Regulations for the Transport of Infectious Substances 2015–2016¹⁶ specifies requirements for packaging, labelling and documentation for infectious substances (including cultures, patient specimens, manufactured biological products, genetically modified microorganisms and genetically modified organisms, and medical and clinical wastes);

(d) Under the [United Nations](#): the fourth edition of the *Globally Harmonized System of Classification and Labelling of Chemicals*¹⁷ provides guidance on harmonized “hazard” communication elements, chemical hazards with the potential of long-term environmental impacts, including requirements for labelling and safety datasheets on “chemical hazards”. The Globally Harmonized System was developed by a committee of experts under the aegis of the United Nations Economic and Social Council.¹⁸

13. Globally harmonized risk communication methods on hazards to biodiversity would help to communicate ways to prevent the introduction of invasive alien species to the broad range of stakeholders involved in the trade in live species. The Subsidiary Body on Scientific, Technical and Technological Advice may wish to consider the possibility of developing globally harmonized labelling for cross-border consignments containing live species that may have potentially hazardous impacts on biodiversity and ecosystem services.

II. PROGRESS IN DEVELOPING GUIDANCE FOR PARTIES THAT MAY ASSIST NATIONAL CUSTOMS AUTHORITIES IN FACILITATING THE NECESSARY CONTROL OF LIVE ALIEN SPECIES SOLD VIA E-COMMERCE

14. As noted above, in decision XIII/13, the Executive Secretary was requested to explore, in collaboration with various international organizations, the need for tools or guidance for Parties that might assist national customs authorities in facilitating the necessary control of live alien species via e-commerce.¹⁹ The issue of e-commerce as it relates to the trade in live species has been addressed at various international forums:

(a) The Conference of the Parties to the [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES) amended a resolution pertaining to e-commerce in specimens

¹² <http://www.oie.int/standard-setting/terrestrial-code/access-online/>

¹³ <http://www.oie.int/standard-setting/aquatic-code/access-online/>

¹⁴ [Globally Harmonized System of Classification and Labelling of Chemicals \(GHS\), Fourth revised edition \(United Nations publication, Sales No. E.11.II.E.6\)](#).

¹⁵ “[Strategic Trade Control Enforcement \(STCE\): Implementation Guide](#)”.

¹⁶ [WHO/HSE/GCR/2015.2](#).

¹⁷ [United Nations publication, Sales No. E.11.II.E.6](#).

¹⁸ See Economic and Social Council resolution [2009/19](#) of 29 July 2009.

¹⁹ Further information on e-commerce and various other matters, as per requests in decision XIII/13, is included in information document CBD/SBSTTA/22/INF/22.

of CITES-listed species²⁰ and made recommendations to Parties to CITES concerning e-commerce in specimens with regard to investigating and controlling illegal wildlife trade. However, this is not directly relevant to the control of invasive alien species (except for species listed in the CITES appendices that may be invasive);

(b) The [International Plant Protection Convention](#) (IPPC) has worked on the topic of e-commerce in plants since 2010.^{21,22,23} The Bureau of the [Commission on Phytosanitary Measures](#) recommended that e-commerce issues be addressed through the [Trade Facilitation Agreement](#) under the World Trade Organization, and suggested several actions, including: (i) the preparation of fact sheets for national plant protection organizations; (ii) the engagement of e-commerce players and delivery services, including the [Universal Postal Union](#); and (iii) the drafting of standardized information for those stakeholders. IPPC also cooperates with the World Customs Organization's Working Group on E-Commerce and with WTO in connection with the Trade Facilitation Agreement;

(c) The [World Customs Organization](#) (WCO) established a Working Group on E-Commerce in 2016. Following the first meeting of the Working Group, WCO carried out a survey among its member States and published a Study Report on Cross-border E-Commerce²⁴ in March 2017. The Secretariat of the Convention on Biological Diversity has collaborated with WCO through the eighth meeting of the Inter-agency Liaison Group on Invasive Alien Species,²⁵ a meeting of the Sub-groups of the Working Group on E-Commerce,²⁶ and the first Global Cross-border E-Commerce Conference.²⁷ Through these meetings, the Secretariat of the Convention has contributed to the draft WCO Cross-Border E-Commerce Framework, which acknowledges, in a newly added chapter on safety and security, that living organisms, invasive alien species, pests, pathogens and products derived from animals, plants and fungi that may carry the risk of biological invasions in importing countries. The Cross-Border E-Commerce Framework was finalized by the Working Group in April 2018, and will next be considered by the WCO Policy Commission in June 2018. The final version will be made available to the Subsidiary Body as an information document. The Secretariat has been invited by WCO to continue collaboration with a view to ensuring that WCO instruments and tools can sufficiently cover the management of border risks and help minimize the spread of invasive alien species.

