REUDED TO SKIN AND BONES RE-EAMINED
An analysis of Tiger seizures from 13 range countries from 2000-2015
Sarah Stoner and Kanitha Krishnasamy
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Front cover photograph: Young female Sumatran tiger.

Credit: Tomonishi/Dreamstime.com
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Sarah Stoner and Kanitha Krishnasamy

Young female Sumatran tiger.
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ABBREVIATIONS AND ACRONYMS

ASEAN-WEN .................................................Association of Southeast Asian Nations Wildlife Enforcement Network
CITES .......................................................Convention on International Trade in Endangered Species of Wild Fauna and Flora
CoP .............................................................Conference of the Parties
ENV .............................................................Education for Nature Viet Nam
EIA .............................................................Environmental Investigation Agency
Lao PDR ..............................................................Laos People's Democratic Republic
SAWEN ............................................................South Asia Wildlife Enforcement Network
TRC ..............................................................Tiger Range Countries

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The authors would like to thank the governments of Bangladesh and Malaysia for supplying data in 2016 and Bhutan, India, Lao People's Democratic Republic, Myanmar and Thailand for supplying data in 2012 referred to throughout this report.

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OVERVIEW

Illegal trade and the trafficking of Tiger *Panthera tigris*, as well as their parts, products and derivatives, and the poaching which supplies it, is the most immediate threat to the survival of wild Tigers. A new minimum estimate of the number of Tigers that now exist in the wild of over 3890 was released by WWF in April 2016. Much of this change stems from the release of new national surveys results in a number of Tiger range countries (TRCs), many of which employed more rigorous methods of sampling compared to previous surveys efforts (WWF, 2016). Studies also indicate that the known Tiger range has declined by 42% between 2006 and 2014, attributed to actual range decline and a reflection of better data collection methods and increase in Tiger surveys (Goodrich *et al*, 2015). Current knowledge on the range and number of wild Tigers has improved, yet poaching and illegal trade shows no signs of abating. Additionally, the role of captive Tiger facilities has become more relevant in recent years.

In 2010 and 2013, TRAFFIC produced two systematic reports analysing Tiger seizures from range countries that described trafficking patterns (Verheij *et al*., 2010; Stoner and Pervushina, 2013). This 2016 report presents an updated situational analysis, assessing information over a 16-year period from January 2000 to December 2015 for all Tiger range countries (TRCs), using a combination of data acquired from governments and open source media reports. During May-June 2016, TRAFFIC, with the assistance of the Global Tiger Forum (GTF), formally requested seizure data (for incidents occurring between January 2012 and 2016) from the government departments responsible for gathering illegal wildlife seizure data within each TRC. Only government data from Bangladesh and Malaysia was supplied, and India pointed TRAFFIC to source required information from Tigernet. The governments of Bhutan, India, Lao PDR, Myanmar and Thailand supplied data previously to TRAFFIC to service Tiger trade analysis for previous reporting periods (Verheij *et al*, 2010, Stoner and Pervushina, 2013). However, the majority of this dataset comprises Tiger seizures held within TRAFFIC’s database that are reported within the media or from openly available sources, such as Tigernet in India. Any duplicate incidents were removed. Data parameters did not consider seizures that have taken place outside the 13 TRCs (including, for example: seizures that originated from or are destined for any TRC).

Data have been analysed to show overall trends for the full 16 years as well as a closer examination of changes over time across four quarterly periods: 2000-2003 (Q1), 2004-2007 (Q2), 2008-2011 (Q3) and 2012-2015 (Q4). TRAFFIC is preparing a full report of this analysis, which aims to illustrate findings on the trade in Tigers at a global level, while also describing trends in each TRC through country profiles, describing key considerations at a country-specific level (Stoner *et al*., in prep).

This Briefing Document highlights top-line findings from the detailed analysis over the 16 years, including key occurrences and patterns over the period assessed. Key recommendations are provided for consideration by actors at national, regional and international levels.
METHODS

To ensure consistency, and render seizure data comparable with earlier TRAFFIC reports (Verheij et al, 2010, Stoner and Pervushina, 2013), the same counting method was used to estimate the number of individuals found in trade. Records of seized items were tallied as units that could be used to calculate the number of Tigers involved in each seizure.

Quantities of body parts equivalent to one or more Tigers: counted in seizures involving claws, canine teeth, heads, ribs, legs, penises, skulls and jaw bones. For example, between one and 18 claws in a seizure were deemed to equate to a single Tiger because Tigers have 18 claws.

Complete pieces that represented whole Tigers: counted in seizures involving whole skins, full skeletons, complete carcasses and live animals.

Quantities of Tiger derivatives: counted in seizures of meat and processed products, like medicines, wine and are the most difficult to quantify. Hence, individual seizure incidents containing such were conservatively considered to represent only one Tiger.
CITES Oversight

All Tigers have been listed in CITES Appendix I since 1975 (with the exception of the Amur Tiger sub-species *Panthera tigris altaica*, which was included in 1987). However, poaching and illegal trade continues both domestically and internationally, enabled by legal shortcomings which allow Tigers to be trafficked from both wild and captive sources, and a lack of law enforcement effectiveness at all levels.

The Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has issued numerous notifications to Parties, in 2011\(^1\), 2012\(^2\), 2013\(^3\) and 2015\(^4\) to report on the progress to address Resolution Conf. 12.5 on *Conservation of and trade in tigers and other Appendix-I Asian big cat species*. Further, decision 14.69 taken in at the 14th CITES Conference of Parties (CoP) in 2007 and Notification No.2008/059 regarding *Tiger-breeding operations* was sent to Parties in October 2008 regarding the implementation of this decision. Questionnaires were also developed by the CITES Secretariat to facilitate reporting by Parties; the IUCN/TRAFFIC Review of implementation of Resolution Conf. 12.5 for the 65th Standing Committee meeting (SC65) in July 2014 led to several decisions to address this problem, including some of which will be pertinent for CITES CoP17 deliberations.

