CONVENCIÓN SOBRE EL COMERCIO INTERNACIONAL DE ESPECIES AMENAZADAS DE FAUNA Y FLORA SILVESTRES

Sesiones conjuntas de la 33ª reunión del Comité de Fauna y de la 27ª reunión del Comité de Flora
Ginebra (Suiza), 12 - 13 de julio de 2024

Reglamentación del comercio

Exenciones y disposiciones especiales al comercio

EXAMEN DE LAS DISPOSICIONES DE LA CITES RELACIONADAS CON EL COMERCIO DE ESPECÍMENES DE ANIMALES Y PLANTAS DE ORIGEN NO SILVESTRE

1. El presente documento ha sido presentado por los Copresidentes del Grupo de trabajo conjunto entre períodos de reuniones del Comité Permanente sobre el *Examen de las disposiciones de la CITES relacionadas con el comercio de especímenes de animales y plantas de origen no silvestre*.[*]

2. En su 19ª reunión (CoP19, Ciudad de Panamá, 2022), la Conferencia de las Partes adoptó las Decisiones 19.179 y 19.180 sobre *Examen de las disposiciones de la CITES relacionadas con el comercio de especímenes de animales y plantas de origen no silvestre,* como sigue:

Dirigida al Comité Permanente, en consulta con el Comité de Fauna y el Comité de Flora

19.179 *El Comité Permanente deberá:*

a) en consulta con el Comités de Fauna y de Flora, elaborar un mandato específico que incluya un modus operandi y una hoja de ruta, según proceda, para orientar la continuación del examen del comercio de especímenes tanto de animales como de plantas incluidos en los Apéndices de la CITES que no sean de origen silvestre;

b) seguir examinando las enmiendas a las Resoluciones Conf. 10.16 (Rev. CoP19) y Conf. 12.3 (Rev. CoP19), así como cualquier enmienda de otras Resoluciones relativas a las disposiciones sobre el comercio de especímenes de origen no silvestre de especies tanto de animales como de plantas incluidas en los Apéndices de la CITES, teniendo en cuenta las conclusiones y sugerencias que figuran en el documento SC74 Doc. 56 y las observaciones y recomendaciones correspondientes del Comité Permanente, las Partes, la Secretaría u otras partes interesadas;

c) examinar las cuestiones y desafíos en la aplicación de la Convención al comercio de especímenes no silvestres de especies tanto de animales como de plantas incluidas en los Apéndices de la CITES, en particular los elementos clave que pueden contribuir a la aplicación diferenciada de los párrafos 4 y 5 del Artículo VII, y considerar el asesoramiento científico y las orientaciones de los Comités de Fauna y de Flora sobre la necesidad de aplicar estos Artículos de manera diferente para los especímenes de especies animales criadas en cautividad o los especímenes de especies vegetales reproducidas artificialmente; y

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[*] *Las denominaciones geográficas empleadas en este documento no implican juicio alguno por parte de la Secretaría CITES o del Programa de las Naciones Unidas para el Medio Ambiente sobre la condición jurídica de ninguno de los países, zonas o territorios citados, ni respecto de la delimitación de sus fronteras o límites. La responsabilidad sobre el contenido del documento incumbe exclusivamente a su autor.*

d) formular recomendaciones para abordar esas cuestiones y desafíos, inclusive enmiendas a las resoluciones existentes o preparar una nueva resolución o decisiones para abordar esas cuestiones y desafíos, para su consideración en la 20ª reunión de la Conferencia de las Partes.

Dirigida a los Comités de Fauna y de Flora

19.180 *A fin de apoyar al Comité Permanente en la aplicación de la Decisión 19.179, los Comités de Fauna y de Flora deberán, por separado y conjuntamente, en su sesión conjunta:*

a) considerar los elementos clave en la aplicación actual de los párrafos 4 y 5 del Artículo VII para los animales y las plantas, respectivamente, en las resoluciones existentes;

b) determinar si es preciso aplicar los párrafos 4 y 5 del Artículo VII diferentemente para los especímenes animales de especies criadas en cautividad o los especímenes de plantas reproducidos artificialmente que las contenidas en las resoluciones existentes, y formular sus recomendaciones al Comité Permanente a tiempo para su 78ª reunión; y

c) proporcionar cualquier otro asesoramiento y orientación científicos sobre las disposiciones de la CITES relacionadas con el comercio de especímenes de origen no silvestre de especies de animales y plantas incluidas en los Apéndices de la CITES al Comité Permanente previa solicitud y según proceda.

3. En la 26ª reunión del Comité de Flora (PC26; Ginebra, junio de 2023) y la 32ª reunión del Comité de Fauna (AC32; Ginebra, junio de 2023), los Comités examinaron el documento PC26 Doc. 23 / AC32 Doc. 25 preparado por las Presidencias de los Comités de Fauna y de Flora. Canadá, en su calidad de Presidencia del Grupo de trabajo entre períodos de sesiones del Comité Permanente sobre el comercio de especímenes de origen no silvestre (GTPS-CP), proporcionó información actualizada sobre las actividades de dicho grupo tanto a la reunión PC26 como a la reunión AC32 y señaló a la atención del Comité el documento de información AC32 Inf. 5 / PC26 Inf. 2 en el que figura un proyecto de hoja de ruta para un examen de las disposiciones de la CITES relacionadas con el comercio de especímenes de animales y plantas de origen no silvestre que está siendo examinado y debatido por el GTPS-CP.

4. Los Comité de Flora y de Fauna establecieron grupos de trabajo entre períodos de sesiones para trabajar por separado y conjuntamente con el mandato de (véanse las actas resumidas PC26 SR y AC32 SR):

   a) considerar los elementos clave en la aplicación actual de los párrafos 4 y 5 del Artículo VII para los animales y las plantas, respectivamente, en las resoluciones existentes;

   b) determinar si es preciso aplicar los párrafos 4 y 5 del Artículo VII diferentemente para los especímenes animales de especies criadas en cautividad o los especímenes de plantas reproducidos artificialmente que las contenidas en las resoluciones existentes, y formular sus recomendaciones al Comité Permanente a tiempo para su 78ª reunión;

   c) proporcionar cualquier otro asesoramiento y orientación científicos sobre las disposiciones de la CITES relacionadas con el comercio de especímenes de origen no silvestre de especies de animales y plantas incluidas en los Apéndices de la CITES al Comité Permanente previa solicitud y según proceda; e

   d) informar sobre los progresos realizados a las sesiones conjuntas de la 33ª reunión del Comité de Fauna y la 27ª reunión del Comité de Flora.

5. Se acordó que el grupo de trabajo estuviera integrado por:

Presidencia para el AC:	representante de América del Norte (Sr. Benítez Díaz);
Presidencia para el PC:	representante de Oceanía (Sr. Wrigley);
Miembros AC:	representante para Europa (Sr. Benyr)
Partes:	Alemania, Australia, Brasil, Canadá, China, Colombia, Estados Unidos de América, Federación de Rusia, India, Malasia, México, Perú, República de

Corea, Sudáfrica, Reino Unido de Gran Bretaña e Irlanda del Norte, Unión Europea; y

OIG y ONG: Organización de las Naciones Unidas para la Alimentación y la Agricultura, Programa de las Naciones Unidas para el Medio Ambiente – Centro de Monitoreo de la Conservación Mundial, Asociación de Zoológicos y Acuarios, Euromed, European Pet Organisation, IWMC-World Conservation Trust, Organization of Professional Aviculturists, Ornamental Fish International, Parrot Breeders Association of Southern Africa, Red por la Supervivencia de las Especies, Sustainable Users Network, TRAFFIC, Sociedad para la Conservación de la Vida Silvestre, Fondo Mundial para la Naturaleza.

6. El grupo de trabajo entre períodos de sesiones de los Comités de Fauna y de Flora (GTPS conjunto) trabajó por medios electrónicos para dar cumplimiento a su mandato. Los Copresidentes recordaron al GTPS conjunto que los Comités de Fauna y de Flora prestarán apoyo al GTPS-CP identificando los riesgos para la conservación relacionados con el comercio de especímenes de origen no silvestre, las medidas de mitigación aplicables y los supuestos en los que se basan dichas medidas de mitigación, así como las posibles diferencias entre los animales criados en cautividad y las plantas reproducidas artificialmente. El GTPS conjunto también debería identificar las esferas en las que es posible mejorar la claridad y la coherencia dentro de las resoluciones actuales de la CITES, si procede.

7. Los Copresidentes compartieron un cuestionario con el GTPS conjunto y solicitaron a la Secretaría que publicara una Notificación a las Partes para transmitir el cuestionario a todas las Partes. La Secretaría publicó la Notificación a las Partes No 2024/021 el 17 de enero de 2024 con el cuestionario incluido como anexo. La fecha límite para responder al cuestionario era el 23 de febrero de 2024. Se recibieron respuestas de 12 Partes (Alemania, Australia, Austria, Canadá, China, Colombia, España, Estados Unidos de América, Indonesia, México, Sudáfrica y Suecia), la Organización de las Naciones Unidas para la Alimentación y la Agricultura (FAO), la Unión Internacional para la Conservación de la Naturaleza (UICN) y 9 organizaciones no gubernamentales [Animal Welfare Institute (AWI), Born Free Foundation (BFF), Defenders of Wildlife, ProWildlife, Red por la Supervivencia de las Especies (SSN), International Wildlife Management Consortium (IWMC), Ornamental Aquatic Trade Association (OATA), TRAFFIC y Fondo Mundial para la Naturaleza (WWF)].

8. Los Copresidentes estudiaron las respuestas recibidas y prepararon los dos documentos siguientes, que compartieron con el GTPS conjunto y con la Copresidencia del GTPS-CP:

   a) Anexo 1: Resúmenes consolidados de las respuestas a las preguntas compartidas con el GTPS conjunto y a través de la Notificación.

   b) Anexo 2: Aspectos científicos/asesoramiento a considerar por el grupo de trabajo entre período de sesiones del Comité Permanente.

9. Las respuestas consolidadas recibidas figuran en el anexo 3 del presente documento y podrían ser de interés para los Comités de Fauna y de Flora, así como para el GTPS-CP, ya que contienen información detallada, incluidos ejemplos concretos.

Recomendaciones

10. Se invita a los Comités de Fauna y Flora a:

    a) considerar la información proporcionada en el presente documento y sus anexos;

    b) proporcionar el asesoramiento científico que figura en el anexo 2 al Comité Permanente a través de su Grupo de trabajo entre períodos de sesiones sobre el *Examen de las disposiciones de la CITES relacionadas con el comercio de especímenes de animales y plantas de origen no silvestre*; y

    c) acordar que la Decisión 19.180 ha sido aplicada y recomendar su supresión a la 20ª reunión de la Conferencia de las Partes.

GRUPO DE TRABAJO CONJUNTO ENTRE PERÍODOS DE SESIONES DE LOS COMITÉS DE FAUNA Y DE FLORA: ESPECÍMENES DE ORIGEN NO SILVESTRE
RESÚMENES CONSOLIDADOS

a) En su país, ¿el riesgo para la conservación de las poblaciones silvestres relacionado con el comercio de especímenes de animales o plantas de origen no silvestre es menor, mayor o similar al relacionado con el comercio de especímenes silvestres?

i) ¿Por qué varía el riesgo para la conservación?

Resumen

El consenso parece inclinarse hacia un riesgo potencialmente menor cuando se aplican prácticas y sistemas sólidos, pero con cierta cautela para no generalizarlo a todas las especies y circunstancias. Si bien hay ejemplos de éxito en la reducción de riesgos mediante el comercio de especímenes de origen no silvestre, también hay retos como el posible blanqueo, marcos normativos inadecuados y repercusiones variables en función de la especie y las condiciones locales que hacen necesario evaluar cada caso individualmente.

Algunos países y organizaciones indicaron que el riesgo es **menor de manera general** cuando se trata de comercio con especímenes de origen no silvestre. Se hizo referencia a sistemas normativos sólidos y a programas de cría en cautividad exitosos que alivian la presión sobre las poblaciones silvestres. Además, los beneficios económicos podrían eliminar la presión que representan las extracciones en poblaciones silvestres lo que puede conducir a la recuperación de las poblaciones en el medio silvestre.

Otros indicaron que el riesgo puede ser similar o variar en función de la especie y la situación. Mediante prácticas de gestión y regulación también se podrían garantizar que el comercio de especímenes silvestres conlleve un riesgo para la conservación similar al del comercio de especímenes de origen no silvestre. El riesgo podría variar dependiendo de la especie de que se trate, incluyendo en función de las características biológicas intrínsecas de la especie y de si se trata de una especie nativa / autóctona. Se puede considerar que el riesgo es bajo si se trata de una especie nativa / autóctona comúnmente criada / reproducida artificialmente. En cambio, el riesgo puede aumentar con la dificultad de criar/cultivar la especie y/o si la especie es rara en el medio silvestre.

Al menos una Parte indicó que puede ser difícil determinar el impacto en las poblaciones silvestre si los datos / la información son limitados.

Algunas Partes destacaron que, aunque el comercio de especímenes no silvestres puede reportar beneficios, como la reducción de la presión en las poblaciones silvestres y el apoyo a la recuperación de las especies, el impacto real varía mucho en función de las circunstancias específicas y las prácticas de gestión.

Las partes también indicaron que es difícil generalizar los niveles de riesgo, ya que dependen en gran medida de condiciones y normativas específicas, e insistieron en la necesidad de realizar evaluaciones caso por caso.

Algunas organizaciones advirtieron que, en algunos casos, el riesgo puede ser mayor, especialmente cuando se utilizan especímenes criados en cautividad o reproducidos artificialmente para blanquear especímenes capturados en el medio silvestre o cuando tales prácticas aumentan indirectamente la demanda de especímenes silvestres.

El nivel de riesgo para la conservación relacionado con el comercio de especímenes de origen no silvestre está vinculado a las siguientes cuestiones:

- *Medidas de gestión, regulación y observancia*: Todas las Partes subrayaron la importancia de las medidas de gestión y la regulación, incluyendo en relación con el establecimiento del plantel fundador, el tratamiento de la diversidad genética y la supervisión, así la aplicación efectiva de las medidas de regulación a fin de reducir el riesgo para las poblaciones silvestres.
- *Beneficios del comercio para la conservación*: De manera general, las Partes reconocieron que el comercio de especímenes procedentes de la cría en cautividad / la reproducción artificial puede tener beneficios para la conservación, especialmente cuando se vincula con iniciativas de conservación *in situ* en los países del área de distribución de la especie.
- *Trazabilidad*: Algunas Partes y organizaciones destacaron la importancia de contar con sistemas de trazabilidad eficaces para garantizar que los especímenes proceden de la cría en cautividad / la reproducción artificial y no son de origen silvestre.
- *Datos vinculados a la gestión y la supervisión:* Algunas Partes indicaron que si faltan datos, o si el comercio no está bien regulado o supervisado, es difícil determinar si el riesgo es mayor, menor o similar y se necesita más información para hacer una evaluación adecuada.

a) En su país, ¿el riesgo para la conservación de las poblaciones silvestres relacionado con el comercio de especímenes de animales o plantas de origen no silvestre es menor, mayor o similar al relacionado con el comercio de especímenes silvestres?

i) ¿Por qué varía el riesgo para la conservación?

- *Especies no autóctonas:* Algunas Partes mencionaron que, en el caso del comercio de especies no autóctonas, es posible que las Partes sean prudentes debido a riesgos como la transmisión de patógenos o problemas de especies invasoras.
- *Beneficios económicos y demanda:* Varias Partes reconocieron los beneficios económicos del comercio, pero se entiende que es preciso controlar la demanda para evitar la sobreexplotación (comprensión de la dinámica de la demanda del comercio).
- *Riesgo de blanqueo:* Algunas organizaciones expresaron su preocupación en relación con el blanqueo de especímenes capturados en el medio silvestre / de origen silvestre a través de establecimientos de cría en cautividad / reproducción artificial, y destacaron la necesidad de sistemas eficaces de trazabilidad y seguimiento.
- *Evaluación caso por caso:* La complejidad de los riesgos para la conservación requiere evaluaciones caso por caso para comprender adecuadamente el impacto del comercio en las poblaciones silvestres, ya este que depende de diversos factores, entre ellos el estado de conservación de la especie, así como de las características específicas de su ciclo biológico y de la facilidad, el esfuerzo y el coste con que pueda criarse en cautividad o reproducirse artificialmente.

Consideraciones específicas para las plantas:

- Gran volumen de comercio de especímenes reproducidos artificialmente / cultivados – implicaciones positivas para los especímenes silvestres (incluyendo cuando la recolección en el medio silvestre está prohibida).
- Dificultades para determinar el nivel de riesgo para la conservación cuando el comercio solo tiene lugar con especímenes reproducidos artificialmente.
- Riesgo de actividades fraudulentas, como el blanqueo de plantas de origen silvestre como reproducidas artificialmente, sobre todo en el caso de especies cultivadas menos frecuentemente o cuyo cultivo es difícil y no está bien establecido. Esto podría provocar un aumento de la demanda de material silvestre, ya que los operadores comerciales podrían declararlo como cultivado para eludir las restricciones legales.
- Las preocupaciones incluyen la posibilidad de blanqueo de plantas silvestres a través de viveros que comercian con plantas reproducidas artificialmente, especialmente las incluidas en el Apéndice II, que tienen menos supervisión en comparación con las especies del Apéndice I. La falta de capacidad y recursos adecuados para controlar los viveros y los cultivadores repercute en los riesgos para la conservación relacionados con dicho comercio. Además, se mencionó la demanda de especímenes silvestres con características únicas que no puede satisfacerse mediante especímenes reproducidos artificialmente.
- También se señalaron preocupaciones en relación con la recolección ilegal y la necesidad de exenciones que no perjudiquen a las poblaciones silvestres.