III. PROGRESS ON DEVELOPMENT OF TOOLS, OTHER GUIDANCE AND INFORMATION SYSTEMS

15. Progress has been made on the development of various tools, guidance and information systems related to invasive alien species. For example:

(a) The [Global Register of Introduced and Invasive Species](#) made validated invasive species occurrence information (checklists) from 28 Parties and three subnational islands freely accessible on the Internet through the collaboration of country editors participating in the Global Invasive Alien Species Information Partnership, the IUCN Invasive Species Specialist Group (ISSG) and the Global Biodiversity Information Facility (GBIF).^{28,29} Similarly, through the work of GBIF and IUCN-ISSG, invasive alien species checklists for 198 countries, including overseas territories of the European Union, are expected to

²⁰ See resolution [Conf. 11.3 \(Rev. CoP17\)](#) on compliance and enforcement.

²¹ Report of the [22nd TC-RPPO](#)

²² The IRSS study Internet Trade (e-Commerce) in Plants: Potential Phytosanitary Risks is available at <https://www.ippc.int/en/irss/activities/2/>

²³ [CPM-09 Recommendation 014/14](#)

²⁴ <http://www.wcoomd.org/~media/wco/public/global/pdf/topics/facilitation/activities-and-programmes/e-commerce/wco-study-report-on-e-commerce.pdf?la=en>

²⁵ Held at WCO headquarters in Brussels, 22-23 November 2017.

²⁶ Held in Brussels, 23-25 January 2018.

²⁷ Held in Beijing, 9-10 February 2018.

²⁸ Pagad S. et al. *Nature Scientific Data*, vol. 5, Article number: 170202 (2018) doi:10.1038/sdata.2017.202

²⁹ https://www.gbif.org/dataset/search?publishing_org=cdef28b1-db4e-4c58-aa71-3c5238c2d0b5 (accessed 28 April 2018).

be available by the end of 2018 through a dedicated website.²⁵ This information will be accessible from the CBD clearing-house mechanism in due course;

(b) In May 2017, IUCN published a consultation document on the IUCN standard classification of the impact of invasive alien taxa.³⁰ The document describes the Environmental Impact Classification for Alien Taxa (EICAT) to be applied in a consistent and comparable manner across different assessments. The EICAT data is expected to be used for evidence-based policy decisions on which alien taxa are considered to be invasive. In addition, IUCN plans to develop a database on social and economic impacts of invasive alien species (SEICAT) with an approach similar to the EICAT;

(c) The CBD pathway categorization was further clarified by experts of the IUCN-Invasive Species Specialist Group⁷ to provide guidance on how to interpret the definitions of the CBD pathway categorization system. In addition, some regional and global data sets were adapted to the CBD pathway categorization system, for example for the European Union and the Global Invasive Species Database. A search interface using the CBD pathway categorization system was adopted on the Global Invasive Species Database for Parties to review the recorded biological invasions by accessing and selecting pathways at <http://www.iucngisd.org/gisd/>;

(d) Regarding the evidence of the introduction of invasive alien organisms through unintentional introduction pathways, the IUCN-Invasive Species Specialist Group has collected information on their impacts from countries where invasive species were established and shared and analysed the impacts and major pathways responsible. The pathway specific risks have also been assessed by Nordic countries and the European Union.

IV. OTHER MATTERS

16. Further work by experts is needed to collect information on and analyse the implications of climate change for the management of invasive alien species; methods used to determine the cost-benefit and cost-effectiveness of which measures best apply to the management of invasive alien species; risk analysis of invasive alien species, taking into account the potential consequence of introduction and the impact on social, economic and cultural values; and to determine the impact of e-commerce (trade of alien species) on biodiversity. The above-mentioned activities may help develop tools and technical guidance to respond to the requests of the Conference of the Parties in decision XIII/13.

17. In response to decision IX/4 A, the ninth meeting of the Liaison Group on Invasive Alien Species,³¹ to be co-hosted by the International Civil Aviation Organization (ICAO) and the Convention on Biological Diversity,³² will focus on introduction pathways associated with air transport of cargo and passengers to minimize the risk of biological invasions associated with them.