The reports submitted by those TRCs which have responded to requests for information, however, have consistently been noted to lack sufficient information to allow for a thorough assessment of progress against implementation. To guide and facilitate the reporting process for the more recent periods, the Standing Committee’s inter-sessional Working Group on Asian Big Cats\(^5\), with the assistance of the CITES Secretariat, prepared a questionnaire\(^6\) inviting Parties to report on the progress of their implementation by August 2015, covering the five main areas: 1: Concerning legislative and regulatory measures, 2: Concerning national law enforcement, 3: Concerning demand reduction, education and awareness, 4: Concerning the prevention of illegal trade in parts and derivatives from breeding facilities and 5: Concerning the management of national and privately-held stocks of parts and derivatives. Twelve Parties responded to this call, only six of which were TRCs: Cambodia, China, Malaysia, Nepal, Thailand and Viet Nam.

Reports from both the CITES Secretariat\(^7\) and the Standing Committee’s inter-sessional Working Group on Asian Big Cats\(^8\) noted that improvements in legislation was still required in some countries, although much of this focused on the issue of captive breeding, without detailing other aspects of penalties, and legislative coverage for non-native species. The reports also noted gaps in legislation which impeded effective law enforcement including seizures, arrests, investigations and prosecution. In addition, inadequate and low rates of reporting were suggested to have obstructed any effort in evaluating progress being made by Parties. Captive breeding and matters concerning privately-held stocks of parts and derivatives were also prominently unresolved. The Working Group also noted that measures taken by some countries to prevent leakage of Tiger products from captive breeding facilities into domestic markets remained unclear. All five areas of concern pursued by the Working Group are explored in this report.

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\(^1\) [https://cites.org/eng/notif/2011/E014.pdf](https://cites.org/eng/notif/2011/E014.pdf)  
\(^2\) [https://cites.org/sites/default/files/notif/2012/E054.pdf](https://cites.org/sites/default/files/notif/2012/E054.pdf)  
\(^3\) [https://cites.org/sites/default/files/notif/E-Notif-2013-037.pdf](https://cites.org/sites/default/files/notif/E-Notif-2013-037.pdf)  
\(^4\) [https://cites.org/sites/default/files/notif/E-Notif%202015-006.pdf](https://cites.org/sites/default/files/notif/E-Notif%202015-006.pdf)  
\(^5\) “Asian Big Cats,” include Tiger, snow leopard, clouded leopards, and subspecies of leopard, cheetah and lion  
\(^6\) [https://cites.org/sites/default/files/com/sc/66/E-SC66-44.01.pdf](https://cites.org/sites/default/files/com/sc/66/E-SC66-44.01.pdf)  
\(^7\) [https://cites.org/sites/default/files/eng/com/sc/66/E-SC66-44.02.pdf](https://cites.org/sites/default/files/eng/com/sc/66/E-SC66-44.02.pdf)  

\(^3\) [TRAFFIC Report: Brief Document: Reduced to Skin and Bones Re-Examined: An Analysis of Tiger seizures from 13 range countries from 2000-2015](#)
RESULTS

Data Analysis

Over the 16-year period between January 1 2000 and December 31 2015, a total of 801 Tiger seizures incidents were reported across 13 TRCs, equating to the seizure of a minimum of 1755 Tigers. On average, this represents 50 seizures and a minimum of 110 Tigers reported to have been seized annually. The analysis highlights an additional 147 further seizure incidents involving an additional 332 Tigers seized since TRAFFIC’s previous analysis in 2013 (which at the time totalled 654 recorded seizures during 2000-2012, involving a minimum of 1425 Tigers seized during that period). This increase, however, is attributed not only to the incidents reported between 2012 and 2015, but also includes data not previously analysed. For example, Cambodia did not previously feature in TRAFFIC’s seizure incidents previously, and therefore was not included as part of TRAFFIC’s analysis in 2013 or 2010. The application of statistical tests was conducted to examine the generalized linear regression\(^9\) throughout this time period. Results show a statistically significant increase in the both the number of seizures being reported\(^{10}\) (Figure 1) and the minimum number of Tigers found in trade per year\(^{11}\)(Figure 2).

This apparent increase in Tiger seizures is certainly a significant cause of concern. It is plausible that the increasing trend could be attributed to changes in reporting practises or improved law enforcement effort rather than an actual increase in crime levels. Strengthened compilation and analysis of seizure data and assessment of enforcement and reporting effectiveness are necessary to improve understanding of how reliable and free of bias these uncorrected trends might be, a subject explored further in the report. Nevertheless, the available data clearly indicates that there is no room for complacency.

Figure 1: Reported Seizures for all TRCs (2000-2015)

Figure 2: Minimum Number of Tigers Seized for all TRCs (2000-2015)

\(^9\) Linear regression is used to determine relationships between two variables; here we refer to the number of Tiger seizures by year between 2000-2015
\(^{10}\) Estimate ± SE = 0.97 ± 1.05, \(t = 0.93, P = 0.37\)
\(^{11}\) Min. 0.03 ± 0.02
Table 1: Total Number of Seizures Reported by TRCs Broken into Four Quarters (2000-2015)

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<tbody>
<tr>
<td>Bangladesh</td>
<td>2 1%</td>
<td>1 1%</td>
<td>6 2%</td>
<td>11 6%</td>
<td>20 2%</td>
</tr>
<tr>
<td>Bhutan</td>
<td>1 1%</td>
<td>1 1%</td>
<td>1 0%</td>
<td>3 2%</td>
<td>6 1%</td>
</tr>
<tr>
<td>Cambodia</td>
<td>3 2%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>1 1%</td>
<td>4 0%</td>
</tr>
<tr>
<td>China</td>
<td>11 7%</td>
<td>19 11%</td>
<td>22 8%</td>
<td>26 13%</td>
<td>78 10%</td>
</tr>
<tr>
<td>India</td>
<td>116 75%</td>
<td>89 50%</td>
<td>110 40%</td>
<td>40 21%</td>
<td>355 44%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0 0%</td>
<td>13 7%</td>
<td>21 8%</td>
<td>36 18%</td>
<td>70 9%</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>0 0%</td>
<td>4 2%</td>
<td>4 1%</td>
<td>1 1%</td>
<td>9 1%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>7 5%</td>
<td>5 3%</td>
<td>21 8%</td>
<td>7 4%</td>
<td>40 5%</td>
</tr>
<tr>
<td>Myanmar</td>
<td>0 0%</td>
<td>0 0%</td>
<td>1 0%</td>
<td>2 1%</td>
<td>3 0%</td>
</tr>
<tr>
<td>Nepal</td>
<td>9 6%</td>
<td>25 14%</td>
<td>36 13%</td>
<td>14 7%</td>
<td>84 10%</td>
</tr>
<tr>
<td>Russia</td>
<td>4 3%</td>
<td>6 3%</td>
<td>8 3%</td>
<td>12 6%</td>
<td>30 4%</td>
</tr>
<tr>
<td>Thailand</td>
<td>1 1%</td>
<td>6 3%</td>
<td>17 6%</td>
<td>17 9%</td>
<td>41 5%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>0 0%</td>
<td>8 5%</td>
<td>29 11%</td>
<td>24 12%</td>
<td>61 8%</td>
</tr>
<tr>
<td>Total</td>
<td>154 100%</td>
<td>177 100%</td>
<td>276 100%</td>
<td>194 100%</td>
<td>801 100%</td>
</tr>
</tbody>
</table>

