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

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Lyon (France), 7 - 11 March 2022

SINGAPORE'S COMMENTS ON THE REVIEW OF THE
ELEPHANT TRADE INFORMATION SYSTEM PROGRAMME

This document has been submitted by Singapore in relation to agenda item 12 on *Review of the ETIS Programme.*[*]

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

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) – Singapore's Comments on the Review of the Elephant Trade Information System (ETIS) Programme for the 74th Meeting of the Standing Committee to CITES (SC74)

Introduction

1.   Singapore has previously provided comments on the ETIS methodology in the dossier submitted on 19th January 2017.[1] To recap, Singapore has previously raised a number of issues that pertain to ETIS's operations, data collection, validation, and management, and concerns regarding a lack of consultations, clarity in methodology, and verification of data. Following the responses to Singapore's comments in SC69 Inf.22, Singapore has also followed up with a submission of observations in February 2018.

2.   At its 70th meeting (SC70), the Standing Committee adopted the Terms of Reference for a review of the ETIS programme in the Annex to document SC70 Com.15. As reflected in document SC70 Sum.12 (rev 1) in connection to the review of the ETIS programme, the Standing Committee made the following request:

> "The Standing Committee requested the Secretariat to:
> ii) issue a Notification to Parties requesting Parties to submit written observations on the ETIS methodology to be considered in the review process to the Secretariat by 28 February 2019; and to provide financial support for the review of the ETIS programme."

3.   In response to the above-mentioned call for submissions by the Secretariat, Singapore submitted our observations on 25 February 2019

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[1] see document SC69 Doc. 29.3 Annex 5, Appendix

on the ETIS methodology in Annex A for the Secretariat and the MIKE-ETIS Technical Advisory Group to consider in the review process.

4.   Singapore would like to thank the Secretariat for preparing the report on the review of the ETIS programme (SC74 Doc.12) based on CoP18 (Doc.69.1) and thank the independent consultants on the full review reports (SC Information Document 1).

Comments on review findings of the ETIS programme

5.   The ETIS analysis is the instrument used to provide the basis for identifying parties for participation in the NIAP process. To be credible, there is a critical need for transparency, objectivity and clarity in the process and approach. Transparency cannot be hindered by capacity constraints.

6.   The review findings have confirmed concerns which Singapore raised previously on the ETIS methodology, including the implications of making assumptions, the implications of using weak proxy variables and the effect of each proxy variates. Such limitations should be clearly explained to Parties. The cluster analysis part of the ETIS methodology remains unclear and subjective. There is still no explanation as to whether the clustering is based on previous years' reports or particular statistical criterion. The consultants also recognised this as one of the main limitations of their review was the understanding of the cluster analysis, as the consultants were not able to engage the main statisticians responsible for the formulation of the ETIS methodology.

Data Verification

7.   At its 70th meeting[2], the Standing Committee requested TRAFFIC to compile aggregated summaries of the validated ETIS data for presentation on the CITES website and Parties should continue to be involved in the validation of ETIS data. Singapore retrieved the aggregate data on the CITES website and found discrepancy between the data submitted by Singapore and the data used in the analysis. TRAFFIC explained that worked ivory weights were adjusted to account[3] for wastage during processing. Adjusted data should be annotated and justified. This will facilitate parties to understand and validate the data accordingly. TRAFFIC needs to provide how 30% of raw ivory was lost during processing was determined.

8.   On the applicability and appropriateness of data sources and use of data, we agree with the review findings that a more comprehensive, in depth and clearer explanation of the data sources used by TRAFFIC must be provided to the Parties. In addition, Singapore would like to reiterate that Parties must be consulted on data analysis and interpretation as well and not only the MIKE-ETIS-TAG in accordance Paragraph 5 of Annex 1 of the Resolution 10.10 (Rev. CoP18).

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[2] SC70 Summary Record, Agenda item 49 Decision 17.218 (Rev.CoP18)
[3] TRAFFIC analyst, Sharon Baruch-Mordo explained that on raw ivory equivalent (RIE) conversion where it was determined that 0.3 is wasted when processing ivory. Hence the data used for TRAFFIC analysis was divided by 0.7 to compute the raw ivory data.

Concerns on ETIS Methodology

9.   Singapore also earlier registered our concerns with the ETIS cluster analysis in the information dossier sent in January 2017[4] and on 25 February 2019. Our concerns were similar reflected in the review report, which urgently needs to be addressed.

10.   First, while the cluster analysis seeks to "identify countries with similar trade characteristics", the report acknowledges that "not all groups have a clear cohesion in terms of all definable characteristics". This can result in generalisations at the cluster level that misrepresent individual countries' positions.