V. SUGGESTED RECOMMENDATIONS

18. The Subsidiary Body on Scientific, Technical and Technological Advice may wish to recommend that the Conference of the Parties adopt a decision along the following lines:

The Conference of the Parties

1. *Adopts* the supplemental guidance as annexed to the present decision;
2. *Invites* Parties, other Governments and relevant organizations to apply the guidance;

³⁰ https://www.iucn.org/sites/dev/files/eicat_standard_version_1_may_2017.pdf

³¹ The Inter-agency Liaison Group on Invasive Alien Species is currently composed of the following international organizations: Centre for Agricultural Biosciences International (CABI); Convention on Biological Diversity; Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); Food and Agriculture Organization of the United Nations (FAO); International Civil Aviation Organization (ICAO); International Maritime Organization (IMO); International Plant Protection Convention (IPPC); International Union for Conservation of Nature (IUCN) and its Invasive Species Specialist Group; World Organisation for Animal Health (OIE); World Customs Organization (WCO); and World Trade Organization (WTO).

³² To be held in Montreal, Canada, on 9 and 10 July 2018.

3. *Decides* to establish an ad hoc technical expert group on invasive alien species, subject to the availability of financial resources, to convene a meeting of this group in accordance with the terms of reference contained in the annex;

4. *Encourages* Parties and *invites* other Governments to share information on national import regulations relevant to invasive alien species through the clearing-house mechanism or other equivalent means;

5. *Requests* the Executive Secretary to explore with the Secretariat of the United Nations Economic and Social Council, as well as the Inter-agency Liaison Group on Invasive Alien Species the possibility of developing a globally harmonized system of classification and labelling for biodiversity hazards, and report on its progress to the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting to be held prior to the fifteenth meeting of the Conference of the Parties.

Annex I

Draft supplementary guidance for avoiding unintentional introductions of invasive alien species associated with trade in live alien species

1. The present guidance supplements the Guidance on Devising and Implementing Measures to Address the Risks Associated with the Introduction of Alien Species as Pets, Aquarium and Terrarium Species, and as Live Bait and Live Food annexed to decision [XII/16](#).

2. The purpose of this guidance is to prevent the risk of biological invasion of alien organisms crossing the borders of national jurisdiction and distinct biogeographic areas through the unintentional introduction pathways described in the CBD pathway categorization in association with trade in live species.^{6,7}

3. This guidance is relevant to States, relevant organizations, industry and consumers, including all actors involved in the entire value chain of trade in live species (e.g. exporters, importers, breeders, including amateur collectors, participants of exhibitions, and wholesalers, retailers and customers). For the case of live food trade, the persons involved in the value chain include individuals in the business of restaurants and food markets.

I. SCOPE

4. This guidance is voluntary and intended to be used in conjunction with, and be mutually supportive to, other relevant guidance, for example: the Guiding Principles for the Prevention, Introduction and Mitigation of Impacts of Alien Species that Threaten Ecosystems, Habitats and Species (decision VI/23);³³ the International Standards for Phytosanitary Measures (ISPMs); the Terrestrial Animal Health Code and the Manual of Diagnostic Test and Vaccines for Terrestrial Animals of the World Organisation for Animal Health (OIE); the OIE Aquatic Animal Health Code and the Manual of Diagnostic Tests for Aquatic Animals and other standards and guidance developed by relevant international organizations.

5. This guidance also describes integrated processes for its implementation together with the guidance annexed to decision [XII/16](#) and existing international standards set for the protection of the health of animals, plants and humans.

6. This guidance can be implemented by Parties and other Governments with cross-sectoral collaboration among conservation authorities, border control authorities, and risk regulatory bodies relevant to international trade as well as relevant industries and consumers who are involved in the value chain of trade in live species.

³³ One representative of a Party entered a formal objection during the process leading to the adoption of this decision and underlined that he did not believe that the Conference of the Parties could legitimately adopt a motion or a text with a formal objection in place. A few representatives expressed reservations regarding the procedure leading to the adoption of this decision (see UNEP/CBD/COP/6/20, paras. 294-324).

II. MEASURES TO REDUCE THE RISK OF BIOLOGICAL INVASIONS POSED BY ALIEN ORGANISMS MOVING UNINTENTIONALLY IN PATHWAYS ASSOCIATED WITH TRADE IN LIVE SPECIES

A. Conformity with existing international standards and other guidance relevant to invasive alien species

7. For all animals or animal products contained in a consignment of live species, the appropriate sanitary standards developed through the standard-setting processes of the World Organisation for Animal Health should be used to harmonize national measures, in both exporting and importing countries.

8. For all plants or plant products contained in a consignment of live species, the appropriate phytosanitary standards developed through the standard-setting processes of the Secretariat of the International Plant Protection Convention should be used to harmonize national measures in both exporting and importing countries.