When looking at trends by each four-year quarterly period, the top three countries making consistent increases in numbers of seizure incidents every quarterly period were China, Indonesia and Thailand. Of the three, only Indonesia and Thailand show an increasing number of Tigers seized each quarter (Table 2). Thailand seized 166 Tigers in the period 2012-2015, compared to 64 Tigers seized in the previous 2008-2011 period. The seizure of 100 Tigers from the “Tiger temple” in 2015 largely explains this steep rise for Thailand. Indeed, this analysis highlights the prominent role of seizures where Tiger specimens have likely originated from captive Tiger facilities, including farms, zoos and tourist locations. An estimated minimum 297 of the 1755 Tigers (17%) seized across the 801 reported seizures over 16 years reportedly originated from a captive facility (for further details, see Table 3, Page 11).

Table 2: Total Number of Tigers Seized Reported by TRCs Broken into Four Quarters (2000-2015)

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>13 4%</td>
<td>1 0%</td>
<td>9 2%</td>
<td>18 4%</td>
<td>41 2%</td>
</tr>
<tr>
<td>Bhutan</td>
<td>1 0%</td>
<td>1 0%</td>
<td>1 0%</td>
<td>3 1%</td>
<td>6 0%</td>
</tr>
<tr>
<td>Cambodia</td>
<td>7 2%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>1 0%</td>
<td>8 0%</td>
</tr>
<tr>
<td>China</td>
<td>52 16%</td>
<td>35 10%</td>
<td>33 6%</td>
<td>55 11%</td>
<td>175 10%</td>
</tr>
<tr>
<td>India</td>
<td>182 57%</td>
<td>162 44%</td>
<td>147 26%</td>
<td>49 10%</td>
<td>540 31%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0 0%</td>
<td>19 5%</td>
<td>38 7%</td>
<td>79 16%</td>
<td>136 8%</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>0 0%</td>
<td>8 2%</td>
<td>20 4%</td>
<td>11 2%</td>
<td>39 2%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>15 5%</td>
<td>5 1%</td>
<td>55 10%</td>
<td>28 6%</td>
<td>103 7%</td>
</tr>
<tr>
<td>Myanmar</td>
<td>0 0%</td>
<td>0 0%</td>
<td>1 0%</td>
<td>2 0%</td>
<td>3 0%</td>
</tr>
<tr>
<td>Nepal</td>
<td>11 3%</td>
<td>79 21%</td>
<td>65 11%</td>
<td>31 5%</td>
<td>186 11%</td>
</tr>
<tr>
<td>Russia</td>
<td>30 9%</td>
<td>33 9%</td>
<td>15 3%</td>
<td>24 5%</td>
<td>102 7%</td>
</tr>
<tr>
<td>Thailand</td>
<td>11 3%</td>
<td>13 4%</td>
<td>64 11%</td>
<td>166 33%</td>
<td>254 14%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>0 0%</td>
<td>12 3%</td>
<td>116 21%</td>
<td>34 7%</td>
<td>162 9%</td>
</tr>
<tr>
<td>Total</td>
<td>322 100%</td>
<td>368 100%</td>
<td>564 100%</td>
<td>501 100%</td>
<td>1755 100%</td>
</tr>
</tbody>
</table>
Tiger Commodities in trade

Whole Tiger skins were the most commonly seized commodity type during the period under review and account for 43% (758) of the Tigers found in trade between 2000 and 2015. However, long-term trends indicate a statistically significant decrease in seizure incidents involving Tiger skins for the combined picture across all Tiger range countries (Figure 3).

Figure 3: Estimated Proportional Abundances of Commodity Types (2000-2015)

During the first quarterly period (2000-2003), 214 Tiger skins were seized, although this continued to decline with every subsequent quarter, recording a minimum of 146 skins in the last quarterly period (2012-2015). One possible theory for this is the decrease of seizures in India; its reported skin and skin pieces seized after 2009 saw a significant decline.

The greatest number of Tiger bones were seized during the most recent quarterly period (2012-2015), similarly, the greatest amount of Tiger bone wine was also seized in trade during the most recent quarter, in China and Viet Nam. More Tiger canines were seized during the fourth quarterly period (227) (2012-2015) than the three previous quarters combined (105).

Figure 3 also presents an increase in the seizure of whole Tigers (both live and dead) during the period under review. A total of 263 live Tigers seized were seized over the 16-year period. Of the 13 TRCs, 10 reported seizures of live Tigers, while seven of those have only reported single figures, ranging between two to seven live Tigers. The countries which have reported substantial numbers are Thailand and Viet Nam, and there is an observed steep increase in the seizures of live Tigers, most pronounced between 2012 and 2015. During the first half of the period under review, from 2000 to 2007, only 17 live Tigers were seized. This increased to 64 between 2008 and 2011, which increased further in the final quarter (2012-2015), recording a total of 186 Tigers. As mentioned, one incident at the Tiger Temple in Thailand in 2015 when 100 Tigers were impounded, skews the significance of the 2012-2015 total for live seizures.