11.   Second, Singapore remains concerned about the use of proxy variables to obtain the estimates used for the cluster analysis. Singapore earlier highlighted that the proxy variables are likely weakly related to both seizure and report rates, and also pointed out issues with the use of Deviance Information Criteria[5] to select these proxy variables.[6]

12.   With regard to specific proxy variables, Singapore has raised issues on the use of the *Law Enforcement (LE) Ratio* as a proxy variable to determine seizure rates across countries as the LE Ratio is likely to be biased against countries at the start of the trade chain.[7] While TRAFFIC

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[4] Please see document SC69 Doc.29.3 Annex 5 (Appendix).

[5] Deviance Information Criteria (DIC) is implemented in OpenBUGS which is a software for the Bayesian analysis of complex statistical models.

[6] Li et al (2015) and Chan and Grant (2016).

[7] The LE Ratio of a country is defined as the number of seizures made within a country divided by the total number of seizures a country was involved in. It is more likely for a source country at the start of the trade chain to have a lower LE Ratio compared to a destination country at the end of the chain. This

has introduced the new Trade Chain Index to attempt to reduce this bias, the use of the LE Ratio as a proxy variable to determine seizure rates across countries remains questionable. The ETIS analysis also uses the *proportion of large-scale ivory seizures to mean weight* as a proxy variable to measure organised crime. We disagree with the assumption that "large-scale movements of ivory are likely to represent organised criminal activity". The alleged use of Singapore as a transit point for illegal ivory shipments by organised crime syndicates was addressed during the CITES Secretariat's mission to Singapore in April 2017.[8]

13.   Finally, it remains unclear to us why clustering, which is a descriptive technique, is used as a basis for decision-making or inference about individual countries. We had previously pointed out the lack of justification and inconsistencies across ETIS reports (e.g. the cut-off point in the dendrogram[9], which determines the number of clusters). The report acknowledges that the clustering method is "subjective to a degree". It is especially given this subjectivity that we are concerned that the categorisation of Parties, which forms the foundation for recommendations for the NIAP process, is done on the basis of clustering instead of prioritising countries' individual contexts.

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is because a source country has more opportunity to be implicated in other countries' seizures down the chain, thereby increasing its total number of seizures.

[8] The report SC69 Doc. 29.3 A5, that Singapore submitted on 27 September 2017, touched on this aspect of the Secretariat's mission to Singapore. In response to allegations that illegal syndicates could choose to route their cargoes through Singapore, we clarified that neither shippers nor consignees can choose to route their cargoes through any specific transhipment port, as shipping routes are worked out by a central planner at carriers' headquarters. We have also explained that illegal syndicates would not store containers with illegal goods at our port as the costs are prohibitive, given our port's limited land area and high traffic. In addition, as dwell time is a key performance indicator, it would be conspicuous for any container to be staying unduly long.

[9] Refer to Figure 7 of the ETIS report. In 2009, the cut-off height was well under 5 on the y-axis. In 2013, it was above 5. In 2016, it was under 5. In 2019, it was again above 5.

14.   The review acknowledged that the current and future covariates or proxy variables to be used for ETIS analyses must be thoroughly tested and validated. It is important that parties should be informed and understand the testing and validation process of the covariates.

15.   Singapore would like to urge MIKE-ETIS Technical Advisory Group to pay careful attention to the statistical tools used in the ETIS methodology. In particular, all existing & future statistical tools used must be properly assessed (i.e. whether it is suitable for decision making) and checked for robustness before usage.

Ivory Trade Chain

16.   Despite all the preceding issues, a new variable, the "Trade Chain Index", has been introduced. It is also not clear the extent of the impact of this variable on LE Ratio.

17.   ETIS analysis needs to be clear and transparent and able to stand up to reasoning. For instance, if high tonnage of seizures is taken in the analysis to imply that a transit country is affected by ivory trade and thus accorded an adverse high score in the ivory trade scale and resulting in the country being listed, then this approach could have a perverse effect on enforcement efforts.

18.   Transiting countries that do their due diligence in detecting and seizing large quantity of illegal ivory specimens moving through their ports would be ironically penalised unjustly for doing so.

Conclusion

19.   Singapore notes that the review concluded that the ETIS analysis can support CITES processes and decision making, such as the NIAP process. Singapore would like to stress that the ETIS analysis has limitations, and it is important that these limitations must be communicated clearly to all Parties.

20.   Singapore notes, from document SC69 Inf. 47, that the ultimate aim of the ETIS review is to ensure that the ETIS analysis will be "understood, accepted and used confidently and appropriately by the Parties in the fulfilment of the requirements set out in Resolution Conf. 10.10 (Rev CoP17)." Singapore would like to reiterate the importance of the ETIS analysis being fair, robust, transparent and scientifically sound.