9. A sender/exporter of live species should demonstrate that the commodity being exported (live species) poses no risk to the importer. This may be communicated to the national border authority of importing country by presenting a certificate issued by the exporting veterinary authority/competent authority for animals, or by presenting a phytosanitary certificate issued by the exporting national plant protection organization for plants in an exporting country, in accordance with national import regulations, which are based on pest risk analysis.

10. Carrier conveyances for consignments of live species should meet existing international guidance established under international organizations, such as the Code of Practice for Packing of Cargo Transport Units (CTU Code) of the International Maritime Organization/International Labour Organization/United Nations Economic Commission for Europe,³⁴ but should not be limited to this.

B. Responsible preparation of consignments of live species

11. A sender/exporter of live species should be fully aware of the potential risks of biological invasions resulting from the movement of the alien organisms through unintentional pathways associated with trade in live species and should ensure: (a) that a consignment meets sanitary and phytosanitary requirements set by an importing country; and (b) measures to minimize the risk of unintentional introductions are applied.

12. A sender/exporter of a consignment of live species shall inform the importer of the potential risks of biological invasion by alien organisms on a label and/or a document attached to the consignment containing live species, addressed to the border control authorities, national plant protection organizations or veterinary authorities. In some cases, this information should be presented to the competent authorities in the country or countries of transit, in order to allow the adoption of appropriate risk management measures during transit.

13. A sender/exporter of live species should apply all appropriate sanitary and phytosanitary measures to ensure that the live species are shipped free of pests, pathogenic agents and alien organisms which may carry risks of biological invasions in an importing country or biogeographic areas receiving them.

C. Packing containers/consignment

14. Hazard labelling may be affixed to each consignment, when applicable and appropriate, by a sender/exporter, considering the potential risk of biological invasions of alien organisms moving through unintentional pathways, especially when the live species were captured or collected from the wild, to inform the persons involved in the entire value chain of the potential risks to biodiversity.

15. Packing material or containers associated with the movement of live species should be free of pests, pathogenic agents and invasive alien organisms which are of concern to the importing country or

³⁴ https://www.unece.org/fileadmin/DAM/trans/doc/2014/wp24/CTU_Code_January_2014.pdf

biogeographic areas receiving them. If the packing material is made from wood, appropriate treatment described in ISPM 15 (Regulation of wood packaging material in international trade) should be applied. Efforts should be made to ensure that the packing material and/or containers are free of invasive alien organisms.

16. If a packing container is to be reused, it should be washed and disinfected by a sender/exporter prior to shipping and visually inspected prior to reusing.

17. Packing containers for aquatic species should be free of pests, pathogenic agents and invasive alien organisms which are of concern to an importing country or biogeographic areas receiving them, and closed appropriately by a sender/exporter to prevent leaks of water(s) and/or contamination into or from the consignment during the transport of the entire value chain by the individuals handling the packing containers.

D. Materials associated within packing containers

18. A sender/exporter of live species should ensure that, prior to shipping, animal bedding is treated with appropriate method(s) to ensure that it is free of pests, pathogenic agents and invasive alien organisms which are of concern to an importing country or biogeographic areas receiving them.

19. Water(s) for aquatic live species and any associated media to be used during transport should be free of pests, pathogenic agents and alien organisms which are of concern to an importing country or biogeographic areas receiving them and should be treated as required.

20. Air and air supplying devices associated with consignments of aquatic species should be free of pests, pathogenic agents and alien organisms which are of concern to an importing country or biogeographic areas receiving them.

21. Any soil or soil-related materials associated with the transport of live species should be eliminated by a sender/exporter prior to shipping. If soil or soil-related materials cannot be eliminated from the packing containers, the sender/exporter should consult the import regulations of the national plant protection organization of the importing country and comply with them.

E. Feed or food for live animals

22. A sender/exporter of live species should ensure that any feed or food contained in a consignment does not consist of viable seeds, parts of plants or animals that maintain the potential of establishment at the destination. Senders/exporters should ensure that the feed or food is free of pests, pathogenic agents and invasive alien organisms which are of concern to an importing country or biogeographic areas receiving them.

F. Treatment of by-products, waste, waters and media

23. By-products and waste produced during the transport of live species should be removed from the consignment on arrival in the receiving country. The recipient of the consignment should apply appropriate treatment, including disinfection,³⁵ incineration, rendering, autoclaving, or other measures on packing containers, other associated materials, by-products and waste prior to their disposal to minimize the risks of biological invasions of alien organisms.