Consideraciones específicas para los animales:

- Éxito de los programas de recuperación de especies que se beneficiaron de los programas de cría en cautividad.
- El papel de los establecimientos de cría para satisfacer la demanda comercial, que pueden reducir el riesgo para las poblaciones silvestres. Sin embargo, también se advirtió sobre los posibles riesgos cuando los establecimientos de cría dependen del suministro continuo procedente de poblaciones silvestres o no son económicamente viables, lo que podría impulsar aún más la demanda de especímenes silvestres.
- Preocupación por las especies de alto valor cuya cría en cautividad es costosa. La eficacia de la cría en cautividad como herramienta de conservación puede verse comprometida si no es económicamente viable o si aumenta la demanda de especímenes capturados en el medio silvestre.
- Control de los animales criados en cautividad, centrándose en garantizar que estos especímenes cumplan criterios estrictos y evitar que se utilicen para el blanqueo de especímenes de origen silvestre.
- Se destacaron los riesgos relacionados con la liberación involuntaria de especímenes criados en cautividad, entre ellos el escape de especies invasoras y la propagación de enfermedades de las poblaciones cautivas a las silvestres.
- Se señalaron preocupaciones en relación con la liberación intencional en el medio natural de especímenes criados en cautividad. La liberación intencional a gran escala en el medio natural de especímenes criados en cautividad podría no ser beneficiosa para la conservación de la especie debido a las diferencias genéticas y de comportamiento con respecto a las poblaciones silvestres y podría tener un impacto en otras especies autóctonas.

a) iii) Factores que pueden influir en la diferencia en el riesgo para la conservación

Resumen

Los factores que pueden influir en el riesgo para la conservación incluyen aspectos biológicos, normativos, económicos y operativos. Factores clave mencionados:

- *Especies:* El estado de conservación de la especie y sus características biológicas, incluida la fecundidad, la duración de las generaciones, la recuperación, las tasas de reproducción en cautividad/reproducción artificial, la rareza de la especie, la capacidad de reproducirse en cautividad o de reproducirse artificialmente, la resiliencia general, la resistencia a las enfermedades y las presiones/amenazas externas.
- *Tipo de espécimen*: El comercio de semillas y plántulas presenta un riesgo menor que el comercio de plantas adultas. La capacidad de distinguir entre especímenes criados en cautividad/reproducidos artificialmente y especímenes de origen silvestre (trazabilidad) es esencial.
- *Posibles incentivos contraproducentes:* El comercio de especímenes que podrían extraerse de forma sostenible de poblaciones silvestres pero que solo proceden de poblaciones cautivas (en algunos casos fuera del Estado del área de distribución) reduce los incentivos para la conservación de la especie en su hábitat nativo.
- *Estado de la especie:* Si se requieren extracciones regulares para alimentar los sistemas de producción, el riesgo podría aumentar.
- *Sistemas y métodos de producción:* Los sistemas de producción bien gestionados que cumplen las normas reglamentarias pueden reducir el riesgo para la conservación y ayudar a mitigar los riesgos relacionados con la introducción ilegal de especímenes silvestres, los escapes y la transmisión de enfermedades. Desafíos específicos del cultivo e impactos económicos relacionados con diferentes especies de plantas, en los casos en los que la producción no satisface la demanda, aumentando potencialmente la presión sobre las poblaciones silvestres.
- *Cumplimiento de la normativa y supervisión:* La regulación y la supervisión efectivas son esenciales. Se hizo hincapié en la necesidad de distinguir entre especímenes criados en cautividad / reproducidos artificialmente y especímenes silvestres.
- Factores económicos: La viabilidad económica de la cría o el cultivo de especímenes influye en el riesgo para la conservación. Los elevados costes relacionados con la cría en cautividad pueden aumentar la presión en las poblaciones silvestres si los especímenes criados en cautividad son demasiado caros para el mercado. El aumento de los costes de mantenimiento podría provocar que se abandonen las plantaciones comerciales, lo que repercutiría negativamente en las poblaciones silvestres. Si aumentan los costes para producir especímenes de origen no silvestre y el precio de los especímenes no cubre los gastos, esto podría dar lugar a la extracción de especímenes silvestres.
- *Demanda y dinámica del mercado:* La demanda de especies o especímenes específicos repercute en el riesgo para la conservación pues influye en la presión sobre las poblaciones silvestres. Una demanda elevada que supere la capacidad de suministro de especímenes criados en cautividad o reproducidos artificialmente puede dar lugar a un aumento de las extracciones de especímenes silvestres y, en algunos casos, la demanda es de especímenes silvestres y no de especímenes criados en cautividad o reproducidos artificialmente. Los beneficios económicos y sociales derivados de los especímenes no silvestres también pueden promover medidas para la conservación y reducir las extracciones en el medio silvestre.
- Riesgos genéticos y sanitarios Una de las preocupaciones planteadas es la posible transferencia de material genético o patógenos no locales de especímenes criados en cautividad o reproducidos artificialmente a poblaciones silvestres. Estos riesgos exigen controles estrictos de los métodos de producción y disposición.
- *Incentivos para las comunidades locales:* La implicación de las comunidades locales en las prácticas de conservación es crucial. Los medios de subsistencia sostenibles que se basan en prácticas responsables de cría y recolección pueden apoyar tanto las economías locales como los esfuerzos de conservación.

Consideraciones específicas para las plantas:

- Riesgos y consideraciones genéticas y sanitarias: Se señalaron preocupaciones en relación con la posibilidad de que los sistemas de producción madereros transfieran material genético no local o patógenos transmitidos por semillas a las poblaciones silvestres. Esto podría alterar la diversidad genética de las especies autóctonas e introducir enfermedades que podrían afectar la salud de las especies silvestres y los ecosistemas de los que forman parte.
- Sistemas de producción y sostenibilidad: Existen desafíos relacionados con la producción sostenible de ciertas especies vegetales: algunas especies se recolectan principalmente en el medio silvestre para obtener los especímenes destinados al comercio (por ejemplo, derivados tales como la cera), siendo insuficiente la producción de las plantaciones para satisfacer la demanda internacional.
- Desafíos en relación con la reproducción y el cultivo: En algunos casos, la producción a nivel comercial se centra en especies de fácil reproducción, las que representan un riesgo y son de difícil reproducción no satisfacen las demandas de producción. De ahí la necesidad de recurrir a técnicas biotecnológicas modernas, como la microreproducción, para producir esas especies (por ejemplo, ciertos cactus) de forma intensiva, garantizando un suministro constante y, posiblemente, aliviando la presión en las poblaciones silvestres.

a) iii) Factores que pueden influir en la diferencia en el riesgo para la conservación

- Impactos económicos y demanda del mercado: Se mencionan como factores cruciales la viabilidad económica de las plantaciones y sus costes de mantenimiento a largo plazo. Por ejemplo, las plantaciones de cedros pueden verse abocadas al abandono debido al aumento de los costes de mantenimiento, lo que puede repercutir negativamente en las poblaciones silvestres, ya que es difícil diferenciar entre las especies reproducidas artificialmente y las silvestres cuando coexisten en la misma zona.
- Riesgo de recolección y blanqueo: El tipo de especímenes objeto de comercio influye en el riesgo para la conservación, ya que el comercio de semillas y plántulas plantea un riesgo menor que el de plantas adultas, cuya producción requiere más tiempo. El riesgo de recolección y blanqueo de plantas silvestres como plantel parental para el comercio es especialmente elevado en el caso de las especies de crecimiento lento.

Consideraciones específicas para los animales:

- Los factores enumerados más arriba
- Los costes de la cría en cautividad y requisitos para la cría: Mayor inversión, en términos de alimentación, hábitats, servicios veterinarios, pago de personal. Si aumentan los costes, puede haber presiones para capturar especímenes silvestres. Cuanto más complejas sean las necesidades de la especie (por ejemplo, en cuanto a espacio, condiciones climáticas, factores que activan la reproducción, comportamiento social, etc.), más difícil será su reproducción a gran escala.

b) ¿Observa una diferencia en el riesgo para la conservación de las poblaciones silvestres cuando compara la cría en cautividad o la reproducción artificial *in situ* (y el comercio posterior) con la cría en cautividad o la reproducción artificial *ex situ* (y el comercio posterior)?

Resumen

- Algunas Partes indicaron que era necesario aclarar lo que constituye cría en cautividad / reproducción artificial *in situ* y *ex situ*.
- En lo que respecta a la cría en cautividad / propagación artificial *in situ*, algunas Partes y observadores destacaron lo siguiente:
    - Los riesgos para la conservación de las poblaciones silvestres incluyen la transferencia de material genético a las mismas a partir de especímenes criados en cautividad o reproducidos artificialmente que han sido seleccionados genéticamente para obtener rasgos específicos.
    - En el caso de las especies autóctonas, también existe el riesgo de blanqueo de especímenes silvestres en los establecimientos de cría, por lo que se necesitan medidas de mitigación. Los establecimientos pueden depender de la suplementación regular con especímenes silvestres y pueden ser propensas al blanqueo de especies silvestre si no se controlan y regulan adecuadamente.
    - Se debe utilizar material de reproducción autóctono para conservar los genotipos locales y evitar la sustitución y la hibridación.
    - La cría en cautividad / la reproducción artificial *in situ* podrían apoyar los medios de subsistencia y la conservación del hábitat.
- Algunas Partes plantearon las siguientes preocupaciones en relación con los sistemas *ex situ* (no autóctonos): las especies invasoras, los vectores de patógenos / la perturbación del ecosistema podrían ser motivo de preocupación (tanto en términos de liberación intencionada como no intencionada en el medio natural).
- Los establecimientos de cría en granjas pueden apoyar la conservación de los hábitats silvestres y mejorar el estado de conservación de las especies respectivas.
- Ambos sistemas podrían apoyar la reintroducción, la repoblación / la suplementación de la población, la recuperación de las poblaciones silvestres.
- La cooperación entre sistemas *in situ* / *ex situ* podría reforzar los beneficios. La investigación en relación con sistemas *ex situ* podría mejorar el conocimiento de la especie, pero puede haber una desconexión con los esfuerzos para la conservación de las poblaciones silvestres (especialmente cuando el sistema *ex situ* no se encuentra en el Estado del área de distribución).
- Probablemente sea específico para cada especie y para cada caso.
- Se presentaron algunos ejemplos en los que no hay diferencia en el riesgo para la conservación de las poblaciones silvestres al comparar la reproducción artificial *in situ* y la *ex situ* (y el comercio subsiguiente)
- *In-situ en comparación con ex-situ*: Ambos sistemas tienen sus riesgos y beneficios; la cría en cautividad o la reproducción artificial *in-situ* puede apoyar la conservación al mantener las condiciones naturales y la diversidad genética, pero puede dar lugar a intercambios genéticos o a la transferencia de enfermedades a las poblaciones silvestres. La cría en cautividad o la reproducción artificial *ex situ* proporciona un entorno controlado que minimiza

b) ¿Observa una diferencia en el riesgo para la conservación de las poblaciones silvestres cuando compara la cría en cautividad o la reproducción artificial *in situ* (y el comercio posterior) con la cría en cautividad o la reproducción artificial *ex situ* (y el comercio posterior)?
estos riesgos, pero puede carecer de beneficios directos para los Estados del área de distribución o las comunidades locales. - *Riesgos genéticos y sanitarios:* Existe el riesgo de que la cría en cautividad o la reproducción artificial *in situ* introduzca rasgos genéticamente modificados o seleccionados en las poblaciones silvestres, lo que podría afectar la diversidad genética. La cría en cautividad o la reproducción artificial *ex situ* podría entrañar el riesgo de introducir especies invasoras o patógenos en nuevos entornos si se producen escapes. - *Impacto en las poblaciones de silvestres*: Los establecimientos *in situ* podrían suponer un riesgo de blanqueo de especímenes silvestres o ejercer presión en los ecosistemas locales debido a la concentración de especímenes. De manera general, los establecimientos *ex situ* implican menos riesgos directos para las poblaciones silvestres, ya que están aislados de los hábitats naturales. - *Beneficios para las comunidades locales:* La cría en cautividad o la reproducción artificial *in situ* puede proporcionar medios de subsistencia e incentivar la conservación, implicando a las comunidades locales en el proceso. La cría *ex situ*, sobre todo si se realiza en Estados que no pertenecen al área de distribución, podría no ofrecer estos beneficios directos. - *Conservación e investigación:* La cría *ex situ* puede apoyar la conservación proporcionando poblaciones de reserva para la reintroducción y valiosas investigaciones científicas, mientras que la cría en cautividad o la reproducción artificial *in situ* puede conducir a mejorar el estado de conservación mediante una ganadería o agricultura bien regulada. - *Casos específicos*: El documento también menciona casos específicos como el guepardo, el borrego cimarrón y especies vegetales, en los que el método (*in-situ* en contraposición con *ex-situ*) tiene implicaciones variadas para la conservación y la posible recuperación de la población silvestre. - *Consideraciones reglamentarias:* Tanto la cría en cautividad o la reproducción artificial *in situ* como *ex situ* deben estar bien reguladas para evitar el comercio ilegal y el blanqueo y para garantizar que cualquier cría o reproducción artificial apoye los esfuerzos de conservación. - *Cooperación internacional:* Es importante la cooperación en marcos como la CITES, como se demostró con la iniciativa Conservación Ciudadana, que incluye programas de cría *ex situ* que contribuyen a la conservación de las especies. *Consideraciones específicas para las plantas:* - Conservación genética: El cultivo *in situ* debe utilizar material de reproducción autóctono (local) para preservar los genotipos locales y evitar la hibridación con genotipos no autóctonos, lo que es crucial para mantener la diversidad genética. - Sostenibilidad: Las extracciones de especímenes reproducidos artificialmente *in situ* no debe superar el suministro previo e idealmente debería dar lugar a un aumento neto o al menos al mantenimiento de la población silvestre local. Podría ser preferible una extracción no letal, como la recolección exclusiva de flores. - Participación de la comunidad: Involucrar a las comunidades locales, especialmente a las que antes se dedicaban a la recolección silvestre, en el cultivo *in situ* podría proporcionar ingresos alternativos y promover la conservación tanto de las especies como de sus hábitats. - Escala de cultivo: Se sugirió que el cultivo a pequeña escala orientado a la restauración tiene mejores resultados para la conservación en comparación con los métodos industriales a gran escala. - *Beneficios del cultivo* ex situ*:* Aunque el cultivo *ex situ* de plantas sobreexplotadas puede reducir la presión en las poblaciones silvestres, es posible que no sea directamente beneficioso para los esfuerzos de conservación en el área de distribución nativa de la especie. - Especies maderables y no maderables: En el caso de la flora maderera, se carece de información para comparar los riesgos para la conservación de la reproducción *in situ* comparada con la reproducción *ex situ*. En el caso de la flora no maderera, como los cactus, la reproducción *ex situ* en países fuera de su área de distribución natural no ofrece incentivos para la conservación de la especie en su hábitat natural. - Vínculo entre los medios de subsistencia y la conservación: El cultivo de plantas *in situ* puede generar medios de subsistencia para la población local y está estrechamente vinculado a la conservación cuando está bien regulado, lo que demuestra que el uso sostenible puede ser compatible con los objetivos de conservación. *Consideraciones específicas para los animales*: - Se aplica la lista que precede

c) i) ¿Qué factores deben considerarse a la hora de evaluar el riesgo relacionado con estos sistemas de producción?

Resumen

- Los sistemas de producción representan un riesgo gradual para la conservación, donde las extracciones no regulada / no sostenibles representan el mayor riesgo para la sostenibilidad de la población, mientras el riesgo general para las poblaciones silvestres disminuye a medida que disminuye la dependencia de los especímenes silvestres, es decir, riesgo de las extracciones W > R> Y=F > A=C=D
- Algunas Partes y observadores plantearon las siguientes preocupaciones en relación con los diferentes sistemas de producción:
    - R: Uso indebido, por ejemplo, la extracción de animales grávidos del medio silvestre con la liberación del adulto tras el nacimiento/eclosión de las crías o su aplicación a especies con selección K;
    - F: requieren un DENP, pero podrían depender de la suplementación con suministros de especímenes silvestres, lo que podría tener un impacto en las poblaciones silvestres;
    - A, C, D: el menor riesgo para la conservación de las poblaciones silvestres, ya que representan sistemas de producción que tienen el menor contacto directo con el medio natural y el menor uso de plantel reproductor silvestre. Existe un posible riesgo en relación con la selección genética que puede producirse en los establecimientos para mejorar la comerciabilidad del producto. El escape de estos individuos o de sus propágulos al medio ambiente y el posterior cruce con poblaciones silvestres podría ser un problema para la conservación dependiendo de la ubicación (*in-situ*, *ex-situ*). Cierto nivel de riesgo de blanqueo;
- Algunas Partes también plantearon como una preocupación la capacidad para distinguir entre especímenes no silvestres y silvestres.
- En lo que respecta a las plantas, la opinión es que la gran mayoría de ellas no necesitan ser suplementadas con especímenes de origen silvestre.
- En las respuestas se mencionaron cuestiones claves, tales como el origen legal, las características biológicas de las especies, las medidas de gestión, la trazabilidad, la extracción de especímenes silvestres para el plantel parental o para evitar la endogamia, la capacidad reproductiva en entornos controlados, la posibilidad de utilización en función de su capacidad de producción, la demanda y los derivados renovables.
- Los sistemas de producción se convierten en motivo de preocupación si no son capaces de producir las cantidades de especímenes que pretenden exportar lo que fomentaría el blanqueo de especímenes extraídos del medio silvestre para satisfacer la demanda (regulación, supervisión).

d) ¿Este comercio de especímenes de origen no silvestre ha tenido repercusiones en el comercio de especímenes silvestres de la misma especie?