Broader definitions of Tiger commodity types analysed are as follows: PAR: body parts; BON: bones; SKI: skins; MIS: miscellaneous; WHO: whole specimens.
Part of a whole tiger seized in Thailand in 2012
Whole Tiger skins were the most commonly seized commodity type during the period under review. This tiger skin was one of 8 seized by authorities in Peninsular Malaysia in 2012.

The greatest amount of Tiger bone was also seized in quarterly period (2012-2015). This tiger skull and bones were among several tiger parts seized in a series of raids in Peninsular Malaysia in 2016.
Analysis challenges

Reporting inconsistencies were observed during the analysis. For example, in the case of India, for the first three quarterly periods (2000-2003, 2004-2007 and 2008-2011), India reported an average of 105 seizures by each quarter (n=Q1: 116, Q2: 89, Q3: 110). However, for the 2012-2015 period, India only reported 40 seizure cases, a drastic drop compared to previous years. A similar pattern is observed with the number of Tigers seized. This is suspected to be due to the low (perhaps incomplete) number of seizures reports verified on Tigernet (http://www.tigernet.nic.in/). Tigernet is India’s online reporting platform for incidents relating to Tiger mortality, poaching and seizures and is the only source for Tiger seizures in India from 2009 onwards in this analysis, as directed by the Indian government. The number of seizures reported on Tigernet has seen a decrease since 2010, which is not commensurate to those that are reported by the media (including law enforcement agencies). For example, a press release issued by the Delhi Police regarding a Tiger seizure in 2013 did not appear on Tigernet13.

Furthermore, despite some valuable insights gleaned from seizure information, there also appears to be a disparity in the way each of the TRCs report seizures – in cases where seizure information from government was received – and this makes meaningful and accurate analysis problematic, especially any analysis at a regional level. This situation is greatly compounded by the lack of a systematic centralised reporting system.

Geographical Analysis

Where available, locations of seizures reported across all TRCs during the 16-year period have been mapped. Map 1 illustrates all known seizures and highlights geographical clusters of trafficking activity. However, when considering the long time period this refers to, a density estimation mapping technique has been applied to each quarterly period to illustrate persistent as well as emerging hotspots (Maps 2-5).

Map 1: Tiger Seizures across TRCs (2000-2015)

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13 In September 2013 Delhi Police seized over 18 kilos of Tiger skulls, bones, nails and teeth
In addition to plotting the known locations of reported seizures, analysis has been carried out on the routes utilized in Tiger products, from origin to point of final destination, using Trademapper\(^{14}\). While route information is fairly limited and does not comprise a complete dataset, it highlights some interesting findings both within and outside Asia. Information on where the seizures were destined were available for 99 seizures (13% of the total). Of those, China was identified as the most commonly occurring destination of seizures, or where Chinese suspects were implicated, and accounted for 57% of this total.

\(^{14}\) TradeMapper is an interactive tool originally developed by TRAFFIC and WWF to visualise trade data: https://trademapper.safetiq.org/
Tigers in captive facilities

The reported seizure data also allowed TRAFFIC to further examine those that were reportedly from captive sources (Table 3). Data show an increase in the presence of whole Tigers (both live and dead/frozen) being seized from these facilities. Given the low likelihood that all Tigers in trade originate only from wild sources, farms and breeding facilities are becoming a more relevant source for how Tigers enter the trade chain. The compounding lack of regulation that may allow this to occur, requires further consideration. Although not assessed to be a statistically significant rise, these seizures are most pronounced in Lao PDR, Thailand and Viet Nam, and are mostly linked to Tigers coming from captive facilities that exist in those countries. Some 40% of Thailand’s reported seizures for the period 2012-2015 was from a single seizure at the Wat Pha Luang Bua Tiger Temple. These data conversely indicate that a declining percentage of trade over this period appears to be derived from wild-sourced animals. Further analysis is required to better understand the implications of this apparent trend.

Table 3: Estimated Number of Tigers Seized Suspected to be from Captive Sources (2000-2015)

<table>
<thead>
<tr>
<th>Country</th>
<th>Suspected Captive Source (Q1) 2000-2003</th>
<th>Suspected Captive Source (Q2) 2004-2007</th>
<th>Suspected Captive Source (Q3) 2008-2011</th>
<th>Suspected Captive Source (Q4) 2012-2015</th>
<th>Total from Captive Source</th>
</tr>
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<tbody>
<tr>
<td>Cambodia</td>
<td>7</td>
<td>0</td>
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</table>

15 In this report, the term captive facilities are used to encompass Tiger farms, captive breeding facilities and other facilities holding Tigers for tourism purposes such as Tiger Temples in Thailand and zoos.
16 Further to this, in May 2016, the Thai government conducted another round of confiscations at this same Tiger Temple, seizing 137 live Tigers.
There are now reported to be more than 200 captive Tiger facilities across Asia, with China, Lao PDR, Thailand and Viet Nam together estimated to house between 7000-8000 captive Tigers (EIA, 2016); this is far more than the estimated 3890 Tigers left in the wild today. The role of these countries has been highlighted in the CITES Secretariat’s report to the 66th meeting of the CITES Standing Committee, which noted that 74% of Tiger specimen seizures in Southeast Asia occurred in three Lower Mekong countries (Lao PDR, Thailand and Viet Nam), raising concerns about the source of Tigers for illegal trade due to the presence of breeding facilities in these countries (CITES, 2016). The suspicion being that some captive Tiger facilities provide greater accessibility to Tiger parts and products and subsequently perpetuate demand for such commodities. Furthermore, there have been reports of observations of several different brands of wine which purport to contain Tiger parts – likely of captive origin – in China, although it is not clear if these were legally authorized (Nowell and Pervushina, 2014; CITES, 2016).