G. Condition of carrier conveyances

24. If live species or a consignment of live species is expected to be loaded or has been previously loaded, the owners and operators of the carrier conveyances should ensure that the conveyances are washed, disinfected or otherwise appropriately treated. The owners of carrier conveyances should take responsible measures to apply the treatment immediately upon the arrival of a carrier conveyance at a destination and maintain the treated condition until the next use.

³⁵ Disinfection means the application, after thorough cleansing, of procedures intended to destroy the infectious or parasitic agents of animal diseases, including zoonoses; this applies to premises, vehicles and different objects which may have been directly or indirectly contaminated ([OIE Terrestrial Animal Health Code](#)).

25. Prior to an operation, a carrier conveyance should be inspected to determine its sanitary and phytosanitary condition to ensure that unintentional introduction of pests, pathogenic agents and invasive alien organisms is minimized.

26. In the event of escape of live species, accidental spillage or leaks from a consignment, the owner and operators of the carrier conveyance should take necessary measures to recapture and contain the live species and alien organisms attached to them. The owners and operators of carrier conveyances should wash the carrier conveyance and disinfect or treat it appropriately, and inform relevant national authorities in the affected country (country of transit or destination) about the nature of the escape, spillage or leak and the measures taken by the owners or operators of the carrier conveyance.

H. Role of States and national authorities in relation to invasive alien species

27. States that receive live species should keep records of all consignments containing live species, with regard to information on exporters, importers, taxa of commodity at the species level or possibly the lowest known taxonomic rank, and the health status of the animal and the phytosanitary conditions of the plant.

28. States should apply appropriate national border risk management measures in accordance with existing international guidance to minimize the risk of unintentional introduction of invasive alien organisms.

29. When invasive alien organisms unintentionally enter or become established, relevant offices, including conservation authorities, should be notified, including, as appropriate, the veterinary authority/competent authority and the national plant protection organization, to ensure that the exporting or re-exporting country is informed of the event in order to prevent the further spread of the invasive alien species.

30. States, in collaboration with relevant organizations, should make information available to the public on: (a) import requirements for trade in live species designed to prevent the unintentional introduction of alien organisms associated with trade in live species; (b) the presence of an invasive alien species as a result of unintentional introduction; and (c) results of pathway risk analysis, if they have been undertaken.

31. States that receive live species should raise awareness of the risk of biological invasions posed by trade in live species, including unintentional introduction of pests, pathogenic agents and invasive alien organisms to persons involved in the entire value chain. This includes awareness-raising campaigns directed at the public and potential operators (amateur breeders, etc.). Such campaigns can be organized by States, subnational governments, relevant organizations or any industry involved in the value chain.

I. Monitoring

32. States should conduct monitoring of invasive alien organisms which can unintentionally arrive in their territories, particularly in susceptible areas (e.g. ports, cross-docking and warehousing facilities, off-dock container yards, connected roads and railways) where their entry, establishment and early stage of spreading may occur.

33. When unintentional introduction in susceptible areas is observed, States should intensify the monitoring of invasive alien organisms in nearby areas where there are concerns about protecting biodiversity, and rapid responses to contain, control and eradicate the invasive alien organisms should be taken. Where information is available, efforts should be made to communicate this to the public, including countries concerned about unintentional introduction.

34. States should monitor in-country movement and spread of invasive alien organisms introduced unintentionally with the import of live species in collaboration with subnational or local authorities in order to minimize the impact of invasive alien species and their spread.

J. Other measures

35. Any national risk management measures regarding unintentional introduction pathways in exporting and importing countries, and codes of conduct set by international bodies related to shipping and delivery services, may apply within the scope of this supplemental guidance.

Annex II

TERMS OF REFERENCE FOR THE AD HOC TECHNICAL EXPERT GROUP ON INVASIVE ALIEN SPECIES

1. The Ad Hoc Technical Expert Group shall undertake assessments on:
 - (a) Methods for cost-benefit and cost-effectiveness analysis which best apply to the management of invasive alien species;
 - (b) Risks of biological invasions posed by alien species sold via e-commerce and the impacts thereof;
 2. The Ad Hoc Technical Expert Group shall develop elements of technical guidance on:
 - (a) Management of invasive alien species, taking into account new potential risks arising from climate change and associated natural disasters and land use changes;
 - (b) Risk analysis, taking into account the potential consequences of the introduction of invasive alien species on social, economic and cultural values;
 - (c) Classification of hazardous alien species and its relevant risk communication elements.
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