Resumen

- Varía según la especie y depende de la gestión de los distintos sistemas de producción.
- Los distintos sistemas de producción deben gestionarse correctamente para garantizar que no haya repercusiones en los especímenes silvestres.
- Preocupaciones:
    - El mercado de especímenes no silvestres que a menudo son producidos por Estados que no pertenecen al área de distribución puede afectar al comercio sostenible de especímenes silvestres de los Estados del área de distribución cuando se pueden formular DENP y DAL para el comercio silvestre.
    - Beneficios limitados / nulos para los Estados del área de distribución de los sistemas de producción establecidos fuera del área de distribución nativa de la especie.
    - Preferencias de los consumidores (si hay preferencia por los especímenes silvestres)
- Calidad y cantidad de especímenes producidos a través de orígenes "no silvestres". Puede ser positivo (suministro constante de la misma calidad y cantidad).
- Tanto los sistemas de producción silvestres como los no silvestres pueden ser beneficiosos para las comunidades locales.
- Características biológicas de la especie, consideraciones sobre el ciclo vital:
    - Las especies longevas y de crecimiento más lento suelen presentar dificultades para la cría en cautividad y/o la reproducción artificial de especímenes que tienen demanda. Estas características hacen que dichas especies corran un mayor riesgo de extracciones en el medio silvestre para satisfacer la demanda mediante el blanqueo de los especímenes deseados como criados en cautividad/reproducidos artificialmente.
    - El impacto del comercio de especímenes no silvestres de especies de crecimiento más rápido y con facilidad para la cría en cautividad y/o la reproducción artificial en el comercio de especímenes silvestres de la misma

especie puede ser limitado, ya que la demanda puede abastecerse fácilmente, dependiendo de las preferencias con relación a los especímenes que son objeto de comercio.

Consideraciones específicas para las plantas:

- El impacto en el comercio de plantas varía según las especies y los especímenes. La reproducción artificial podría aliviar la presión en las poblaciones silvestres. Sin embargo, la calidad y la cantidad del material reproducido artificialmente en contraposición del de origen silvestre pueden influir en la demanda y los precios. Es posible que persista la preferencia de los consumidores por las plantas silvestres debido a sus diferentes propiedades, como el contenido de principios activos u otras características, y un aumento de la oferta procedente del cultivo podría impulsar una demanda adicional.
- Existen especies endémicas reproducidas *ex-situ* en países fuera de su área de distribución, lo que suscita preocupación sobre el origen de su plantel parental.
- Negativos: especímenes silvestres recolectados ilegalmente y blanqueados a través del comercio legal. Existen desafíos en el caso de las especies longevas y de crecimiento lento que corren mayor riesgo de recolección silvestre para satisfacer la demanda.
- Positivos: En algunos casos, el comercio de plantas reproducidas artificialmente ha sustituido al comercio internacional de especímenes silvestres.

Consideraciones específicas para los animales:

- Resumen indicado más arriba.
- Se proporcionaron ejemplos específicos relacionados con el comercio de especímenes criados en cautividad que dio lugar a una reducción del comercio de especímenes silvestres y, en los casos en que había una explotación no sostenible de las poblaciones silvestres, ha permitido que las poblaciones silvestres se recuperen, al tiempo las comunidades locales han obtenido beneficios.

e) ¿Observa beneficios para la conservación en los sistemas de producción con los códigos de origen A / Y / D/ F / R / C?

Resumen

- Es difícil responder de manera generalizada, pero en la mayoría de las respuestas se indicó que los sistemas de producción de especímenes de origen no silvestre podrían tener beneficios para la conservación (cuando se gestionan adecuadamente, todos los sistemas de producción pueden tener beneficios para la conservación).
- En algunas Partes hay poca competencia directa entre el comercio de productos silvestres y los procedentes de la cría en cautividad o la reproducción artificial. El comercio de especímenes no silvestres suele sustituir al comercio de especímenes silvestres cuando la especie silvestre está protegida y/o las extracciones en el medio silvestre para el comercio no son sostenibles.
- La posibilidad de comerciar con especímenes no silvestres puede proporcionar beneficios económicos que compensen los que se hayan perdido como resultado de una prohibición de las extracciones, lo que reduce la presión sobre las poblaciones silvestres y las posibilidades de que haya extracciones ilegales.
- La venta de crías puede servir de apoyo a establecimientos que aporten beneficios para la conservación mediante la reintroducción o el establecimiento de poblaciones de aseguramiento. Sin embargo, cuando las poblaciones silvestres alcanzan la capacidad de su hábitat o se dispersan hacia hábitats desfavorables, una gestión adaptable de las capturas silvestres puede mantener una dinámica depredador-presa saludable y reducir los conflictos entre los seres humanos y las especies silvestres.
- Debe haber mayor supervisión y control para garantizar la sostenibilidad.
- El fomento de la reproducción artificial de plantas con demanda no solo contribuye a la conservación y el uso sostenible de las especies, sino que también puede reportar grandes beneficios socioeconómicos a los países que deseen comerciar de forma responsable con sus recursos botánicos.
- Las plantas reproducidas artificialmente tienen el potencial de utilizarse en la recuperación y restauración de especies que pueden estar localmente agotadas o extinguidas.
- Las respuestas en relación con el código de origen R fueron limitadas.

f) Si los especímenes de origen no silvestre (criados en cautividad, reproducidos artificialmente, etc.) fueran menos comunes o se suspendiera su comercio, ¿sería probable que los especímenes silvestres de la misma especie sufrieran una mayor presión a causa del comercio? Sí/No

Resumen

- El consenso general entre las Partes que respondieron fue que si los especímenes de origen no silvestre, como los procedentes de la cría en cautividad o la reproducción artificial, fueran menos comunes o se dejaran de

comercializar, es probable que los especímenes silvestres de la misma especie se vieran sometidos a una mayor presión comercial. Sin embargo, existen algunas salvedades relacionadas con las especies implicadas y las circunstancias individuales.

- Dependiendo de la especie y de las circunstancias individuales, de la demanda del mercado, así como del peso del comercio en la economía, podría haber una mayor presión comercial sobre los especímenes silvestres de no haber otros sistemas de producción.
- Si no existieran opciones de origen no silvestre, es probable que aumenten las extracciones ilegales, lo que podría ejercer presión sobre las poblaciones silvestres (de la misma especie o de especies sustitutivas), afectar la sostenibilidad de las especies y crear presiones ecológicas más amplias.
- Ejemplos de demanda que actualmente se satisface mediante reproducción artificial y que si esta se elimina generará presión en las poblaciones silvestres.
- La cría en cautividad o la reproducción artificial de origen no silvestre permiten la sostenibilidad sin afectar a las poblaciones silvestres.
- Hay especies que presentan restricciones biológicas, reproductivas y demográficas intrínsecas que, junto con el cambio de uso del suelo y la extracción ilegal de especímenes de especies silvestres, comprometen la permanencia y viabilidad de sus poblaciones silvestres.
- En el caso de algunas especies, la cría en cautividad puede ayudar a reducir la demanda, pero en el de otras puede contribuir a aumentarla y suscitar preocupación por el posible blanqueo de especímenes silvestres.

Especímenes de origen no silvestre

ASPECTOS CIENTÍFICOS/ASESORAMIENTO:
RIESGOS Y BENEFICIOS PARA LA CONSERVACIÓN Y CONSIDERACIONES EN RELACIÓN CON LA GESTIÓN, LA REGULACIÓN Y LA OBSERVANCIA.

Observación general:

El consenso parece inclinarse hacia un riesgo para la conservación potencialmente menor cuando se aplican sistemas y prácticas sólidos, pero con cierta cautela para no generalizarlo a todas las especies y circunstancias. Si bien hay ejemplos de éxito en la reducción de riesgos mediante el comercio de especímenes de origen no silvestre, también hay retos como el origen legal de los planteles parentales / reproductores, el posible blanqueo, la suplementación no sostenible de los planteles, marcos normativos inadecuados y repercusiones variables en función de la especie y las condiciones locales que hacen necesario evaluar cada caso individualmente.

Aspectos científicos/asesoramiento

El riesgo podría variar dependiendo de la especie de que se trate, incluyendo en función de las características biológicas intrínsecas de la especie y de si se trata de una especie nativa / autóctona. Se puede considerar que el riesgo es bajo si se trata de una especie nativa / autóctona comúnmente criada / reproducida artificialmente. En cambio, el riesgo puede aumentar con la dificultad de criar/cultivar la especie y/o si la especie es rara en el medio silvestre.

El comercio de especímenes no silvestres puede reportar beneficios, como la reducción de la presión en las poblaciones silvestres y el apoyo a la recuperación de las especies, al establecimiento de reservorios o a la reintroducción de especies, pero el impacto real varía mucho en función de las circunstancias específicas y las prácticas de gestión.

Comités de Fauna y de Flora: un enfoque centrado en los riesgos y beneficios para la conservación

- Es difícil generalizar los niveles de riesgo y los beneficios relacionados con los sistemas de producción de cría en cautividad/reproducción artificial, ya que dependen de la especie, del tipo de especímenes objeto de comercio y de las condiciones específicas. Por consiguiente, es esencial evaluar individualmente en cada caso el riesgo para la conservación de las poblaciones silvestres si se está llevando a cabo la cría en cautividad/reproducción artificial y si se está comerciando con los especímenes criados en cautividad/reproducidos artificialmente.

- En el caso de muchas especies, faltan datos o capacidad para evaluar el impacto que el comercio de especímenes criados en cautividad o reproducidos artificialmente tiene en la conservación de la especie en el medio silvestre (aunque deben formularse dictámenes de extracción no perjudicial para la introducción de especímenes silvestres como plantel parental o reproductor, se consideró que era difícil evaluar el impacto a largo plazo en la conservación). Los mecanismos para recopilar y analizar datos (incluidos estudios de población, tendencias de las poblaciones a lo largo del tiempo, análisis y supervisión del comercio) ayudarán a tener información sobre el riesgo relacionado con esta actividad (comercio de especímenes criados en cautividad/reproducidos artificialmente).

- Aumentar los beneficios / incentivos para la conservación de las especies en cuestión, incluso en su hábitat natural, a partir de la cría en cautividad / reproducción artificial *ex situ*, especialmente en países fuera del área de distribución natural de la especie, según proceda.

- Gestionar / mitigar los riesgos relacionados con la introducción en el medio silvestre de especímenes criados en cautividad / reproducidos artificialmente, especialmente los riesgos relacionados con enfermedades (patógenos), introducción de especies invasoras, diferencias genéticas y de comportamiento.

- Reforzar la aplicación de los requisitos aplicados a los sistemas de producción en lo que respecta al abastecimiento en especímenes silvestres, por ejemplo, dictámenes de extracción no perjudicial para los

planteles parentales / reproductores a fin de determinar el posible impacto del establecimiento y mantenimiento del sistema de cría en cautividad / reproducción artificial en las poblaciones silvestres.

- La identificación de los especímenes de origen no silvestre para garantizar que se puedan distinguir de los especímenes silvestres es esencial para garantizar que los especímenes silvestres no se comercialicen como especímenes criados en cautividad o reproducidos artificialmente. Los medios para identificar / distinguir estos especímenes ayudarán en este sentido y también pueden vincularse a los sistemas de trazabilidad.

- Evaluar caso por caso si es probable que el sistema de producción produzca una determinada descendencia en las condiciones dadas teniendo en cuenta las características biológicas de la especie y los requisitos para la cría y evaluar si es económicamente viable. En el caso de las plantas: Evaluar caso por caso el potencial biológico y la viabilidad económica de reproducir artificialmente la especie, teniendo en cuenta su forma de vida, sus requisitos ecológicos, así como su capacidad de reproducción sexual o vegetativa.

- Trabajar para que los beneficios de los sistemas de producción de especímenes de origen no silvestre puedan llegar a los Estados del área de distribución a fin de apoyar la conservación de las poblaciones silvestres, según proceda.

- Considerar si es necesario evaluar la aplicación de las disposiciones sobre cría en granjas como sistema de producción y su posible impacto en las poblaciones silvestres.

- Considerar la elaboración de orientaciones sobre lo que podría considerarse un beneficio para la conservación de las poblaciones silvestres/beneficios para la conservación de la especie, ya que esto no está claro.

Otras consideraciones en relación con la gestión, la regulación y la observancia (que se comunicarán al Comité Permanente)

- Considerar medios para abordar y supervisar el riesgo relacionado con el posible blanqueo de especímenes de origen silvestre como criados en cautividad / reproducidos artificialmente (especialmente plantas de los Apéndices I y II), en particular para las especies en las que la cría en cautividad / la reproducción artificial es difícil o no está bien establecida y si los especímenes producidos en cautividad / reproducidos artificialmente son difíciles de distinguir de los especímenes extraídos del medio silvestre.

- Reforzar la gestión de los sistemas de producción de especímenes no silvestres (incluyendo medidas para verificar que los especímenes han sido producidos en cautividad / reproducidos artificialmente) para reducir el impacto sobre los especímenes / las poblaciones silvestres.

- Recopilar información relativa a la demanda de especímenes de origen no silvestre y a la capacidad de los sistemas de producción de especímenes de origen no silvestre, teniendo en cuenta las características biológicas de la especie y las preferencias de los consumidores.

- Garantizar una gestión eficaz y la aplicación de disposiciones normativas a fin de reducir el riesgo para las poblaciones silvestres.

- Considerar la capacidad de los sistemas de producción para soportar el nivel de utilización/demanda del espécimen objeto de comercio mediante, entre otras cosas, la supervisión de los niveles de comercio.

- Garantizar una regulación eficaz del comercio de especímenes tanto de origen no silvestre como de origen silvestre, incluyendo sistemas de trazabilidad, a la vez que se mantiene una supervisión continua de las poblaciones silvestres para que las Partes puedan evaluar si existe un impacto en las mismas.

- Considerar qué factores en la regulación del sistema de producción pueden influir en los riesgos para la conservación relacionados con los sistemas de producción de especímenes de origen no silvestre.

- Estudiar cómo podría desarrollarse una estrategia común aplicable tanto a los animales como a las plantas, por ejemplo, homogenizando los textos de las Resoluciones Conf. 12.10 (Rev. CoP15) anexo 1, párr. 15 y Conf. 9.19 (Rev. CoP15): Una descripción de las estrategias utilizadas o las actividades realizadas por el establecimiento de cría en cautividad que contribuyan a la conservación de las

poblaciones silvestres de la especie. Además, considerar la posibilidad de incluir información relativa a la capacidad del sistema de producción para garantizar que el volumen / número de especímenes puede producirse sin una suplementación adicional de especímenes silvestres.

- Proporcionar orientaciones claras sobre cómo verificar la adquisición legal del plantel reproductor.

AC/PC JOINT INTERSESSIONAL WORKING GROUP: SPECIMENS NOT OF WILD SOURCE
CONSOLIDATED RESPONSES

a) Is the conservation risk for the wild populations associated with trade in specimens of animals and plants not of wild source, lower, higher or similar to trade in wild specimens in your country
i) Why does conservation risk vary?
Australia In general terms, take of specimens from the wild presents a greater risk when compared to captive bred specimens. Australia's strong laws ensure the ongoing ecological sustainability of wild harvest, and we have strict laws to establish legal source of captive bred stock. Wild source programs can present risks to conservation if not managed properly. Australia's assessment processes, ongoing monitoring and management approaches, underpinned by science and provide for changes in environmental conditions and population dynamics. Our requirements for legal acquisition of captive source specimens are stringent and robust. We also require programs to demonstrate an ability to develop and maintain programs with minimal to no inputs from the wild before they're approved and closely monitor the success of programs. Australia's processes ensure minimal to no pressures is experienced on Australian wild populations when lawful trade occurs. **Canada** In Canada, the type of conservation risk to wild populations varies depending on whether the species is indigenous or non-indigenous to Canada. We rarely have trade in both wild and not wild of the same species in Canada. When looking at Canada's collective trade in wild source vs not wild source species, the conservation risk is about the same as our wild trade is well regulated and sustainably managed. We cannot comment about conservation risk in wild populations in other countries from our not wild trade as we do not have that type of information. For indigenous species, possession of both wild and not wild species, and therefore the ability to breed is strictly regulated. Most risk from commercial trade in Canada occurred in the past, mainly for furbearing species that were trapped for the international fur trade, ginseng that was overharvested for the medicinal trade and sport hunted species which were overhunted by settlers for food. Furbearing and game species have been regulated since 1917. Most species for this type of trade have recovered and current international trade is mostly in wild specimens. When indigenous species are listed as Endangered or Threatened under the federal Species at Risk Act or under provincial or territorial Acts, commercial trade in wild specimens is prohibited. In these cases, captive breeding or artificial propagation may be permitted to replace the historical trade. This provides an economical benefit to Canadians while removing pressure to harvest the wild species and leading to recovery of populations. When a species is listed as Special Concern, regulated commercial trade in wild specimens may still be allowed. Canada does not list non-indigenous species under these Acts. For example, peregrine falcon populations were severely depleted by the use of DDT in the 1950s and 1960s. Three subspecies were initially recognized in Canada: in 2003, *Falco peregrinus anatum* was listed as Threatened under the federal Species at Risk Act, while *F. p. tundrius* and *F. p. pealei* were listed as Special Concern. After studies found that the *anatum* and *tundrius* subspecies could not be distinguished genetically, they were listed together as Special Concern in 2012 and following an assessment of Not at Risk, were removed from the list in 2023. The recovery of the species reflected in these successive changes in listing was due, in part, to a re-introduction captive breeding program that was completed in the 1990s and is no longer active. The original breeding

operations involved in this program and their foundation breeding stock form the basis of the current Canadian CITES trade in captive bred peregrine falcons. Apart from a few breeding operations that participate in remedial activities related to environmental assessments, most falcon breeding is now for personal and commercial (pest control) falconry.