Tiger farming in Africa and its links to trade in TRCs

During 2015, two Tiger seizures in China and Viet Nam occurred where the shipments originated from Africa, the parts of which can only have originated from captive sources. A TRAFFIC report in 2015 found that the export of Lion Panthera leo bones out of South Africa has grown exponentially – between 2008 and 2011, a total of 1160 skeletons were permitted for trade by the South African government with 987 specimens (85%) going to Lao PDR (Williams et al., 2015). Williams et al., pointed to the use of Lion bones as a substitute for Tiger bones in Asia, attributed to the anatomical similarities between Tiger and Lion bones, and a lack of expertise to differentiate between the two. This could potentially increase the risk of a higher number of Tiger bones being smuggled into Asia from Africa under the guise of “legal” lion bone exports. Tiger breeding in farms in South Africa is reportedly expanding, with an estimated 280 captive Tigers currently housed in at least 44 different facilities. Prior to this a report in 2014 by IUCN and TRAFFIC on the Review of Implementation of Resolution Conf. 12.5 (Rev COP 16) on Conservation of and Trade in Tigers and other Appendix-I Asian Big Cat species recommended that “Lao PDR and Viet Nam should be requested to clarify the purpose for recent sizeable imports of lion bone from South
KEY COUNTRY PROFILES

Seizure analysis has pointed to seven TRCs that appear to play a more prominent role in the Tiger trade chain. A summary for each of the seven key countries and the role it plays, is provided below, in alphabetical order.

China
In the 16 years between 2000 and 2015, China reported 78 seizures, accounting for 10% of the total across 13 TRCs. The majority of these were for just one commodity type, per seizure incident, and were most commonly reported to be Tiger skins. Overall, the seizures of skins have decreased proportionally over time, although an increase was observed just in 2013. An increase in seizures during 2013 can be partially attributed to intelligence-led and pro-active law enforcement action, such as Operation Cobra; for example, two incidents in January of that year led to the confiscation of 12 Tiger skins and 168 kg of bones, equating to a minimum of 17 Tigers. Specific location data were available for 68 of the 78 seizures reported by China. Results highlight the geographical concentration of activity to the eastern part of the country but also the greater proportion of seizures along its border areas (many close to the border of Myanmar, around the border of Viet Nam, and the province of Guangdong with close proximity to Hong Kong). Further, the threat of online trade has also been previously documented in China. TRAFFIC research in 2014 found that at least 74% of the Tiger products offered for sale online were either purported to be made of Tiger bone or have derived from Tiger bone (11%) (such as jewellery, wine, pills, plasters or glue) (Stoner, 2014). Although it was impossible to determine or verify the authenticity or origins of products being offered for sale online, it points to the relative availability of products purportedly derived from Tigers online in China.
**India**

During the 16-year period under review India has recorded the greatest number of seizures of all TRCs, accounting for 44% (355) of the total: a minimum of 540 Tigers seized, accounting for 30% of the total. Location information demonstrates that while the southern region remains a hotspot, there also appears to have been a greater number of seizures reported in the central zone in and around the State of Madhya Pradesh. A smaller cluster of seizures can also be observed along the border of Nepal in the State of Uttar Pradesh. Research finds that there is a greater probability that Tiger seizures will occur in areas where Tigers exist and therefore strengthening the need for site-based enforcement efforts (Sharma, *et al*., 2014). Furthermore, their research found that the national rail network in India is the preferred method for transporting Tigers and their parts, and is greatly determined by the fact that many train lines traverse through many protected areas across India, in contrast to the national bus service for example.

Despite the highest number of seizures recorded by India, in contrast to all other TRCs, the overall trend line indicates a statistically significant decrease in the number of seizures being reported, particularly since 2010, as described earlier in the report.

Tigernet is the first government-led central reporting mechanism for Tiger mortality and seizures of Tigers. It is currently the benchmark for other countries to emulate aiding the transparency on Tiger-crimes occurring within national jurisdiction. In order for it to be used as a reliable, accurate and up-to-date platform, it is paramount that such information is complete and made available in a timely manner, and that it sets a good model for other Tiger range countries where such systems do not exist. Indeed, if Tigernet is perfected, it would serve as a practical and exemplary tool to push for other TRCs to mirror in order to achieve more accurate reporting, where this currently does not exist.

**Indonesia**

During the most recent quarterly period (2012-2015), Indonesia seized the greatest number of Tigers (79) after Thailand17. The number of seizures reported in 2015 (17) was the highest annual amount during the entire 16-year period, compared to only eight seizures the previous year. The number of seizures of taxidermy specimens are also a cause for concern; this is most prominent in Indonesia and appears to be relatively unique, as this commodity type is not prevalent in other TRCs. During the assessed period, at least 29 taxidermy Tigers (comprising both whole and parts) were found in trade in Indonesia and all were seized during the most recent quarter (2012-2015) and demonstrates a national level demand for this product type. In February 2015, Indonesian authorities announced that a major Tiger trafficker they arrested had allegedly sold more than 100 stuffed Tigers over a 10-year period, linked to other traders and buyers that are spread out throughout Sumatra and Java (Wildlife Conservation Society, 2015). When the Indonesian government enacted its wildlife legislation in 1990, Act Number 5, it included a requirement for anyone in possession of protected species and their parts and products to register them with the government to obtain a permit. A total of 1081 stuffed and mounted Tigers skins were registered, including 100 stuffed Sumatran Tigers *Panthera tigris sumatrae* held by government officials and businessmen in the South Sumatra Province; this was in addition to at least 500 stuffed Tigers registered in privately-held stocks in Palembang and Lampung (Shepherd and Magnus, 2004). This long-documented national demand for taxidermy specimens of Tigers as a luxury item amongst the Indonesian elite, including members of the army who have been arrested in the past, is likely placing additional pressure on the declining Sumatran Tiger population (Shepherd and Magnus, 2004; Parker, 2013).

Apart from this commodity type, Indonesia’s legislation loopholes could pose additional hindrance to effective law enforcement. Indonesia’s wildlife law affords protection for the Sumatran Tiger and

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17 Which is largely skewed by the impounded of 100 Tigers at the Tiger Temple in 2015.
the now extinct Javan Tiger *Panthera tigris sondaica*. If Tiger seizures within the country involve the import or export of wild Tigers originating from other TRCs or violations from a zoo or facility holding non-native Tigers, it is legally unable to take action. This also presents management challenges for Tigers that are in privately-held stocks and / those within captive breeding facilities. The lack of protection for non-native species is a significant gap, and one that serves to highlight the inability of the country to implement CITES effectively, and raises questions about Indonesia’s “Category 1” status under the CITES National Legislation Project.