Panax quinquefolius (American ginseng) has been listed under the federal Species at Risk Act as Endangered since 2003. However, there has been propagation in Canada of both woods grown and cultivated ginseng since the late 1800s. Field grown (cultivated) ginseng now represents Canada's largest CITES trade by volume. In Quebec and Ontario, which are the two major ginseng range jurisdictions for wild ginseng within Canada, there are possession and trade restrictions on wild, wild-simulated, and woods-grown ginseng. Canada has a negative NDF in place for wild specimens and trade in wild-simulated and woods-grown ginseng is determined on a case-by-case basis upon consideration of production methods and provincial policy. While there may still be some illegal harvest in wild ginseng, Canada believes that trade in cultivated ginseng has relieved pressure on the wild species.

Non-indigenous species (imported as either wild or not wild specimens) are regulated at different levels by provinces and territories in Canada. Special attention is given to species that are known to carry pathogens or are invasive. Some provinces and territories are regulating possession or commercial use (which includes breeding) through the licensing of captive breeding operations or zoos. These licenses are issued only to facilities that meet and maintain requirements established by the provinces or the territories.

Most non-indigenous species bred in Canada are for the pet trade. While we cannot assess the conservation risk for these species within their range states, we recognize that there may be conservation risks due to escaped individuals becoming invasive or increased risk of pathogen spillover in the wild in Canada. However, this risk is low as these species tend to originate from warmer climates and would not survive the winters in most parts of Canada. There are also ways to mitigate the risk of pathogen spillover by having effective strict measures in place such as regulations and strong policy and procedures for trade. For example, Canada implemented a prohibition in our national law for import all species of the order Caudata (such as salamanders, newts, and mudpuppies) unless accompanied by a permit with the goal of protecting wild Canadian salamander species from a harmful fungus.

There can be a positive conservation benefit to the breeding of non-indigenous species when there is a direct benefit to the species in range countries i.e. cooperation between ex-situ breeding operations and in-situ conservation programs. For example, there is a breeding facility in Canada that breeds Appendix II amphibians for commercial distribution. The breeding stock is obtained directly from conservation projects in the range states, and depending on the agreement in place, the conservation benefits to the project could range from technical support to a percentage of income generated from the ex-situ operation. Breeding of non-indigenous species can also be beneficial when the species is threatened by disease in range states by the establishment of assurance populations.

China

Trade in specimens of animals and plants of or not of wild source are subject to strict regulations in China. Both types of trade are with pretty low conservation risk for the wild population.

Colombia

Timber Flora

For *Cedrela odorata* which is commercially harvested both from natural environment (wild origin) and from forest plantations, there is no documented information that would allow an analysis of the volume of timber obtained from the natural environment compared to the volume that could be harvested from plantations, as well as whether the level of risk less, greater or similar for the conservation of the species.

Non-timber Flora

Non-timber flora is only harvested through nurseries, not from the natural environment (wild origin), which is why it is not possible to determine the level of conservation risk (minor, major or similar) of the species being used.

Fauna

Taking into account that in Colombia the system of harvesting wildlife species for commercial purposes is currently only done through closed-cycle farming and not of specimens of wild origin, whether ranching or commercial hunting, it is not possible to determine the level of conservation risk (minor, major or similar) of the species subject to use.

Germany

Plants:

For species that are commonly produced in cultivation systems, such as many bulk MAP species or ornamentals, it can be considered that the supply from cultivation may decrease the risk for wild populations because, often, production and demand are well balanced and established, and sufficient quality and quantity of material from cultivation is available. It is assumed that the availability of sufficient quality and quantities of cultivated material would substitute wild-sourced material and may reduce or even prevent the demand for wild material.

Without having empirical evidence or data, this might be true for species like *Rauvolfia serpentina*, *Adonis vernalis*, many ornamental orchid and cacti species and others.

Species less common in cultivation, or where cultivation is difficult and not that established: the risk might be similar or even higher because the supply in cultivated material may be insufficient to meet the global demands, or it could be more expensive or generally less demanded compared to wild sourcing. This may bring traders/producers to fraudulent declarations of source codes (laundering of wild sourced material as artificially propagated) if trade in wild material is hampered or prohibited by law, or may cause the need for more wild material as founder stocks or for more or less regular augmentation of the artificial propagation in breeding facilities / nurseries to uphold production.

Also, when taking an overexploited wild plant species into cultivation, the effects on wild harvest and the conservation risks and status depend on the type of cultivation (e.g. small-scale in-situ cultivation linked to local communities and conservation aims vs. large scale industrial farming), on who profits from the cultivation (often it is not the former harvesters), on the biology of the species and how easy it is to propagate the plants (defines the need for wild propagation material), law enforcement and overall regulatory frameworks, land tenure, potential incentives for cultivating the species, and other factors. In general, there are mixed findings and considerations on the impacts of cultivation on wild harvest and the conservation status of affected plant species.

Examples of CITES species where taking them into cultivation has not led to significant improvements in their conservation status and where wild harvest and overexploitation continued might be some agarwood-producing taxa.

Animals:

In line with the explanations on cultivation on plant species, it can be considered that trade in animal species of not-wild source may reduce the risk for wild populations. In particular, demand for species in trade can be met by production of specimens in breeding operations and thereby decrease the demand for wild specimens.

For example, while harvest for the pet, leather, consumptive and medicinal trade may be considered a threat in reptile species, captive breeding and ranching of reptiles has been shown to be a viable, sustainable alternative in many cases. This is true for in-situ breeding operations in range states and ex-situ breeding operations in non-range states. E.g. *Stigmochelys pardalis* is commercially bred in facilities in range states such as Zambia, Tanzania and Kenya as well as in non-range states such as Germany, thereby pressure on the wild population of the species is relieved (Baker et al. 2022).

If breeding facilities are used to launder wild specimens, the conservation risk can be higher than controlled trade in wild specimens, especially as volumes traded from captive operations are usually higher.

In case of *Python regius*, the species is being frequently bred in captivity in non-range states, in numerous different colour morphs (Joseph et al. 2021; more than 7000 described here https://www.worldofballpythons.com/). Rare and exceptional morphs can be sold for extremely high prices. Similar patterns are currently observed for *Rhacodactylus*. This kind of trade appears to be somewhat detached from trade in wild specimens. In contrast, there has been concerns regarding the sustainability of ranching operations of *Python regius* in range states (D'Cruze et al. 2020, inclusion of certain species-country-combinations in Review of Significant Trade at AC32).

In *Shinisaurus crocodilurus*, overharvesting has contributed to the species critical conservation status. After its listing in CITES Appendix I, international trade is strictly controlled. Currently, the captive population worldwide is likely larger than its wild population, which is at the brink of extinction. In Vietnam, the population is estimated at less than 200 specimens (van Schingen et al. 2016) and also in China the species is assumed to be likewise depleted. In the same time the species has been bred in captivity since decades. Recent genetic studies based on captive animals revealed at least four different conservation units, one not known from the wild so far (Ngo et al. 2020), while it is unclear if they are all still existing in the wild. While any further trade in wild specimens would be clearly detrimental, trade in true captive-bred specimens may reduce the pressure from wild populations. Captive stocks may even serve as genetic reservoir and can be used to restock wild populations. In the case of *Shinisaurus crocodilurus*, restocking measures are planned in Vietnam and first trials succeeded in China.

Ranching operations in crocodilian species in range states have been proven as efficient concept for the sustainable use of species or populations of species, see for example transfer of the Argentine population of *Caiman latirostris* from CITES Appendix I to Appendix II, and populations of *Crocodylus porosus* or *Crocodylus niloticus*. The implementation of ranching operations as alternative to unregulated exploitation of wild populations considerably helped to improve the conservation status. However, the success of ranching operations depends on the biology of the species. Ranching programs are not suitable for all species and are used for species which have large clutch sizes but usually have a high mortality in early life stages (eggs, hatchlings) in the wild (Robinson et al. 2015).

Freshwater fish trade mainly relies on captive breeding of species reducing the risk of over-exploitation of species (Evers et al. 2019). While many (especially micro-endemic) species are considerably threatened by habitat loss, captive breeding not only reduces potential pressure on wild population by over-exploitation but also offers the possibility to help to maintain species that may get extinct in the wild in the future (see also case studies by Evers et al. 2019).

Falco peregrinus is native to Germany, where the species is traditionally used in the falconry and is kept and bred in large quantities in registered and non-registered breeding operations, also destined for the international export. The species was nearly extinct in Germany due to human persecution and in particular the intensive use of the pesticide DDT during the 20th century. Breeding operations are not only able to meet the demand in trade but were also able to provide animals for the re-introduction of the species in the wild in Germany, which helped the wild population to recover (White et al. 2020). Today, *Falco peregrinus* is listed as least concern in Germany. While breeding operations are able to meet the demand for the species in national and international trade, which would not be sustainably possible with wild specimens, these breeding operations may be associated with other problems (e.g. escape of captive-bred hybrid falcons) (Fleming et al. 2011).

It is possible that breeding operations in species are not self-sustaining, rely on constant augmentation from the wild, are not economically feasible and/or further increase demand for specimens, which cannot be met by breeding operations and may increase trade in wild populations and/or fuel illegal trade and wildlife laundering (e.g. Tensen 2016). However, if properly managed conservation risk associated with trade in specimens of animals not of wild source is generally assumed lower than trade in specimens of wild source.

Indonesia

The level of conservation risk varies influenced by internal and external factors. For example, internal factors: These species have very diverse biological characteristics, so the risks are also very diverse. For example, Crocodylus porosus have a long reproductive period and lifespan, while butterflies have a short reproductive period and lifespan, so captive breeding and harvesting from the wild has different risks for the two taxon groups. The external factors: breeding operations have more control over the environment in which the specimens live.
A list of species is included in the response for which the conservation risk for the wild population was considered lower with trade in the species not of wild source: *Crocodylus porosus, Pycnonotus zeylanicus, Aquilaria malaccensis, Acropora sp., Ornitopthera sp., Scleropages formosus, Cheilinus undulatus, Hippocampus spp.*

A specific example was also provided: Wild population of *Cheilinus undulatus*: The Scientific Authority of Indonesia under the National Research and Innovation Agency (BRIN/LIPI) monitored the population between 2006 and 2019, collecting density and length frequency data. The monitoring recorded 987 fish with total length (TL) ranging between 5 and 145 cm. The length frequency analysis resulted in 65% young and 35% adult fish in the populations. Other organizations, including the Technical Implementing Units (TIUs) of the Ministry of Marine Affairs and Fisheries (MMAF) and local government have done population monitoring as well. All of the results were presented in a table as part of the submission.

Mexico:

1. In principle, trade in specimens of non-wild origin implies the management of few wild specimens for production, either for the origin of parental stock or to avoid genetic problems in the captive population (genetic reinforcement). A controlled and sustainable trade in wild specimens may have a low impact on wild populations, depending on factors such as magnitude, constancy, intrinsic biology of the species and other pressures on the species or its habitat. It is all on a case-by-case basis.
2. The regulations in force in Mexico on the use of species from captivity or artificial production (plants) do not allow wild populations to be affected, since their use is subject to an approved Management Plan.
3. Likewise, trade in non-wild specimens may support harvesting of a greater constancy or magnitude than that of wild specimens, especially when measures are taken to enhance survival during certain stages of specimen development.

Particular examples:

i. Bighorn sheep (Ovis *canadensis*): in the particular case of bighorn sheep, Mexico has Management Units for the Conservation of Wildlife (UMA) for the harvesting of wild specimens and specimens bred in controlled conditions - captivity. The harvesting of individuals in both systems has a limit, determined by the size and structure of the population, since extraction is selective by age and gender. However, in captive breeding systems, a greater number of specimens can be harvested, since the dynamics of mortality and natural dispersion of wildlife are not available. In the specific case of the state of Sonora, the growth of sheep populations has been recorded in both systems, but with a greater growth of the captive population, with greater availability of specimens for hunting trophies (at a lower price) in captivity than in the wild (CONABIO, with data from SAGARHPA, 2023; Biol. Juan Manuel Segundo, personal communication). Captive populations in Sonora and other states have not incorporated additional wild specimens to reinforce the genetics of the captive population; likewise, captive specimens are released into the wild to reinforce or reintroduce the wild population. For these reasons, hunting (national and international) of captive specimens does not have a negative impact on wild populations.

ii. Totoaba (*Totoaba macdonaldi*): Fishing and trade of wild totoaba is prohibited (only trade in captive-bred specimens is allowed), with few exceptions for the collection of scientific samples or the formation or reinforcement of parental stock (for captive-breeding operations). Obtaining wild specimens for parental stock (or reinforcement of parental stock) is an extremely low impact considering the biomass and genetic variability existing in the wild (Annex 4a, Document SC71 Doc 17, CITES; Enriquez *et al*., 2023). Nationally, aquaculture production is mainly focused on obtaining meat (fillets) and protein (meals, hydrolyzed proteins), and establishments carry out population reinforcement by releasing captive-bred specimens into the wild (Enriquez et al., 2023). In this way, hatchery production does not have a negative impact on wild populations; it even favors them.

iii. Terrestrial and freshwater turtles: according to the results of the tri-national workshop on the sustainable use of freshwater turtles and tortoises colas (CCA, 2019), wild tortoises and freshwater turtles present intrinsic characteristics that make them vulnerable to wild harvesting, such as: late sexual maturation (4 years or more), low annual productivity (clutches between 4 to 10 eggs), high mortality of hatchlings and juveniles, and limited populations in most sites. Because of this, wild harvesting entails greater risks (and less harvesting) than harvesting captive-bred specimens, where establishments can contain large numbers, in controlled environments and where survival and productivity are encouraged, with individuals generated in less time. According to the CEC (2017), well-regulated captive breeding is an alternative that reduces wildlife extraction pressure.

iv. Red cedar *(Cedrela odorata): this* species is commonly planted in Mexico, which must be registered as UMA, since the species is on the list of species at national risk (NOM-059-SEMARNAT-2010) under the category of "Subject to special protection" (Pr). However, the conservation status of its wild populations is only known precisely on the properties where it is harvested *in-situ*. Romo-Lozano *et al*. (2017)note that population estimates for the species considering both plantations and the wild are: 1.397 ± 0.92 million trees in the Pacific region; 4.524 ± 1.74 million trees in the South-Southeast region; and 9.057 ± 2.84 million trees in the Gulf of Mexico region. The estimated extent of occurrence (EOO) is wide, but something that threatens this species has been the historical overexploitation. Therefore, the existence of plantations for the species is crucial to reduce pressure on wild populations.

v. Cactaceae/Ariocarpus *retusus:* There is overexploitation of the species due to its growing supply and demand because it is one of the most prized cacti by collectors. In Mexico, there are 26 intensive UMAs (nurseries that involve conservation aspects of the wild species they manage), 6 botanical gardens and 19 Predios e Instalaciones que Manejan Vida Silvestre de Forma Confinada Fuera de su Hábitat Natural (PIMVS; nurseries) authorized to harvest *A. retusus. According* to UNEP-WCMC (2024)*,* most of the demand is being met by nurseries in other countries that are not part of its range, while Mexico has no records of exports for commercial purposes for this species.

South Africa

Key reasons why the conservation risk may vary are related to:

1. Regulatory mechanisms in place – Can the captive-bred specimen be distinguished from a wild sourced specimen, how likely is it to track the specimen through the system and ensure that the specimen or derivatives thereof is indeed captive-bred. Being able to track captive-bred animals.
2. Biological characteristics (life history) of species – How easily does the species breed in captivity and number of offspring produced over a period of time. Low reproducing species that are difficult to breed in captivity are at a higher risk for collection from the wild.
3. Demand for species or derivatives of species.
4. Rarity of the species in the wild (Population status and trends).

Additional considerations – plants:

- There is more oversight of growers and nurseries trading in Appendix I listed species, for example, all exporting facilities trading in cycad species are required to be registered in accordance with CITES Resolution Conf. 9.19 (Rev. CoP15), and regularly audited to ensure continued compliance with CITES Resolution Conf. 11.11 (Rev. CoP18).
- In contrast, there is less oversight of growers and nurseries for Appendix II listed species, and this presents an opportunity for the laundering of wild plants.
- The lack of adequate capacity and resources to monitor growers and nurseries trading in CITES plant species does present challenges to the conservation risks associated with such trade.
- The commercial availability of artificially propagated plants to supply the demand for different species will also influence the conservation risk to wild plants. Some plants are easier to produce and have been made widely available through artificial propagation whilst other species, particularly many of the slower-growing plants, may present challenges in this regard leading to a higher risk of the demand being supplied from the wild. In some cases, there is also an ongoing demand for wild specimens (of certain sizes and with unique characteristics), particularly amongst specialist collectors, and this demand, albeit small, can rarely be met through artificially propagated specimens

- Levels of awareness amongst conservation officials and the general public on trade in different plants also contributes to the level of risk posed to different species, with more well-known cases receiving more attention and oversight (e.g. cycads) compared to less well-known trades (e.g. in succulents and geophytes)

Sweden

In Sweden, to our knowledge, we have few species that are native to Sweden and occur naturally in the wild in which trade of specimens not of wild source occurs. Native orchid species and *Rhodiola rosea* (rosewort) are cultivated and widely sold across the country by established retail stores and websites. Collection from the wild is prohibited by the Swedish Species Protection Ordinance. Exemptions can be granted on a case-by-case basis by the competent authority if certain criteria are met and that the collection does not have a harmful effect on the wild population. We currently do not have an overview of how many exemptions have been granted but plan to gather this information from the administrative county boards that can issue exemptions during 2024, to get an overview of the extent of harvest. Illegal collection and harvesting occur but we do not currently have data on this. Hence, we have answered "similar" risk as we currently lack the necessary information to assess whether the risk is higher or lower for species associated with trade in cultivated specimens.

The keeping of and trade in bird species native to Sweden and Europe is prohibited by the Swedish Species Protection Ordinance. The keeping of birds of wild species, regardless of origin, is prohibited by the Swedish hunting legislation, with a few exemptions. The animal welfare laws further prohibit the keeping and sale of live wild-caught birds, as well as any vertebrate species, that are to be used as pets, hobby or feed animals. We are aware that illegal keeping, breeding and trade in songbirds of wild species occur, in particular the creating of hybrids between European goldfinch (*Carduelis carduelis*) and canary birds. We see a risk that the demand for these hybrids may create incentives to illegally collect wild goldfinches for breeding purposes. Therefore, we replied that there is a "higher" risk, especially considering that this is an illegal activity in and of itself, notwithstanding any trade.

United States of America

We do not believe that it is possible to make a blanket statement of higher, lower, or similar risk for trade in specimens of animals and plants not of wild source, as the considerations are complex and varied and must be determined on a case-by-case basis. In general, the CITES framework, establishes through its terms a careful balance in the requirements for qualifying bred in captivity animal specimens and qualifying artificially propagated plant specimens under Article VII.4 (source code D [for Appendix-I animal species bred in captivity for commercial purposes and Appendix-I plant species artificially propagated for commercial purposes]) or Article VII.5 (source code C [for specimens of animal species included in Appendix I that have been bred In captivity for non-commercial purposes and specimens of animal species included in Appendices II and III, if the animals are bred in captivity in accordance with Resolution Conf. 10.16 (Rev. CoP19)] or source code A [for specimens of plant species included in Appendix I that have been artificially propagated for non-commercial purposes and specimens of plant species included in Appendices II and III, if the plants are artificially propagated in accordance with Resolution Conf. 11.11 (Rev. CoP18)], which are less than those required for W, R, F, or Y specimens regulated under Articles III, IV, and V. We carefully evaluate permit applications for captive-bred animals of U.S. native species, including endemic species, or assisted production or artificially propagated native plant species, such as cacti, *Sarracenia* spp. and *Dionaea muscipula*. For example, for U.S. native species, we want to be assured that the animals and plants to be exported as source code C or A meet the respective requirements, and are not of wild origin (e.g., wild specimens are not being laundered as specimens not of wild source). We follow the guidelines in the appropriate CITES Resolutions – for animals, Resolution Conf. 10.16 (Rev. CoP19) and for plants Resolution Conf. 11.11. (Rev. CoP18).

For several reasons, not all applications to export bred in captivity animals or artificially propagated plants are subjected to the same level of scrutiny by the U.S. Scientific Authority. Due to the degree of conservation risk to the species, some export applications are more closely reviewed than others. For example, for biological and conservation purposes, some species have higher risk factors and merit greater attention/examination, particularly native species with small populations and/or restricted or fragmented geographic ranges. Please see below in response to a. iii. for a summary of our approach to risk assessment in non-detriment findings

OBSERVERS

AWI, BFF, DoW, ProWildlife, SSN

Conservation risks to wild populations associated with non-wild trade include:

– Laundering of wild-caught specimens through captive-breeding operations, either directly (declared as captive-bred) or for use as founder stock;

– Detrimental takes of wild specimens for founder stock;

– Unsustainable and/or illegal takes of wild specimens in response to increased demand due to the presence of captive breeding operations, even legitimate ones;

– Declaring as 'non-commercial', trade in specimens for breeding that may not be wholly non-commercial (e.g. inappropriate application of purpose code B) in order to facilitate trade;

– Escape of potentially invasive exotic species; and

– Spread of parasites or diseases from captive to wild populations (eg open-net fish farming).

There is abundant literature on the risks and negative effects that trade in animals allegedly not “of wild source” can have. Species-specific examples provided.

IUCN

Higher

In most countries across the range of the two Houbara species, the conservation risk for wild populations associated with trade of captive-bred Houbara is greater than that of trade in wild specimens.

Note that in addition to impacts on wild Houbara, supplementation with captive-bred Houbara creates impacts on other sympatric threatened bustard and bird species.

The number of captive-bred Houbara (of both species) annually released into the range of wild Houbara in Asia and Africa is approximately equal to the entire wild population of each species, as assessed by IUCN. In a press release from December 2022, the leading breeder of Houbara communicated that their operations alone had released over 700,000 Houbara worldwide under a banner of conservation. And yet, wild populations of both species continue to decline, and are judged by IUCN to consist of fewer than 30,000 individuals of each species of Houbara.

No solid information is publicly available concerning the genetic or behavioral compatibility of captive-bred birds with the wild populations into which they are released. As we understand it, the former have originated from a limited number of founders, hatched from wild-laid eggs. This limited stock has now produced up to twenty generations of birds for release. Although we assume new wild birds have been taken into these facilities for use as breeding stock over this time, it is apparent from multiple studies of different animal species, including Houbara, that captive breeding, especially at large scale, rapidly depletes the diversity of the genome.

Captive breeding of Houbara at a large scale is only possible through artificial insemination. This requires birds to be sufficiently tame and amenable. We do not have indication that breeding centers are taking any precautions that prevent removal from the breeding pool of the genes and behaviors associated with the wildness and wariness necessary for the survival in the wild of these ground-nesting, hunted birds. The introgression of maladaptive genes associated with adaption to captivity into wild populations of Houbara, which in many areas are miniscule in size in comparison to the scale of the releases, is of major concern.

Unusual, non-traditional and non-adaptive migratory paths are anecdotally observed to be undertaken by some released birds. As migration in Houbara is genetically controlled (Burnside et al. 2020), this suggests that some captive breeding and release strategies being used may not respect migratory lineage.

IWMC

Lower - It provides a sustainable alternative to using specimens of wild sources. Examples provided.

OATA

Conservation risk to species traded by the ornamental aquarium trade is varied and nuanced, and promoting wild collection over captive breeding or vice-versa is likely to lead to negative consequences for species conservation.

Where species are still collected from the wild, this is can be sustainable and supportive of conservation of wild populations. Animals collected for the trade are done so with low impact methods to minimise stress and damage to habitats. As such, they are low in volume and high value compared to other natural resources that might be collected for income. The collection of ornamental fish therefore leads to stewardship of diverse habitats by fishers and prevents environmentally damaging forms of livelihoods taking place [1]–[3]. In these instances, switches to captive breeding for certain species would likely lead to negative impacts for species conservation due to increased habitat threats due to alternative livelihoods being sought [4]–[7]. It also can lead to continued use of species but through illegal and/or environmentally damaging ways. For example, the listing of Seahorses on the appendices lead to widespread captive breeding for the ornamental trade (often outside of range states) but the trade in wild seahorses is now dominated by illegal specimens caught with damaging benthic trawls [8]–[10].

That said, limitations on captive breeding can also have negative impacts on conservation. Where a species has been captive bred and is meeting consumer demand already with captive bred specimens, further restrictions on those operations (such as CITES listing) can reduce supply (breeders disincentivised to continue operations or sell internationally) and drive consumer demand for wild specimens of endangered species. In addition, many captive breeding operations support conservation of wild populations as part of their activities, such as funding of conservation projects or animals for reintroduction projects.

An example of this would have been if the proposal to list Zebra Pleco on appendix I had gone ahead. In this instance, captive breeding would have been stopped due to the marking requirements for App I listed specimens (the majority of ornamental fish are too small to be marked without compromising their welfare), and thus increasing demand for illegally trafficked wild specimens. In addition, captive breeding operations in Indonesia also provided regular funding to conservation initiatives that supported wild operations e.g. Ictu Xingu [11], [12]

TRAFFIC

TRAFFIC considers that in some cases the differences depend on how effective the traceability system used for the species in question is in preventing the laundering of wild specimens through captive breeding operations.

Another crucial factor is the capacity of non-wild specimen production systems to meet the demand - and to be able to adapt to possible increases in demand - for specimens of the species concerned in domestic and international markets. Whether these production systems are able to meet demand effectively and at low costs that allow them to be offered at reasonable prices (while profitable for the producers)

It also depends to a large extent on the governance and capacities of the CITES Authorities and other institutions and stakeholders involved in the countries where the production systems are established, but also in the countries importing the non-wild-sourced specimens. The former are responsible for monitoring the operations through which specimens not of wild source are produced, making regular inspections and reviewing periodic reports to verify that the quantity of specimens produced is consistent with the life cycle of the species in question and that the operation and the handling of specimens are carried out in accordance with the regulations and in a transparent manner. Importing countries and their CITES Authorities are responsible for verifying the traceability of specimens and, in the case of Appendix I specimens, for verifying, inter alia, that the specimens to be imported originate from CITES-registered captive breeding facilities

WWF

Highlight our concern relating primarily to large, high value species that are relatively expensive to raise in captivity, where the wild population is already depleted and where much of it is located in countries with weak governance, where illegal wildlife trade is prevalent. We have taken one species to illustrate this issue but it is potentially a wider issue and needs to be seen in the context of Article III.3a) of the Convention.

Similar

Currently there is no legal commercial tiger trade from captive sources. There are currently no facilities registered to breed tigers under Res. Conf. 12.10 (Rev CoP15). That Resolution states inter alia, that “(p)arties shall restrict imports for primarily commercial purposes…of captive-bred specimens of Appendix-I species to those produced by operations included in the Secretariat’s Register;” Since Decision 14.69 states that “tigers should not be bred for trade in their parts and derivatives,” it is not apparent that there would be any scope for granting any application.

From a conservation risk perspective, the operation and scale of many captive tiger facilities supplying the illegal trade are a significant obstacle to the protection and recovery of wild tiger populations, as it allows for two highly negative pressures on the species to persist as they:

- undermine enforcement efforts: the movement (or leakage) of tiger products (including whole tigers, parts or derivatives) from such facilities to consumer markets complicates and thus undermines enforcement efforts aimed at stopping the trade in tiger products.

- help perpetuate (and grow) demand: The availability of any tiger products from captive tiger facilities serves to legitimise and normalise demand for such items. Given consumers’ preference for wild sourced tiger parts and products, even a modest expansion in the demand for tiger products could increase poaching pressures on wild populations.

TRAFFIC’s 2022 report Skin and Bones: An analysis of tiger seizures from January 2000 to June 2022, estimated the specimens, parts and products of at least 3,377 tigers were confiscated mostly in the 13 Tiger Range Countries with data showing an increasing trend. Of these, at least 744 tigers were from known or suspected captive sources. Between 2018-2019 confiscated tiger volumes suspected to involve captive-bred tigers in Thailand and Viet Nam were 81% and 67% respectively. Importantly, India, home to more than half of the global wild tiger population, remained the facilities-of-concern.

1 top-ranked country with the most incidents (759 - 34% of 2,205 total incidents, 2000-2022) and number of tigers confiscated (893 - 26%), demonstrating that the poaching pressure on wild tigers, despite significant illegal supply from captive sources, has not decreased.

Totoaba is a large Appendix I fish species found in the upper gulf of California, which is also home to the vaquita porpoise, the smallest and now the rarest cetacean in the world. It is fished illegally for its swim bladder, which is highly valued in traditional Chinese medicine. The decline in vaquita is solely attributable to its being caught as bycatch in the gillnets used in totoaba fishing.

In 2018, the Government of Mexico applied to have Earth Ocean Farms S. de R.L. de C.V. included in the CITES Register of operations that breed Appendix-I animal species for commercial purposes under Res. Conf. 12.10 (Rev CoP15). Objections from Israel and the United States of America, based on similar considerations to those pertaining in respect of tigers; that a legal trade in swim bladders would stimulate demand and facilitate laundering, leading to a decline in totoaba but also the likely extinction of the vaquita.

The application came before the CITES Standing Committee at its 71st meeting in 2019. The Standing Committee deferred a decision on the matter and it only came before the Committee again at its 74th meeting in 2022, when Earth Ocean Farms undertook to trade in totoaba meat only, and not in swim bladders, as was their original intention. Only then, and only by majority vote, was the application endorsed by the Committee.

a) iii) Factors that might influence the difference in conservation risk

Australia

Type of species

Species fecundity, recovery, external pressure (e.g. habitat loss, climate change, illegal take, unlawful trade, etc.) all contribute to and influence conservation risks

Canada

Production system is probably the most important factor for conservation risk in Canada. Therefore, the management of breeding facilities should meet regulatory compliance and standards, including guidelines and codes of practices on how to dispose of sick or dead individuals. The prevention of release of individuals into the environment is probably the most important risk factor. Escaped individuals have the potential to become invasive and cause economic and environmental harm, or to carry diseases and spread pathogen into the environment. For plants, woods grown production can potentially result in transfer of non-local genetic material or seed-borne pathogens into wild populations.

China

Biological characteristics of species are generally believed to be the main factors which influence the interaction between wild population and captive-bred /artificial propagation operations.

Germany

See response to above question.

Indonesia

Type of species, type of specimen and the production method/system.

Mexico

Type of species and specimens

Production systems or methods:

Candelilla (*Euphorbia antisiphylitica*) is mainly harvested from the wild to obtain wax; to ensure its sustainability, the Scientific Authority makes the corresponding NDFs (CONABIO 2022). Although there are some known efforts to establish plantations, they do not produce enough to meet international demand.

In the case of cedar, the wood of this species is considered precious and of high commercial value due to its color, aroma and high resistance to attack by fungi and insects. Its importance as a producer of precious wood encompasses economic, ecological and social aspects (Mesén, 2006). This has led to excessive exploitation of cedar, causing the decline and fragmentation of natural populations. Due to its importance, the species is widely used in reforestation plantations in the Mexican tropics (Basave-Villalobos, et al 2016).

In the case of cacti, according to the Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias (INIFAP), the national production of ornamental cacti at the commercial level is mainly focused on species that are easy to propagate in nurseries, either by seed or vegetative propagation. For those cactus species with risk status and difficult conventional propagation, commercial production does not exceed 5% of this volume. Considering that this production is scarce, the implementation of modern biotechnology techniques such as micropropagation is required, where cacti can be produced intensively in sufficient quantities and finished plants in greenhouses or nurseries, thus allowing the programming of their production. This ensures a constant supply of high value-added plants to the market, as is done in the production scheme for other ornamental plants. Currently, specific studies or exchange of information on more efficient production systems are required to meet the high market demand of collectors from the country of origin, so that they can be the main exporters of their species and the economic and social benefits can promote conservation measures for wild populations, thus avoiding the extraction of individuals from the wild.

Other factors:

1. Demand by species/specimen: If there is a greater demand (either for the species or for a specimen or derivative) than captive breeding/production can supply (low supply), pressure on the use of wild specimens (e.g., freshwater turtles, cedar, cacti) may increase. However, if demand can be met by captive production, this could decrease the pressure for a wild product (legal or illegal); for example, projections from a study by the Bren School of Environmental Science & Management model that a legal international trade in captive-bred totoaba maw from captivity could reduce illegal maw prices by 90%, reduce illegal wild capture effort by almost 70%, and increase wild reproductive success by 40%, benefiting the conservation of the wild population.
2. Prices: in terms of fauna, captive production generally represents a higher investment, in terms of food, habitats, veterinary services, payment of personnel, etc. If costs rise, the range of people that could buy the species/specimens bred decreases, so the pressure for wild collection (where not so much investment is required) could increase, even with negative effects (examples: sale/extraction of reptiles such as *Abronia* spp. and *Ctenosaura* spp. and mature individuals of tarantulas). In the case of cedar, since the benefits are long term, many times the increase in maintenance costs generates abandonment of commercial plantations, which in turn can have negative repercussions on wild populations because it is not possible to differentiate between artificially propagated and wild species when they are found in the same area.
3. Flaws in the production system: establishments or nurseries that would like to increase their production of high demand and high price specimens, but with low reproduction (or rare specimens), could engage in illegal activities such as incorporating wild individuals and passing them off as propagated, or other misidentified species. In this way, establishments/nurseries could generate a negative impact by extracting wild specimens without sustainability criteria to meet the demand (the CEC 2017 - Action Plan for Freshwater Turtles - includes this example of bad practices as a threat to conservation, as well as the results of the draft study by Garcia-Naranjo 2022on experiences with Mexican psitacidae

South Africa

Type of species

Type of specimen

Other

- Ability to distinguish between captive and wild specimens
- Capacity to monitor and regulate captive breeding facilities
- Regulatory system in place.
- Biological characteristics (life history) of the species and adaptability to captive environment
- Demand for the species locally and internationally
- Population status and trends of species in the wild
- Ease of sourcing from the wild

If renewable resource of species, for example horn or hair are used from captive bred specimens, there is potentially a higher conservation risk due to perverse incentives. For example removing animals from the wild to captive breed for commercial purposes and thus no incentive for keeping of wild populations. Income generated does not go towards conservation of species in the wild.

Different species have different life histories, and this would influence the conservation risk posed by trade, with long-lived, slow-growing species that are in high demand faced with a higher risk to wild populations, especially in the absence of efficient, legal, and sustainable production systems. As artificial propagation in the strict sense of the term may be challenging for long-lived, slow-growing species (especially in the short term), alternate production systems such as assisted production may be a better option (where functioning monitoring systems are in place), providing a means of supplying plants in a non-detrimental manner whilst simultaneously assisting with the regeneration/conservation of the wild populations.

The types of specimens in trade also influences the conservation risk with trade in seed and seedlings for example, posing a lower risk than trade in adult plants which generally take a longer time to produce, especially for slow growing species like cycads and caudiciform succulents. In such cases, the risk of harvest and laundering of wild plants as parental stock and for direct trade is high. Other factors influencing the conservation risk includes the availability of adequate capacity, skills and measures to effectively regulate the trade and distinguish between wild-collected and artificially propagated plants.

Although the status of a species in the wild could theoretically also influence its risks to trade, we have noted severe impacts to both Least Concern and threatened species all the same when it comes to laundering of wild-collected plants as artificially propagated.