**Lao PDR**

During the 16-year period under review, Lao PDR reported nine seizures, representing 4.8% of the total, equating to 39 Tigers and accounts for 2.1% of the total number of Tigers seized. Only one seizure was reported during the most recent quarter (2012-2015), consisting of an estimated 11 live individuals suspected to be *en route* to Viet Nam. Most of the seized (dead) Tigers incidents also occurred closer to the Vietnamese border. Lao PDR is unusual among TRCs as all of its reported seizures have been of whole individuals, either live or dead Tigers, with carcasses being the most commonly seized commodity (90%). The main concern in Lao PDR is the unregulated growth of Tiger farms and the increasing opportunity for open and unregulated illegal trade within the country’s Economic Zones. The country’s Economic Zones have become notorious as locations facilitating illegal wildlife trade, including Tiger (Ghosh 2010; Nijman and Shepherd, 2014; Environmental Investigation Agency, 2015; Krishnasamy and Or, *in prep*). Any effort to eliminate illegal Tiger trafficking will need to include the effective control and monitoring including in these zones. The CITES Secretariat conducted a mission to Lao PDR in July 2016, and reported that specimens of Tigers and other wildlife are allegedly imported, exported and re-exported in violation of the Convention (CITES, 2016b). In its mission report to the 67th Meeting of the CITES Standing Committee, the Secretariat noted that it “…is concerned that some CITES species included in Appendix I or II are adversely affected by illegal, unsustainable or untraceable trade and that the provisions of the Convention are not being effectively implemented in Lao PDR”. At the 67th meeting of the CITES Standing Committee (SC67), the Lao PDR Government announced its intention to discuss ways of phasing out its Tiger farms (Wildlife Conservation Society, 2016; WWF, 2016). It is unknown what measures, including timelines for implementation, will follow from this announcement, but it is one that is welcomed.

**Myanmar**

During the period under review, Myanmar has reported three seizures, representing less than 1% of the total, equating to the seizure of three Tigers, which presents a limited picture for analysis. However, at least 10 seizures were known to have occurred in China that have originated from Myanmar. In Southeast Asia, Myanmar is thought to have the largest unregulated open markets for Tiger parts (Nijman and Shepherd, 2014; Nijman *et al*, 2016). Observations of wild cat trade at the markets of Tachilek (on the Thailand-Myanmar border) and Mong La (on the China-Myanmar border) from 2000-2014 found substantial differences in the level of trade at the two locations (Nijman and Shepherd, 2014). Crucially the incidence of trade trebled in Mong La from six Tiger parts observed in 2006 to 21 in 2014, while it decreased at Tachilek. Furthermore, traders spoken to at both locations claimed that Tiger and Leopard *Panthera pardus* products were predominantly sourced domestically, from Myanmar and from neighbouring India. Irrespective of these identified instances of illegal Tiger trade at those key markets, there is yet to be a report of a seizure occurring there and the overall low level of seizures reported by the country implies weak law enforcement. Myanmar’s open and unregulated markets remain the highest priority for action.

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15 TRAFFIC Report: *Brief Document: Reduced to Skin and Bones Re-Examined: An Analysis of Tiger seizures from 13 range countries from 2000-2015*


Thailand
During the 16-year period under review, a minimum of 254 Tigers have been seized, which represents 14% of the total. Seizure data highlight the prevalence of seizures of live specimens from 2010 onwards, with its overall Tiger numbers seized being skewed due to the impoundment of 100 Tigers from the Tiger Temple in 2015. The issue of Tiger farming in Thailand has been a controversial subject in the context of illegal trade during the last 18 months due to the activities and focus on the Wat Pa Luang Ta Bua, also known as the Tiger Temple, in the western province of Kanchanaburi. Rumours surrounding the facility and its involvement in wildlife trafficking were confirmed in 2016 when leakages of their Tigers into trade were confirmed.

While there may be an expectation of a concentration of seizures in the capital Bangkok due it being an infrastructure hub implicated in illegal trade, there appears to be a prevalence of seizures on key arterial routes. This is apparent on the highway connecting the south (from the border with Malaysia) to central Thailand and the road leading towards Vientiane, Lao PDR.

Viet Nam
Viet Nam has reported 62 seizures over 12 years (the first reported seizure was not until 2004) which represents 8% of the total. Dead whole Tiger specimens have been present in the most number of seizures, followed by live specimens. During the most recent quarter (2012-2015), seizures have been more concentrated around Hanoi, compared to previous years. Two main threats exist in Viet Nam, the first is the growth in the number of captive Tigers held in farms and their possible leakage into trade; Viet Nam seized the greatest number of live Tigers, after Thailand, during the total 16-year period. In 2012, the Vietnamese government published the official number of captive Tigers as 107 individuals across 10 facilities. That number is now understood to have increased to 180 individuals (EIA, 2016), with no obvious relationship with the conservation of wild Tigers. At the same time there's has been an increase in unregulated breeding at unregistered private facilities. In 2012, an undercover report stated that over the past decade, several villages in Do Thanh commune in central Vietnam's Nghe An province have become thriving markets for trading Tiger parts; the report documented the presence of illegal Tiger farms where animals are kept in captivity in small, unsanitary cages similar to pig farms (Tuiotrenews, 2012). This is somewhat corroborated by the reported seizure picture, after at least nine seizures (seven of which occurred in the most recent quarter) were reported in Nghe An province, comprising a minimum of 11 whole Tigers (both live and dead). This again gives rise to the likely source being a captive one; moreover, the news reports cite that the seized Tigers were discovered at people's homes.

The second key threat is a perceived domestic market for Tiger bones for medicinal purposes found to be popular amongst an emerging sub-culture of consumers in Viet Nam (Akella and Allan, 2012). Bones are often boiled down until they form a glue-like substance, known as cao. This is then dried, ground into a fine powder and consumed with alcohol. Tigers found in incidents reported over the last two years suggest that Tiger bones are being sourced from Russia for the Vietnamese market (Stoner and Nguyen, in prep). However, at least 50% (12) of seizures reported in the last quarter were reported to be for the production of Tiger bone paste and at least two incidents also involved the presence of Lion bones.
COMMON THEMES AND RECOMMENDATIONS

The seizure analysis identifies critical elements and national-level trade dynamics across some key Tiger range countries, such as demand for skins and taxidermy purposes (trophy) and bones (medicinal purposes). At the same time, this briefing reinforces that the current collective effort at the global level is insufficient to stem the threats posed by trade, especially as seizures very often represent only a proportion of detected illegal trade, meaning actual trade levels are suspected to be much higher. Each one of the problems and issues described highlights an urgent need to remedy the current situation by addressing the enabling conditions that allow Tiger trade to continue at such high levels. To this end, the application of seizure data analysis contextualised along with up-to-date information on trade allows for the development of recommendations designed to resolve this problem.