Sweden

Type of species

Type of specimen

Production method/system

Other

Not specific to Sweden, but we would like to note that the type of demand will also influence the conservation risk. Demand for some species (e.g., pythons: Lyon & Natusch, 2014) may be met with captive-bred specimens if the demand e.g., is based on ensuring high-quality products, certification methods etc. However, for other species/products consumer preference may be higher for wild-sourced products which means that captive-breeding may not be able to satisfy the demand for the product but may even increase demand and pressure on wild populations (e.g., bear bile: Crudge et al. 2020; but see also Hinsley et al. 2022). In addition, the contribution of the captive-breeding operations to support local livelihoods and create conservation incentives for the wild populations is central (e.g., Nogueira & Nogueira-Filho, 2011; Sinovas et al. 2017).

United States of America

Type of species

Type of specimen

Production method / system

Other

Risk assessment. We review the status of the species in the wild and the degree of conservation risk the proposed activity poses to the species to determine the level of scrutiny needed to make a finding. We give greater scrutiny and require more detailed information for activities that pose a greater risk to a species in the wild. We consider the cumulative risks, recognizing that each aspect of international trade has a continuum of risk (from high to low) associated with it as follows:

(1) ***Status of the species***: From Appendix I to Appendix II.

(2) ***Origin of the specimen***: From wild-collected to born or propagated in a controlled environment to bred in captivity or artificially propagated.

(3) ***Source of the propagule used to grow the plant***: From documentation that the plant was grown from a non-exempt seed or seedling to documentation that the plant was grown from an exempt seed or seedling.

(4) ***Origin of the species***: From native species to nonnative species.

(5) ***Volume of legal trade***: From high to low occurrence of legal trade.

(6) ***Volume of illegal trade***: From high to low occurrence of illegal trade.

(7) ***Type of trade***: From commercial to noncommercial.

(8) ***Genetic status of the specimen***: From a purebred species to a hybrid.

(9) ***Risk of disease transmission***: From high to limited risk of disease transmission.

(10) ***Basis for listing***: From listed under Article II(1) or II(2)(a) of the Treaty to listed under Article II(2)(b)

OBSERVERS

AWI, BFF, DoW, ProWildlife, SSN: Response above.

IUCN

Production methods / system

Other – Quantity of birds traded

The best link to indicate the magnitude of this problem is: https://www.ecwp.org/ecwp/, where the scale of the Houbara production industry is openly indicated. The facility involved is certainly the largest of its type in the world and is widely judged to have cost over $1 billion, but, as Dolman et al. (2021) show, there are around 20 (we suspect now closer to 30) houbara captive-breeding facilities in operation across the combined ranges of the two species (for another source mapping 17 centers and claiming 624,827 birds released "for conservation efforts", see https://houbarafund.gov.ae/breeding-release). These facilities are private and we cannot be sure of the practices within them, but it seems likely that the production method will be artificial insemination, using "founding stock" in the form of captive-bred birds supplied by larger facilities alongside some additions of wild-collected eggs.

With this existing approach to Houbara captive breeding, there is a trade-off between the quantity and the quality of birds to be produced. At existing facilities, the emphasis is absolutely on quantity, apparently because of an assumption (or even an assurance) that the clients want as many birds as possible to hunt. However, while dissatisfaction with the performance of the hunted birds as worthy game for falconers is generally not expressed, because of a culture of courtesy, it is known that privately many hunters favour the quality of wild Houbara and the sport they provide. We know of a single facility (not mapped on the above link) which places quality before quantity, and which takes every precaution to shield parent and young birds from exposure and accustomization to human beings.

IWMC

Other: Trade restrictions discourage land owners and communities to conserve these species as there is no economical return, despite all the risks remaining.

OATA

Type of species

Other

For aquarium fish, the habitats that species are found in can affect the sourcing methods and therefore the impacts of the trade upon conservation.

Many freshwater species have been captive bred at scale for several years, significantly reducing the demand for wild sourced specimens [13]. For those freshwater species still sourced through wild capture, these are specimens that may be difficult to breed in captivity [14], [15] and may be sustainably sourced through use of boom-and-bust rainforest fisheries [2], [3], [16]. These fisheries exploit the boom in fish populations following the wet season, collecting individuals that would otherwise die when the waters recede during the dry season. As discussed above, both these methods can be beneficial for species conservation through: promoting environmentally sustainable livelihoods; stewardship and protection of biodiverse habitats; active funding of conservation efforts and meeting demand for species with captive bred specimens instead of wild.

For marine species, the majority of animals are sourced through wild collection with a smaller but growing proportion being sourced through captive breeding. This is due to the difficulty of replicating complicated planktonic life cycles in captivity. However, that does not necessarily mean that wild collected marine species have increased conservation risk. These species are collected with environmentally low impact methods [13], [15], [17]and provide fishers with a environmentally friendly livelihood where other local livelihoods are more environmentally damaging, e.g. Coral mining, destructive food fishing, etc [18]–[20]. In addition, some fishers will engage in pro-conservation behaviours, such as reef restoration activities. Wide scale switches from wild collection to captive breeding of these species could have negative consequences for conservation by removing the incentive for local people to use reef habitats sustainably.

TRAFFIC

Type of species

Type of specimen

Other

Elaboration linked to response to conservation risk question.

WWF

Type of species and specimens

Illegally sourced processed products, such as tiger bone wine and rhino horn, are easier to launder than more readily recognisable specimens, such as (in the case of other big cats) hunting trophies or skins.

b) Do you see a difference in conservation risk for the wild populations when you compare *in-situ* C/A (and subsequent trade) versus *ex-situ* C/A

Austria

Generally speaking, there is no difference between ex-situ and in-situ captive breeding/artificial propagation. Different considerations might have to be taken into account when it comes to requirements and conditions for operating. For example, the effect of escaping specimen differs between ex-situ and in-situ. It can be lower or higher for both situation depending on the survivability, diseases, conservation status, and many other factors. For conservation breeding purposes, the native natural conditions of in-situ breeding reduces artificial selection. On the other hand, ex-situ breeding can provide a saver backup for wild population and allow reintroductions.

Canada

It would be useful for the working group to define what in-situ and ex-situ mean within the context of this question as the response may vary. In the interest of time, we are defining two possibilities.

First possibility - In the context of in-situ (i.e. breeding of a species in one of its range states, regardless of breeding in a closed or open environment) and ex-situ (i.e. breeding of a species outside of its range states, regardless of breeding in a closed or open environment) as referred to Res. Conf. 13.9. This could be summarized by breeding of indigenous species vs non-indigenous species:

For in-situ (indigenous) breeding/artificial propagation, one of the conservation risks for wild populations is transfer of genetic material to wild populations from captive or artificially propagated specimens that have been genetically selected for specific traits. In addition, for indigenous species, there is also a risk of laundering wild specimens in breeding facility. However, there are also mitigation measures that can counter these issues.

For ex-situ (non-indigenous) the primary conservation risk is release into the environment, which can result in an invasive species, as a vector of pathogen or as a disturbance of the ecosystem.

Second possibility - In the context of in-situ (i.e. breeding of a species directly in their natural habitat in a somewhat open environment regardless of the breeding occurring in a range state or not) and ex-situ breeding operations (i.e. breeding of a species in a closed environment such as a building, regardless of the breeding occurring in a range state or not):

There are different examples of in-situ captive breeding/artificial propagation that may involve various risks for wild populations, such as farming of animals or crops, aquaculture in the ocean, artificial propagation in natural habitats (source code Y), etc. If there is a concentration of specimens in a small area, the operation may impact their local surrounding/habitat by the provision of feed, the production of feces and the support capacity of the environment itself. The use of chemicals in breeding operations may also be an issue, i.e. pesticides, antibiotics, etc. The escape of individuals or propagules leading to disease transmission to, or genetic exchange with wild populations is also a risk. Any in-situ captive breeding/artificial propagation would typically lead to greater risk to any species in the wild.

Ex-situ breeding tends to have less conservation risk for wild populations as the species are housed in a controlled environment. There can also be mitigating measures to avoid escape such as a physical barrier. There is less chance that genetic exchange would occur with wild population. There is also the possibility of treating waste products before release into the environment.

China

In China, both in-situ and ex-situ captive breeding/artificial propagation pose low conservation risk.

According to China Wildlife Protection Law, captive breeding shall contribute to wild population conservation. Use of specimen mainly come from captive breeding source.

Colombia

In the case of wildlife and non-timber flora, we reiterate the previous answers in the sense that we have no way to compare because we only have one closed-cycle and artificial reproduction system.

For timber flora species, there is no documented information available to analyze the volumes of timber obtained from the natural environment with respect to the volume presented in plantations, so that a valid reference value can be obtained.

Difference in conservation risk for wild populations associated with Assisted production (source code Y)

Germany

Plants:

In order to be supportive of conservation aims and sustainability goals in-situ cultivation should be done with caution and should consider a number of aspects:

- It should be done with autochthonous propagation material to conserve local genotypes and prevent substitution and hybridization of local variants by alien genotypes. Some species or populations may be more vulnerable to genetic introgression than others.
- Offtake from in-situ art prop must not be higher than the prior output / enrichment, i.e. in-situ art prop should result in net increase or at least maintenance of the local wild population.
- In this regard, non-lethal offtake (e.g. collection of flowers only) may be in favor of in-situ art prop and might result in midterm net increases of the wild population.
- Local communities, ideally former harvesters, should be involved in in-situ cultivation to provide alternative income and to create engagement and incentives to protect the species and their habitats.
- Small-scale restoration-oriented approaches may have better effects on conservation risks, livelihoods and the quality of harvested products than profit-oriented large-scale industrial approaches.
- Nevertheless, ex-situ cultivation of plants threatened from overexploitation may also have positive effects, see responses to question a).

Animals:

In-situ captive breeding and ranching may support livelihoods of local communities. Income and engagement in such operations provide considerable benefits and give the relevant species a direct value and thereby incentivize conservation of these species in the wild.

In particular, ranching operations can support conservation of wild habitats and improve the conservation status of the respective species (see examples of crocodiles above).

On the other hand, in-situ captive breeding and ranching may still rely on regular augmentation from the wild and may be prone to wildlife laundering if not properly controlled and regulated (Robinson et al. 2015).

Ex-situ captive breeding in non-range states in reptiles is significant (for example number of exported live specimens of reptiles increased from 2001 to 2020 in Germany to more than 4,000 specimens see van Schingen-Khan et al. 2022), thereby demand for international trade and pressure on wild populations may be reduced (see also Robinson et al. 2015). The risk of potential wildlife laundering may be lower than in in-situ breeding operations.

Ex-situ captive husbandry and breeding on a global level increase the possibility for scientific research on the species and have contributed to the taxonomic understanding and increased biological knowledge of species which ultimately also benefit conservation of the relevant taxa (Pasmans et al. 2017).

An initiative called Citizen Conservation based in Germany, consisting of a network of professional (including zoos and universities) and private breeders, develops coordinated conservation breeding programs for threatened species (fish, amphibians and reptiles) to build up stable and healthy reserve populations. For each species, concrete goals (numbers of animals and breeders) are defined that are assumed necessary to maintain a self-sustaining and healthy population over a certain period. Once these goals are reached, for some species, the commercial sale of surplus offspring may be considered as one management option, while the revenue will flow back into the program.

The Endangered *Tylototriton vietnamensis* is one of the species managed by Citizen Conservation (as is *Agalychnis lemur*). In case of this species, ex-situ breeding is supported by the range state Vietnam. Offspring bred within the frame of the program in Cologne Zoo was recently repatriated to Vietnam and a captive facility was meanwhile established in Vietnam as well. Data and knowledge are shared between ex-situ and in-situ facilities. This provides an example on how captive breeding including the commercial sale may contribute to the species conservation and how range and non-range countries may collaborate in that respect.

However, in other cases, ex-situ captive breeding may lack direct benefits to range states or local communities or does not incentivize conservation in the range states.

Nevertheless, especially in cases where species are mainly threatened by other factors than trade, back-up populations in captivity may be of crucial importance once threats in the habitat will be addressed.

Indonesia

Yes, with different levels of risk:

1. Anthropogenic risk when moving specimens from their natural habitat to an ex-situ breeding operation. However, ex situ breeding has the advantage to control the food, reproductive, and environmental parameters.

2. Natural risks for in situ breeding operations such as predators, diseases, and weather, but in situ breeding has the advantage that the specimen is in their natural habitat.

Mexico

There is no difference. For example, for bighorn sheep (*Ovis canadensis mexicana*), there is use in intensive management and on farms or facilities that manage wildlife in a confined manner, outside their natural habitat (PIMVS), in addition to management in the wild, with an approved management plan, conserving the species in the wild without any impact. It is important to consider in the future to generate it at a national level and in hatcheries in other countries with Mexican species (especially endemic), for example, cooperating under the CITES Res. Conf. 13.9 13.9 (on promoting cooperation between parties and conservation programs, or bilateral agreements).

In the case of cacti species, when reproduced *in-situ under* the UMA scheme, which have the general objective of conserving natural habitat, populations and specimens of wild species and may have specific objectives of restoration, protection, maintenance, recovery, reproduction, repopulation, reintroduction, research, rescue, safeguarding, rehabilitation, exhibition, recreation, environmental education and sustainable use. They carry out activities or generate incentives for the conservation of wild populations.

However, in document SC77 Doc. 35.3, several cases were documented of Mexican endemic cacti species such as *Echinocactus grusonii and Mammillaria lau* that are artificially propagated *ex-situ* in countries outside their area of distribution and that do not provide information on the origin of their parental stock and there are discrepancies in the use of the codes at the time of exporting these specimens, It should be noted that no benefit or incentive is generated for the conservation of its wild populations in Mexico and although this

production contributes to the reduction of the harvesting pressure on wild populations, it does not favor the conservation of the species in its area of distribution, such as the exchange of information and technology that benefits the production in the country of origin.

South Africa

This is likely species and case specific. Examples:

Cheetah, in-situ captive breeding allows for better rewilding opportunities (environmental conditions the same or more similar), than ex-situ captive breeding. Allows for better linkages to conserving wild populations. However, must be well regulated to prevent laundering of wild specimens into captive breeding facilities.

There however may also be a perverse incentive to captive breed vs to conserve wild populations, when income generation is skewed towards captive breeding compared to conservation of species in the wild, likely to lead to laundering (this pertains to species with renewable resources).

For the plant species highlighted by South Africa, there is no difference in conservation risk for the wild populations when comparing *in-situ* versus *ex-situ* artificial propagation (and subsequent trade) in South Africa. The risks remain the same as wild plants (of many species) can be harvested *in-situ* and easily be moved/laundered within the country, over relatively short distances and without detection (in most cases), to nurseries both in range and out of range as has been the case for a number of succulent plant species as well as cycads in the domestic trade. Majority of the domestic cycad trade is centred around nurseries in the Gauteng province, who have collectively had the greatest negative impact on wild populations even though the province is out of range for all, except two of the 38 indigenous cycad species.

Assisted production in such cases would be a preferred option, bolstering production of artificially propagated plants and aiding in the maintenance, regeneration, and recovery (where needed) of wild populations

An important point to make here is that growing plants *in-situ* may actually have the potential to create livelihoods for locals linked closely to the conservation of the species where such activities are well-regulated.

United States of America

Yes, we see a difference in conservation risk to wild populations from in-situ breeding/propagating operations versus operations outside the species' range. In the case of Diamondback terrapin and Softshell turtles, *in-situ* captive breeding allows breeders with non-closed/ not strongly closed facilities to supplement breeding stock from the wild. Also, there may be a greater possibility of disease spread to wild populations from escaped animals for *in-situ* operations.

On the other hand, *ex-situ* operations can also provide avenues for laundering illegally traded specimens, if Parties do not adopt and enforce sufficient measures and require sufficient record keeping to ensure the legal acquisition of all parental stock / breeding stock. There have been numerous examples over the years of specimens smuggled out of country A, bred/propagated in country B, and then the offspring exported to country C without evidence of legal acquisition of parental stock from country A.

OBSERVERS:

AWI, BFF, DoW, ProWildlife, SSN

Note that captive breeding / artificial propagation is *ex-situ* by definition; it is unclear what is being referred to here.

IUCN

If the Committee considers "*in-situ* captive breeding" to refer to the location of the captive-breeding facilities within, as opposed to distant from, the historic range of the species:

- The physical location of the captive breeding does not present a meaningful difference in conservation risk for wild populations *per se*.
- However, some "*ex-situ*" facilities are known to maintain populations of Houbara representing different areas of the overall range. In the Asian Houbara in particular there are genetic differences between populations in different areas, and we imagine that facilities holding birds from different areas will have a major organisational challenge to keep these birds pure-bred. Whether this has been achieved is unknown, but the risk of mixing is obviously much greater in an "*ex-situ*" facility than an "*in-situ*" one.

If the Committee considers "*in-situ* captive breeding" to refer to the headstarting of eggs collected from the wild but raised in captivity, and subsequent release of juveniles to the wild:

- This technique is not used for Houbara beyond the collection of founders to retain within captive-breeding system.

However, headstarting has been used with other bustard species with varying degrees of success. In best-case scenarios, this has allowed for improved recruitment in wild populations which has resulted in steady growth (e.g. for Great Bustards *Otis tarda* in Germany). However, in other cases headstarting has resulted in a net drain on wild productivity through collection of eggs without successful releases into the wild (e.g. for Great Bustards in western Russia).

IWMC

Ex-situ propagation and trade could lower the value of specimens sourced from their natural habitat. Removing the economical benefits for local communities, which will as a result lower conservation incentives.

OATA

Not applicable to aquarium fish as most captive breeding is conducted ex-situ.

TRAFFIC

Yes, there are certainly differences and both *ex-situ* and *in-situ* operations can have advantages and disadvantages. For example, captive breeding/artificial propagation in-situ may facilitate the laundering of specimens from the wild (disadvantage), but these operations may have conservation programmes that include the release of specimens into the wild to reinforce wild populations (which would make the transfer and handling of releases easier), education/awareness programmes targeted at people living with the species, etc (advantages). On the other hand, if captive-bred animals in *in-situ* facilities escape into the wild, they may carry diseases acquired in captivity or, in cases where they have bred with specimens from other populations/varieties/subspecies, they may genetically contaminate the wild population (disadvantages), while captive-bred animals in *ex-situ* facilities could be a source for the potential introduction of invasive alien species.*In-situ* operations can also create employment opportunities for local people who share their space with these species and know them well, thus preventing them from being forced to seek sources of income that could include illegal harvesting and trade of these and other species in their localities (advantage). On the other hand, these operations can also cause other problems if not managed properly, such as environmental degradation from improper waste disposal at such facilities, employment opportunities for local communities may be limited, and profits may not be distributed equitably, loss of traditional harvesting systems and knowledge, displacement of those communities by these facilities, etc.

c) i) What are the factors that need to be considered to assess the risk associated with these production systems?

Australia

Australia has not undertaken a comparative assessment suitable to inform a response. However, illegal trade is a significant factor that affects species.

Austria

Wild and non-wild production systems can entail conservation risks and benefits. Which prevails depends on how the specific system and operation is set up, how risks are mitigated and benefits are utilized. This might also depend on the species, its specific conservation concerns and the market conditions.

Source codes are a good way to communicate complex information in a simplified manner between Parties, but when checking the sustainability the specific circumstances have to be checked.

Canada

Canada views the production systems on a continuum of conservation risk, with wild harvest having the greatest risk on population sustainability, and overall risk to wild populations decreasing as the reliance of wild specimens decreases i.e. Harvest risk W > R> Y=F > A=C=D.

Source code R: This is not a source code used in Canada. These represent wild specimens that are removed from the wild at an early life stage, have very little chance of survival and raised in a controlled environment. It would typically apply to r-selected species. It is a more sustainable practice then the removal of adults from the wild. It can also be used for

enhanced wild production, where wild adults are collected in a semi-closed area and their offspring are collected and raised in a closed system. However, it can be subject to misuse, for example, the removal of gravid animals from the wild with the release of the adult after birth/hatch of offspring or its application to K-selected species.

Source codes Y: This is not a source code used in Canada at the current time. This source code has the advantage of reducing harvest pressure on the wild species and for monitoring plants that are not totally wild but are not in accordance with Resolution Conf. 11.11 definition of artificial propagation. Canada would consider and assess factors that could negatively impact the integrity of wild populations, particularly for species with restricted distributions for which there are conservation concerns. Examples might be where the production system would introduce pathogens or non-local, potentially maladapted genes into wild populations.

Source code F: This source code is used for specimens that are not in accordance with Resolution Conf. 10.16. It may be used when the breeding operation relies on regular removal of adult breeding stock from the wild. When a positive NDF can be made, this has a lower conservation risk than direct harvest of wild populations for trade as fewer adults are removed from the wild. This source code is also used for breeding operations that have not yet bred to a second generation but would be considered closed operations. In this case, the conservation risk to wild populations is similar as for operations that are in accordance with Resolution 10.16. This source code has also been used for offspring of adults that were gravid when removed from the wild and raised in a controlled environment. Canada does not agree with this use of source code F and considers such offspring to be source code W.

Source codes A, C and D: Canada considers these production systems to have the least conservation risk for wild populations as they represent production systems that have the least direct contact with the natural environment and the least use of wild breeding stock. A potential risk concerns the genetic selection that can occur in operations to improve the marketability of the product. The escape of such individuals or their propagules into the environment and subsequent interbreeding with wild populations could be a conservation concern

China

Biological characteristics of species are generally believed to be the main factors which influence the interaction between wild population and captive-bred /artificial propagation operations.

Plants: The vast majority of plants do not need to be supplemented from wild sources. Depending on the biological characteristics of different species, the main channel for the expansion of breeding substrates is non-wild sources, which basically forms a closed loop, and the dependence on specimens from wild sources is very small on the whole.

Animals: In China, the artificial breeding of wild animals requires permit, and the relevant provisions of the China Wildlife Protection Law are stricter than the current CITES resolution, requiring that the parental stocks should come from artificially bred offspring, and there are extremely strict restrictions on obtaining parental stocks from the wild.

Colombia

In the case of plantations, non-validation in the field can be a risk. Identification of species when they are not flowering or are seedlings. In timber and non-timber flora, traceability systems.

Germany

Plants:

A & D:

- validity of source code
- establishment and maintenance of parental stock to be non-detrimental to wild populations
- location of cultivation site (in native range of species or not)

Y:

- type of production (e.g. mixed species plantation, agroforestry, in-situ cultivation, enrichment planting etc.)
- establishment and maintenance of parental stock or origin / source of propagation material to be non-detrimental to wild populations
- location of production site (in native range of species or not)

Animals:

C & D: plausibility of captive breeding, risk of wildlife laundering (native and non-native range), regular control of facilities by competent authorities, non-detrimental establishment of the breeding stock and potential occasional augmentation of the breeding stock from the wild

F: non-detrimental offtake of parental stock; plausibility of being born in captivity

R: suitability of species for ranching operation based on its biological characteristics, plausibility check of production levels, risk of wildlife laundering, non-detrimental offtake of juveniles/ egg.

Indonesia

Plants : Propagation methods and human resources

Animals: Breeding methods and human resources

(1) In order to ensure easy control of breeding results, offspring should be separated from their parents.

(2) Offspring separation from parents shall be conducted in order to distinguish among generations where the first generation (F1) should be able to be distinguished from subsequent generations.

(3) In order to maintain the originality of wild animal species for protected species sourced from natural habitats, captive breeding unit is forbidden to conduct crossbreeding (*hybrid*) between species or subspecies.

(4) To ensure genetic biodiversity of animal species, animal breeding is conducted with at least with two pair or for polygamous animals is minimum two.

(5) Breeding is conducted by avoiding utilizing inbreeding parents stocks.

Mexico

Plants:

1. Legal origin
2. Species biology
3. Management measures
4. Traceability
5. Removal of wild specimens for parental stock or to avoid inbreeding.
6. Reproductive capacity in controlled environments
7. Possibility of utilization according to their production capacity.

Animals

1. Legal origin
2. Species biology
3. Captive biology (modification of reproductive behavior, accelerated growth)
4. Management measures

5. Traceability (physical and documentary marking and tracking measures)
6. Removal of wild specimens for parental stock or to avoid inbreeding
7. Reproductive capacity in controlled environments
8. Possibility of utilization according to their production capacity

South Africa

Animals:

- Regulatory environment
- Capacity to monitor and regulate
- Biological characteristics of the species
- Demand
- Whether trade is in renewable derivates of a species i.e. hair, horn etc

Plants

- Life history of plant species
- Ease of production/propagation of species
- Availability and effectiveness of mechanisms for monitoring the production within these systems
- Other factors that would influence the risk associated with this system is the ability to distinguish wild-collected plants from plants that have actually been artificially propagated as per the CITES definitions

United States of America

Plants:

For native plant species, these production systems would be of concern if they are not capable of producing the quantities of specimens that they intend to export and laundering wild-harvested specimens to meet demand becomes a concern. They also need to meet the requirements of Resolution Conf. 11.11 (Rev CoP18), such as note parental stock acquired legally.

As an example, we can provide our NDFs for wild harvest and artificially propagated American ginseng (*Panax quinquefolius*).

Animals:

For native animal species, these production systems would be of concern if they are not capable of producing the quantities of specimens that they intend to export and laundering wild-harvested specimens to meet demand becomes a concern. They also need to meet the requirements of Resolution 10.16 (Rev. CoP19), such as founder stock acquired legally.

OBSERVERS:

AWI, BFF, DoW, ProWildlife, SSN

We note that the roadmap for this work requests the Animals and Plants Committee working group “to consider the conservation risks for wild populations associated with non-wild trade” rather than factors to assess risk or differences in risk among different non-wild production systems.

IUCN

We pool our answers concerning CITES source codes D & C due to inconsistencies in their application. A large number of Houbara are traded as source code C, despite being produced at a facility registered for production for commercial purposes and traded without corresponding import permits.

The implicitly or explicitly stated use for these birds is typically hunting. This is evidenced by the location of release sites and hunting areas and also sometimes in conflicting purpose codes on pairs of CITES export and import permits.

In both cases, the production of large numbers of birds via artificial insemination breeding centers presents problems of adaptation to captivity and dependence on humans, as described in section a-i.

Currently, the operations of Houbara captive-breeding facilities are opaque. No information is publicly available concerning the genetic lineages kept at these centers, nor of the birds released. Captive-bred Houbara are released across 17 recipient countries, and it is unclear whether the limited founding stock and birds released are genetically suitable for these areas, in terms of migration and breeding phenology.

To better assess the risk associated with trade of Houbara produced by artificial insemination, it would be constructive to require availability of the following data for periodic formal review. Such review would: (1) appraise genetic impacts of this trade; (2) verify purpose of release and associated impacts on wild populations; and (3) assess the effectiveness of these release programs in creating self-sustaining populations.

- Geographic origin and genetic diversity of individuals used as breeding stock
- Breeding studbooks
- Dates and sites of releases of captive-bred individuals, along with the number and sex of these birds
- Genetic lineage of birds released at a particular site
- Access to existing telemetry data, which can be used to infer survival and breeding success rates of released birds
- Information on pre-release surveys concerning the status of wild Houbara in the vicinity of the release site

Source codes F & R:

We understand that both of these codes (though predominantly F) are used for bustard eggs which are collected in the wild but hatched in captivity, with the young birds later translocated to the wild. We note that there are applications of this activity which produce real conservation benefits. In the case of other endangered bustard species for which eggs are ranched, this is usually conducted in the country of origin, with the exception of the Great Bustard in the United Kingdom (sourced from Russia and Spain), and Arabian Bustard *Ardeotis arabs* (sourced in Yemen and brought to the UAE). Whether the eggs are kept within the country, or moved internationally, organizations are understandably reticent to openly admit failure, particularly when this involves seriously threatened species for which there is open public concern. Similarly, programs are prone to inertia, and may continue to operate even when not yielding benefits, or worse, causing damage to wild populations. Thus it would also be beneficial to raise the public accountability of these programs by making information available concerning:

- Number of eggs collected
- Egg and chick survival rates
- Number of hatched birds released to the wild
- Survival outcomes for these released birds

Genetic identity of released individuals

IWMC

Animals: If these production systems are allowed to supply the market on an ongoing basis, then poaching pressure will be taken off of the wild populations

OATA

If species of aquarium fish were listed on appendix I, then this would likely have significant unintended consequences for the conservation of wild populations of those species. The current requirements for the export of captive bred specimens of appendix I effectively would prohibit many aquarium fish species from trade entirely if they were listed. For example, the majority of aquarium fish traded are small bodied and any attempt to mark these specimens would likely be significantly detrimental to animals welfare – marking requirements for appendix I [21]would therefore effectively prohibit trade in these specimens. In this instance, demand for these specimens could be driven to illegal markets of wild caught specimens, negatively impacting the conservation of wild populations.

TRAFFIC

Based on the responses above, TRAFFIC believes that the risk is not related to the production system, but rather to the traceability system in place, the cost of reproducing and rearing the specimens of the species in question, and the risk of - and penalties for - being caught illegally harvesting specimens from the wild or laundering wild specimens into legal production systems and associated markets (related to the governance in place). If there are strong traceability systems, good governance, and a strengthened law enforcement system in place, then these production systems can represent lower conservation risks. However, it is important to note that there are many cases where sustainable harvesting of specimens from the wild has proven to be an effective means of conserving species and ecosystems, as it provides incentives for IPs and LCs to conserve species/habitats that contribute to their livelihoods and well-being. Both questions, are responded by the factors already referred to regarding traceability, governance, transparency and law enforcement.

d) Has this trade in non-wild specimens had an impact on trade in wild specimens of the same species?

Australia

Positive and negative

Vary by species and specimens.

Australia has not undertaken a comparative assessment suitable to inform a full response. However, there is arguments on both sides in allowing trade in captive bred specimens and potential impacts on wild populations. Some may argue having access to captive bred and lawfully obtained specimens will reduce pressure/take on wild populations, while others may argue that this stimulates trade and therefore increases pressure on wild populations.

Austria

Vary by species

Canada

Positive, Negative or None

As noted above, there is little species overlap between trade in wild and not wild species in Canada, so we cannot comment directly based on our own experience. There should not be an impact if the different production systems are correctly managed.

Canada suggests that a greater impact on trade of wild vs not wild specimens is that there are Parties that will not accept import of wild individuals. This creates a market for not wild specimens that are often produced by non-range states. This will impact sustainable trade in wild specimens from range states when NDFs and LAFs for the wild trade can be made.

On the other hand, trade in not wild specimens can relieve harvest pressure (both legal and illegal) on wild populations so they can recover by providing alternative sources of income for local populations that have historically relied on wild trade to support their families

China

Negative and None

Species

Use of wildlife specimen mainly come from captive breeding source, which reduces pressures on wild source

Colombia

Germany

Positive

Species and specimens

Plants: We are not aware of any clear / empirical assessments of impacts of art prop on the level of wild harvest, but taking endangered species in cultivation is generally considered as one measure to alleviate pressure from wild populations, which is probably correct in most cases.

However, the impact would depend on the quality and quantity of the material from art prop vs. wild-sourced material, which influences demand and prices for certain specimens and origins and therefore may cause wild collection to resist, expand or decrease, in parallel to any development of levels of artificial propagation.

Often, certain consumer groups favor wild collected material for different properties, e.g. content of active ingredients of other characteristics. On the other hand, production on industrial scales may favor material from artificial propagation because the quality and quantity of supply may be better and more constant and predictable.

Another conceivable mechanism that could lead to unintended effect on trade levels is when new/additional (to initial wild-sourced trade levels) supply from cultivation would drive additional demand. This could happen without any changes in harvest levels of wild populations, but in the worst case might even increase demand for wild-sourced material, when cultivation cannot supply an increased overall demand or when wild material becomes more popular than before.

Rhodiola rosea might be a species where artificially propagated material may in the mid-term reach quality levels (by breeding efforts) and quantities (by rapidly growing cultivation) that could lead to a substitution of significant portions of wild-sourced specimens in global trade.

For agarwood, plantations and other forms of artificial propagation creates high volumes of supply for the international markets, but, however, has not led to significant improvements of conservation status for many species, due to the superior quality and the resulting enormously high market prices for agarwood from old wild trees. Legal and illegal harvest has continued.

Animals:

For animals, trade data suggests, that if trade increases in specimens not of wild source, trade in wild specimens will decrease. So it can be suggested that trade in one source code may substitute for the other to meet a given demand.

Studies on the analysis of trade suggest that reptiles which are traded mostly wild, lose popularity in the pet trade, while the number of bred specimens increases in trade (e.g. Herrel & van der Meijden 2014, Robinson et al. 2015, Valdez 2021).

In several species, captive-bred specimens can be better kept in captivity. An example is *Physignathus cocincinus*, where wild specimens have a significant escape behavior, compared to captive-bred specimens, that may lead to severe injuries when running against the terrarium glasses.

Indonesia

Positive impact that varies by species and type of specimens

Mexico

We do not have elements to respond. In the case of Cactaceae, in document SC77 Doc. 35.3 documented several cases of Mexican endemic cactaceae species such as *Echinocactus grusonii and Mammillaria lau* that are artificially propagated *ex-situ* in countries outside their range without providing information on the origin of their parental stock and there are discrepancies in the use of the codes, according to UNEP-WCMC, 2024 the main exporters are non-range countries, while the country of origin has very few export events for commercial purpose.

South Africa

Animals:

Acinonyx jubatus (Cheetah) - positive impact. Replaced detrimental trade in wild specimens with captive bred trade to meet international demand. See NDF for details.

Leptailurus serval (Serval) and *Galago moholi* – None. Species is easy to breed in captivity and there was no trade in wild specimens.

Crocodylus niloticus (Nile crocodile) – Positive. Well documented turnaround from sourcing completely from the wild to sourcing from captive breeding facilities. Demand for unscarred skins incentive for captive breeding. This has led to reduced to no trade from the wild, and a positive impact on the persistence of the species.

Smaug giganteus (Sungazer) – None. There is no trade from non-wild specimens. All past reported captive trade are specimens laundered from the wild.

Plants

Species specific responses:

Negative: *Avonia quinaria*

trade in specimens of this species reported as 'artificially propagated' (i.e., non-wild) have actually been of wild specimens illegally harvested and laundered into the legal trade.

Positive: *Encephalartos horridus*

The trade in artificially propagated plants from South Africa has replaced the international export of wild specimens from the country.

Negative: *Euphorbia bupleurifolia*

trade in specimens of this species reported as 'artificially propagated' (i.e., non-wild) have actually been of wild specimens illegally harvested and laundered into the legal trade.

Negative: *Pachypodium bispinosum*

trade in specimens of this species reported as 'artificially propagated' (i.e., non-wild) have actually been of wild specimens illegally harvested and laundered into the legal trade.

Type of species and specimens

This varies by both species and specimens in trade. As mentioned previously, species differ in their life history strategies with long-lived and slower growing species often presenting challenges for the artificial propagation of specimens that are in demand. These characteristics put such species at higher risk of wild collection to supply the demand through the laundering of desired specimens as artificially propagated. The removal and trade of large specimens in particular, which cannot be obtained quickly under propagation, is also highly destructive for long-lived, slow generating species that rely on adult plant persistence for regeneration. Trade in seeds and smaller plants collected/laundered from the wild may pose a lower risk but would likely still be detrimental in the long term especially if such activities occur too frequently and in large quantities.