There are clear indications of a number of common themes that exist across most, if not all, TRCs that need to be tackled strategically to achieve meaningful impact. Every one of these themes has been highlighted in the past as requiring specific intervention by CITES Parties, particularly TRCs. Progress of implementation has not yet achieved results to stem the poaching and trade of Tigers. These themes are described below and key recommendations are proposed as a means of tackling the issues:

1. Improving law enforcement effectiveness

1.1. Intelligence-led law enforcement

The persistence of high number of seizures, involving an equally high number of Tigers in trade across all quarters of the analysis, is perhaps rooted in the lack of intelligence-led law enforcement efforts that can disrupt and dismantle illegal trade networks. In connection with this, there appears to be a lack of meaningful cross-border coordination, as noted by previous reports regarding the implementation of Resolution Conf. 12.5 (Rev. CoP 16) (Nowell and Pervushina, 2014). Therefore, the role of bilateral co-operation, and multilateral law enforcement networks such as the South Asia Wildlife Enforcement Network (SAWEN) and the Association of Southeast Asian Nations Wildlife Enforcement Network (ASEAN-WEN), becomes extremely pertinent.
ASEAN-WEN was first established in 2005, but the law enforcement effectiveness of this network has been limited; although not assessed within this analysis, the future effectiveness of this body is critical. For example, the first national Wildlife Enforcement Network (WEN) in Lao People’s Democratic Republic (PDR) did not take place until 2016. The structure and co-ordination of national-level WENs must first be functional and fit for purpose before it can realistically be a contributing partner in a regional WEN. Similarly, SAWEN was established in 2011, yet in 2016 only four of the eight participating countries have formally ratified the network’s statutes of operation, two of which are TRCs (India and Nepal). Law enforcement efforts, based on intelligence exchanged between TRCs and neighbouring countries, must improve for Tigers to be safe from poaching and illegal trade. This is also particularly relevant by establishing safeguards for cross-border Tiger crime, and therefore the function and efforts by regional platforms such as ASEAN-WEN and SAWEN are important.

TRAFFIC urges TRCs to share information and intelligence on seizures and poaching incidences. Parties could also utilise results from seizure analysis and mapping, such as those done by TRAFFIC, to guide law enforcement interventions, in conjunction with their own intelligence and inter-agency efforts. Notably, Parties should also share information regarding Tiger skin seizures to enable the determination of Tiger provenance. This is closely associated to the need for countries to establish a systematic and standardised database that stores forensics markers and photographic information, at minimum, to aid investigations and law enforcement efforts. This would also aid efforts to better understand criminal networks and the trade patterns they employ, including for example, routes used for Tiger trafficking. Indeed, this has been put forward as a proposal to the CITES CoP 17 by the Indian government (CITES CoP 17 Doc. 60.220), and if passed, will greatly enhance efforts to address Tiger poaching and trade. Collaboration at a regional level is needed, particularly at hotspots and border areas noted above. Collaboration with partners at the international level, including with INTERPOL through the National Central Bureaus (NCBs), in coordinating and supporting investigations could strengthen efforts on this front, particularly in pursuing nominal information on perpetrators. Where information on crime activity involves businesses and / corporations, investigations by TRCs and other CITES Parties should consider potential money-laundering operations, and prosecutorial actions should be pursued under relevant legislation.

1.2 Target online Tiger trade for law enforcement action

Cybercrime involving Tigers is becoming more prevalent, evidenced by seizures being made after sellers attempted to offer items for sale on the internet. The internet and social media has been popular with the sale of smaller items, such as Tiger canines and claws, which can be delivered by post fairly innocuously yet are still highly desired and therefore valuable. In 2014, authorities in Jakarta confiscated a 26.5 by 30-cm piece of Tiger skin, after a trader had purchased it for IDR4 million (USD331) via Facebook and was attempting to re-sell it. More recently, the emergence of whole live mammals, including Tiger cubs has been documented for sale on social media platforms such as Facebook, advertised there as pets. Social media and mobile phone applications, especially those that have restricted-access, facilitate communication between traders in a manner through which detection is highly unlikely (e.g. in April 2016, WhatsApp (owned by Facebook) reported the messaging service would become fully encrypted, providing greater challenges for law enforcement agencies to monitor and detect illegal activity).

TRAFFIC urges commercial trading sites and social media enterprises to work closely with national governments to shut down businesses and individuals found to be facilitating the illegal trade in Tigers (and other endangered species) online. The speed and volume in which cybercriminals operate necessitates collaborative action across agencies and national borders. Viable options for self-policing by internet service providers and social media networks combined with mechanisms for
reporting illegal trade to enhance enforcement efforts should be considered, including the establishment of systems to prohibit or suspend accounts of repeat offenders. Parties are also encouraged to adopt approaches similar to China’s “Zero Tolerance” of online advertising of Tigers which involves joint work between service providers, governments and non-governmental organisations.

TRAFFIC also urges members of the public who suspect that any illegal activity is taking place to report suspected crime directly to local law enforcement agencies. Options for reporting to TRAFFIC can also be made via the Wildlife Witness App, which can be downloaded from the App Store or Google Play for free.