The trade in non-wild specimens of faster growing, easy to propagate species, such as some species of Aloe and Crassula will not have an impact on trade in wild specimens of the same species as the demand can easily be supplied by both large and small plants produced through artificial propagation.

United States of America

Positive and negative

Vary by species

Yes, it can both alleviate the demand for wild-specimens or increase demand for wild-specimens depending on the species. How easily a species can be bred in captivity or artificially propagated, consumer product preferences, and the ability to meet consumer demand (demand can exceed the ability to produce specimens, which then puts increased pressure on wild origin specimens to meet demand).

For slow-growing, late maturing native plant species such as *Carnegiea gigantea* (Saguaro cactus), there is demand for larger wild-collected plants. However, we are also seeing commercial growers successfully artificially propagate saguaro cacti for export.

Artificial propagation of *Dionaea muscipula* (Venus flytrap) produces millions of plants, which are better suited for plant hobbyists, thus generally reducing the incentive to harvest from wild populations to meet the export demand.

For the non-native palm *Ravenea rivularis*, several U.S. commercial growers annually collect seeds from mature landscape palms (local-sourced seeds), and no longer rely on seeds harvested from wild palms in Madagascar.

OBSERVERS:

AWI, BFF, DoW, ProWildlife, SSN

-

IUCN

Negative

- Illicit trade in wild specimens is understood to be conducted to provide new genetic materials for captive-breeding centers

Ongoing hunting of Houbara continues with the justification that supplementation with translocated captive-bred birds compensates for this hunting. However, releases and hunting often occur on the territories of remnant wild populations, and this hunting affects both wild and captive-bred released birds

IWMC

Positive

Species

Not all species with specimens sourced from non-wild sources are freely traded, which makes it a pointless exercise. When South Africa was exporting lion bone from captive sources, lion poaching was reduced in South African National Parks as the bone market was being satisfied. It also promoted the breeding of lions in captivity, which new science has shown can be used for rewilding

OATA
Positive

Species

Yes, captive breeding of Zebra pleco effectively meets demand for specimens, reducing demand for illegally caught wild specimens.

Trade in live seahorses has shifted almost entirely to captive bred, leading to the majority of trade in wild specimens to be in dead dried specimens.

Links provided in submission

TRAFFIC

Positive

Species and specimens

As mentioned above, TRAFFIC believes that this is highly dependent on the species, the specimens, their value, existing governance, traceability systems, etc. Our response above is inspired by the crocodile case. Crocodile skin production systems have proven to be effective in many cases, especially when the above conditions are met. Captive breeding has been successful in meeting the demand for skins in the international trade, allowing wild populations to recover successfully. Similarly, ranching programmes have generally been successful,

as they avoid the removal of adults from the wild, result in high quality skins that fetch higher prices in the marketplace, and the benefits to local communities involved in the ranching activities provide an incentive for them to conserve the species' habitat, as well as the rest of the ecosystem and associated species.

e) Do you see conservation benefits in Production systems – source code: A / Y / D/ F / R / C

Australia

Yes – all sources except Ranched that had no response.

Australia generally considers not of wild source production systems to have a conservation benefit for their wild counterparts as they may provide a legal avenue to access species/specimens

Austria

Yes – all sources except Ranched that had no response

It is very difficult to respond to this question in a generalized fashion. It depends on the one hand on what is seen as a conservation benefit, which is not as clear as it might seem – as seen by the request at the last SC that the Secretariat should develop guidance on that. On the other hand, the source code contains very little information in itself regarding conservation benefit. If a facility is built by destroying the habitat of the species bred/propagated, this has a very negative conservation impact. If the breeding facility contributes to the conservation or expansion of habitats, the effect will be beneficial. All source codes can have a positive or negative impact, depending on the circumstances

Canada

Yes to all source codes

While Canada views the different production systems on a continuum of conservation risk, (see out response to question c)), with wild harvest having the greatest risk to population/ harvest sustainability and overall risk to wild populations decreasing as the reliance of wild specimens decreases i.e. Harvest risk W > R> Y=F > A=C=D, we also consider that when properly managed, there can be conservation benefit to all production systems, depending on the circumstances. This includes wild specimens (source code W).

As noted previously, in Canada there is little direct competition between trade in wild or captive bred/artificially propagated commodities. Trade in not wild specimens typically replaces trade in wild specimens when the wild species is protected and/or wild harvest for trade is not sustainable. The ability to trade not wild specimens can provide economic benefit that may have been lost with a harvest closure, which reduces pressure on wild populations and the potential for illegal harvest. The sale of offspring can support operations that are providing conservation benefit for re-introduction or assurance populations. However, when wild populations are reaching habitat capacity or dispersing into unfavourable habitat, adaptively managed wild harvest can maintain healthy predator-prey dynamics and reduce human-wildlife conflict.

In Canada, captive breeding of indigenous Appendix I species is limited to the peregrine falcon, gyrfalcon, and sturgeon. The conservation benefits we see between captive bred (source code C) and CITES registered (source code D) is negligible.

Trade in source code F specimens can provide some conservation benefit to wild populations as they provide an alternative to direct wild harvest while facilities that are in accordance with Resolution Conf. 10.16 are being established. This is particularly important for species with longer generation times.

Canada does not have a lot of experience with Source code R as we do not tend to have species with a life history that is best adapted to the take of an early life stage from the wild. There is the occasional take of bird eggs, but this is rare and is considered source code W in Canada.

Canada has not yet implemented source code Y and cannot comment on the conservation benefit of this source code except that it is potentially useful to monitor both wild trade and trade that is not in accordance with Resolution Conf. 11.11 separately.

China

Yes to all sources

Use of wildlife specimen mainly come from captive breeding source, which reduces pressures on wild source

Germany

Yes to all sources

In case of species whose wild populations are threatened from over-exploitation and trade, supply from artificial propagation and captive breeding, if the supply is qualitatively and quantitatively on sufficient levels, can lower pressures as the supply may cover at least parts of the overall demand.

Indonesia

Yes – all production systems

Captive breeding of wild plants and animal species is intended to:

a. Obtain wild plants and animal species ensuring the amount, quality, species purity and genetic biodiversity for utilization purposes in order to decrease direct pressure to population in natural habitat;

b. Get certainty administratively and physically that specimen utilization of wild plants and animals from captive breeding activities is really sourced from captive breeding.

The obligation to restock the wild populations by business actors is expected to increase the population

(1) Each captive breeders require to conduct restocking at least 10 % of the specimen of protected plants and animals as a result from captive management that has been meet the prerequisite of the standard qualification of captive management.

(2) Restocking as referred in verse (1) shall be conducted when fulfill the requirements as follows:

a. Possess high value of genetic, very much close to its parent stock, germ or seed;

b. Wild population are low, then with restocking activity will help recovery population;

c. Free from disease;

d. Physically fitness;

e. Predicted survive in the wild;

f. Releasing habitat once was naturally distribution areas or historically that this species was existed in this habitat;

g. Technically, releasing habitat should accommodate livelihood of the releasing animals;

h. Consider animals behavior.

Mexico

Yes

Trade in artificially propagated plants does not exert pressure on wild populations. In addition, conservation activities are carried out with some species (e.g. *Beucarnea recurvata* - Elephant's foot, *Kroenlenia gusonii* = *Echinocactus grousonii* – Biznaga

South Africa

Animals:

Yes for Source codes: D, F, R and C

Commercial purposes (source code D)

- There is a requirement to show a conservation benefit to species in the wild.
- Increased oversight and monitoring to ensure sustainability.
- Meet the demand internationally for the species or its derivatives and reduces the risks of illegal trade in the species and its derivates that is more difficult to monitor and/or regulate.

Born in Captivity (Source code F)

- It appears possible that it could have a conservation benefit, if a trade in source code F specimens incentivizes those people living with and utilising the species to monitor and conserve the source population of the species. South Africa however has not yet attempted to do this.

Ranched specimens (Source code R)

It appears possible that it could have a conservation benefit, if a trade in source code R specimens incentivizes those people living with and utilising the species to monitor and conserve the source population of the species. South Africa however has not yet attempted to do this.

Captive breeding (source code C)

- Captive breeding of species or their derivates can meet international and local demand without negatively impacting on wild populations.
- Captive bred specimens often more adaptable and welfare impacts lower on specimens than trading wild specimens.
- Generally closed systems that reduces negative impacts on wild populations if well regulated and monitored.

Source for re-introductions to supplement wild populations

Plants

Yes for source code A, Y and D

Source code A:

For the example case studies highlighted here, source code A has presented risks to the wild populations but the value of artificial propagation to supply demand for these species should not be undermined. Just as for fast-growing species where demand can be met through AP, propagation of long-lived, slow-growing species, albeit a longer process, is still possible and has a huge role to play in alleviating the pressures on wild populations under good management and oversight controls. Cycads are a good example of this, where domestic and international trade has increasingly been supplied by small and large (in the case of domestic) artificially propagated plants. The promotion of artificial propagation of in demand plants, not only contributes to the conservation and sustainable use of species but can also have large socio-economic benefits for country's wanting to trade responsibly in their botanical resources. Additionally, artificially propagated plants have the potential for use in the recovery and restoration of species that may be locally depleted or extinct.

Source code Y:

his form of production can be very beneficial for meeting the demand for longer-lived, less easy to propagate and threatened species in a sustainable manner where it is well managed. Benefits include aiding directly in an increased supply of in-demand plants; improved monitoring and better management of wild populations; ensuring the regeneration and recovery of threatened wild populations; and incentives for communities to better conserve the resource base.

Source code D:

By allowing trade in artificially propagated specimens of App I species, this production system promotes good practices/disincentivises non-compliance within the supply chain so that the production does not have any impact on the wild populations. Source code D allows for the commercial demand for Appendix I species to be met without impacting on the wild populations, where well regulated. The provisions set out in paragraph 4 of CITES Resolution 11.11 (Rev. CoP18) - which makes allowance for plants grown from wild-collected propagules of Appendix I listed species to be considered as artificially propagated specimens, under certain conditions - are important and valuable to retain and explore, particularly

for slow-growing, slow-reproducing, and long-lived species such as cycads. Such a provision could boost the availability of artificially propagated specimens of rare species in a manner that does not impact the long-term conservation of such species.

It is important to note a possible oversight in the provisions of trading commercially in App I listed plants, where unlike for animal species, there is no requirement to show any conservation benefit from trade of App I plant species. This is inconsistent and unfortunate as such a requirement has the potential to further bolster the conservation of valuable and rare plant species through sustainable trade.

United States of America

Yes for all sources except:

Yes and No for App I specimens bred in captivity or artificially propagated (source code D).

OBSERVERS:

AWI, BFF, DoW, ProWildlife, SSN

We are concerned that this question only seeks information on benefits of these individual propagation systems instead of the risks. The associated roadmap clearly requests that "the Animals and Plants Committee working group is asked to consider the conservation risks for wild populations associated with non-wild trade".

IUCN

As regards bustards specifically:

High-volume captive breeding of bustards can only be achieved through artificial insemination, which requires taming. This removes from the breeding pool the individuals most wary of threats (i.e. hunting and predation). The massive trade currently conducted in both Africa and Asia represents threats to the small remaining wild populations through genetic swamping with maladaptive traits related to adaptation to captivity and competition for resources.

Specimens hatched from eggs collected from wild parents and "head-started" in captivity, which for Houbara are typically coded as "F" but occasionally also "R", have potential to retain greater adaptations beneficial for survival in the wild than bustards captive-bred through artificial insemination. Care must be taken to ensure accountability in these programs to ensure a net positive impact on the wild population.

IWMC

Yes – all

If it is sustainable and practiced responsibly, there can only be positive benefits for both the species, and the people involved.

OATA
Yes for source code D, R and C

TRAFFIC

Yes to all sources

Again, we could see benefits in all of these production systems, provided that the factors mentioned above are met (strong traceability, governance, transparency, monitoring, law enforcement, proportionate supply and demand, cost-effective production systems, etc.)

f) If specimens not of wild source (captive breeding, artificial propagation, etc.) were less common or discontinued is it likely that wild specimens of the same species would come under greater trade pressure? Yes/No

Australia

Yes

Australia believes this would be dependent on the species and individual circumstance to provide a robust answer. However, we are generally of the view that if not of wild source options didn't exist, there is a likelihood that illegal wild take would increase, potentially placing pressure on wild populations, species sustainability and potentially creating broader ecological pressures. Example: crocodile farming

Austria

Yes

Probably one of the most striking example in which discontinuation might have large effects on wild populations are carnivorous plants. For example the Venus Flytrap (Dionaea muscipula), since 1992 exporter reported 10.8 million specimen with source "A" in the CITES trade database, clearly showing strong demand in this species. At the same time, exporter only reported 17.000 specimen with source "W". Even if just a fraction of the demand for "A" specimen would be diverted to "W" specimen, the species would be put under enormous pressure. There is a demand for carnivorous plants and it can only be satisfied in a sustainable manner due to trade in artificially propagated plants.

The same is true for many other species as well, but obviously, circumstances differ for different species.

Canada

Yes

Again, Canada does not have direct experience of this. However, we believe that this will be dependent on the market demand and the economic reliance of local people on the discontinued trade. It is our experience in Canada that when an economically valuable trade is discontinued due to either unsustainability or market closure, that people will seek alternative sources of revenue. In some cases, this will impact wild populations of the same species, in other cases, this could impact other wild species that can be traded as substitutes.

China

Yes

The Use of non-wild specimens can reduce the use of wild specimens

Colombia

Yes. Depends on demand and conservation strategies.

Germany

Yes

See responses above, and especially consider examples of crocodile ranching which took pressure of wild populations and led to improved conservation status of the respective species

Indonesia

Yes

However, MA imposes controls for wild harvest such as quotas thus, to prevent the wild specimens of the same species be under trade pressure.

Mexico

Yes

Specimens from captive harvesting or artificial reproduction of non-wild origin allow for sustainability without affecting wildlife populations. For example, in the harvesting activities for the production of handicrafts in the communities, specimens of non-wild origin are used. The suspension of the existence of these specimens would imply a risk of pressure for harvesting specimens of wild origin.

On a case-by-case basis, depending on the species and demand.

Fauna:

Totoaba. Although the capture of wildlife is not permitted, there are commercial alternatives for obtaining fillets through captive breeding, without generating greater pressure on wild specimens.

Global trade in reptiles has increased as in the case of *Abronia* spp. or tortoises and freshwater turtles, the lack of supply of captive-bred specimens may generate increased pressure towards wild specimens (according to the considerations of the CEC 2017 y CEC 2019), especially because of the high prices that specimens can fetch (CITES proposals for the inclusion of turtles in the appendices of CITES). CoP19 Prop. 28 Rev. 1, CoP19 Prop. 29; CoP19 Prop. 30).

Flora, there are species that present intrinsic biological, reproductive and demographic restrictions that, together with land use change and illegal extraction of wildlife specimens, compromise the permanence and viability of their wild populations, as is the case of many cacti, for example *Ariocarpus retusus* (PC25 Doc. 39.2), if these species were not artificially reproduced in nurseries, harvesting pressure would significantly affect their wild populations. Similarly, there are tree species with high market demand for their timber characteristics that, if they were not artificially propagated, the pressure on wildlife populations would increase to meet market demand, as in *Cedrella spp.* species, where 47% of the timber trade in this genus comes from trees that are artificially propagated (CoP18 Prop. 57).

South Africa

Animals:

Yes.

As long as demand persists, it will be met. If there are no captive bred specimens, the animals will be sourced from wild populations this is unlikely to be sustainable in many cases

Plants

The trade in artificially propagated plants, notwithstanding the current challenges highlighted above for some species, provides an important alternative supply to wild-collected plants of in demand species. In the absence of such supplies, and especially where oversight is lacking, demand has and will continue to be met from wild populations as outlined in the case studies presented here. There are many more such as examples of South African plant species in high demand from emerging horticultural and ornamental plant markets that have not yet been sufficiently supplied through artificial propagation. Species at greater risk are those that are rare or threatened and slow-growing in nature as well as those for which the wild-characteristics are desired. Nevertheless, the pressures will remain more urgent and more severe in the absence of artificially propagated specimens and alternative supplies.

United States of America

Yes and No

That is a complex issue that is not the same for all species. For some species, captive breeding can help reduce demand but for other species it can help increase demand. The latter has been seen in bear bile, rhinoceros horn, tiger specimens, and snake venom. Wild source is somehow seen as better or more potent or a sign of economic prosperity (status – can afford to buy wild) and in such cases, exposure to/availability of captive specimens may stimulate demand for wild.

Also potential issue of laundering in range countries - farms often also trade in wild-caught animals.

OBSERVERS:

AWI, BFF, DoW, ProWildlife, SSN

A related question might ask if trade in color varieties, cultivars, etc. has an effect on demand for wild-type specimens.

IUCN

Captive-breeding may have reduced the trade in wild-caught Houbara for the purpose of training falcons. At the same time, a new but likely smaller purpose of trade in wild Houbara has emerged, as fresh breeding stock is collected from the wild in attempts to address congenital issues which have emerged over successive generations in captive-breeding facilities.

IWMC

Yes

The demand will not go away. It is important to work towards long-term sustainable supply chains for all natural resources- not to end trade in “endangered” species.

OATA
Yes

Based on responses to previous questions

TRAFFIC

Again, it is all relative. This could be the case for some species in some circumstances. If crocodilian skins were no longer produced by these production systems and demand exceeded the potential supply of sustainably harvested wild-sourced skins, wild populations could be at risk of overexploitation. However, if demand were lower than the potential supply from the wild, well-managed, legal and sustainable wild-sourced skins could supply the market while generating benefits for the various actors in the supply chain and supporting the livelihoods of IPs and LCs.