If illegal activity is suspected to take place on Facebook, a direct report to Facebook itself is encouraged. Facebook's Community Standards are a strong affirmation of its policy against any illegal activity, including wildlife crime, and provides a procedure for any direct reports to Facebook (https://www.facebook.com/help/181495968648557?ref=communi%20ty_standards)

1.3 A call for national legislation revisions in TRCs, including reassessment of Category-rating under the CITES National Legislation Project

Law enforcement can only be effective if policy is in place to regulate and control the trade in Tigers. When national legislation is not comprehensive or has significant loopholes, CITES becomes ineffective. Under the CITES National Legislation Project, the CITES Secretariat noted that more than half of the 28 Asian big cat range countries require legislative improvement. Of all TRCs, seven have Category I listing, meaning national legislation is deemed to meet CITES requirements – China, Cambodia, Indonesia, Malaysia, the Russian Federation, Thailand and Viet Nam. However, the legislation of some of these Category 1 TRCs has significant gaps, such as those concerning the regulation of captive facilities and the lack of protection on the use and trade in non-native species within the country, as described in the Indonesian country profile above.

Based on this TRAFFIC proposes a comprehensive re-assessment of the effectiveness of CITES-implementing legislation for Indonesia, Lao PDR, Thailand and Viet Nam as a matter of priority, including a re-examination of categorisation under the CITES National Legislation Project21. These countries have been selected on the basis of gaps in legislative provisions as well as weak provisions, such as low penalties and deterrents to illegal activity. For example, the maximum fine for any wildlife crime (Including those involving Tigers) in Lao PDR’s Wildlife and Aquatic Law 2007 is the equivalent of USD25. This clearly serves no deterrent to prevent crime. Only with the reassessment of the CITES National Legislation Project can Resolution Conf. 8.4 (Rev. CoP15) on National laws for implementation of the Convention be a meaningful measure against progress of countries regarding their implementation of CITES. This assessment should include elements of the law that consider at minimum, the following areas: protection on the hunting, use of and trade of all Tigers (including all sub-species) which effectively affords protection for wild Tigers across all TRCs and allows TRCs to fully and adequately implement CITES; 1. Adequacy of penalties provided by law, 2. Captive breeding regulation (accounting for all Tiger species including at the sub-species level) and 3. Registration of

21 This could also fall within the ambit of the CITES CoP 17 proposal by the Secretariat regarding National laws for implementation of the Convention (CITES CoP17 Doc.22: https://cites.org/sites/default/files/eng/cop/17/WorkingDocs/E-CoP17-22.pdf), which includes the need for countries to assess weaknesses and loopholes within respective legislation and the identification of corrective, time-bound measures.
privately-held stocks and the prevention of leakage into the market, and 4. Control of products and medicines containing or claiming to contain Tigers.

In addition, countries that have captive breeding facilities operations should as a matter of urgency revise their legislation to include non-native Tigers (and other Asian big cats) to stem the issue of laundering and leakage regarding captive-bred Tigers. Viet Nam is also encouraged to expedite the passing and enforcement of its Penal Code so that the judicial system is better equipped to tackle problems regarding illegal Tiger trade. It is also worth considering that the application of laws is as paramount as the legislation itself. The lengthening of custodial sentences and increased penalties will not be enough on its own, extensive and thorough investigations need to happen in order for the legislation to be fully enacted.

1.4 Improve reporting protocols for Tiger crime

While analysis of seizure information provides valuable insights on what is occurring at a global level, efforts to evaluate progress being made by TRCs is hampered by the non-systematic manner in which seizures are reported to CITES, compounded by low rates of reporting overall. Pursuant to CITES CoP Decisions 16.68 to 16.70 on Asian big cats (Felidae spp.), all TRCs were required to “provide information on incidents of poaching of and illegal trade in all Asian big cat species, including their parts and derivatives, which will enable the compilation of a report for the law enforcement community” as well as “gather information on incidents of poaching of and illegal trade in all Asian big cats since the beginning of 2010, undertake an analysis of the information, and prepare a report for the law enforcement community to be circulated in a restricted fashion to relevant enforcement agencies and range States”. This has clearly not yet taken place in full, evidenced by the paucity of feedback from TRCs to the CITES Secretariat based on Notification to the Parties No. 2013/037 regarding Implementation of Resolution 12.5 (Rev. CoP 16).

The notification sent to Parties in 2016 regarding New Annual Illegal Trade Report (No. 2016/007) provides a simple template that enables Parties to report all information regarding illegal trade. This mandatory action by TRCs in a timely manner would aid efforts in better understanding the levels of trade across TRCs, especially when assessed against a standard reporting template. This can also be useful in assessing progress at national, regional and international levels, including the identification of additional requirement to support law enforcement efforts.

1.5 The Impact of Corruption

Building upon this, the UNODC World Wildlife Crime Report (2016) cites the influence of corruption on many facets of international wildlife trade and states ‘corruption is essential to many contraband flows, and seizures are not made where the relevant officials are complicit’. Given the nature of corruption, and the difficulty it presents in illustrating its tangible impact upon illegal trade, corruption should remain on the agenda, along with meaningful solutions to address its ongoing presence.

Transparency International (TI) publishes the Corruption Perceptions Index (CPI) on an annual basis, ranking countries “by their perceived levels of corruption, as determined by expert assessments and opinion surveys” and provides each country with a score, out of the 168 countries ranked, with number one being the most corrupt. Six TRCs fall within the top 20 most corrupt countries in 2015 (Bangladesh, Cambodia, Lao PDR, Myanmar, Nepal and Russia) (Transparency International, 2016). While some improvements have been made since TRCs scores in 2012, most notably in Myanmar where its score has increased from 15 to 22 (meaning the perception of corruption is lessening), other countries have seen a decrease during the same period. Cambodia, China, Bangladesh, and Lao PDR's CPI Index score has decreased in 2015, from their score in 2012 (meaning the perception of corruption is increasing). (Table 4).
Table 4: TRCs Corruption Perception Index’s Scores (2012 and 2015)

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In this regard, it is also encouraging that for the first time, the issue of corruption has been raised at a CITES CoP17 (CITES CoP17 Doc.28). Corruption is inherently difficult to quantify, monitor and prevent; direct links between this seizure analysis and corruption cannot be made. However, any effort to eliminate poaching and Tiger trafficking must consider anti-corruption measures that accompany intelligence-led investigations, prosecution and successful convictions. While many TRCs have laws to address corruption, they are seldom used to tackle wildlife crime. Such efforts must be considered in any law enforcement effort, perhaps in tandem with anti-money laundering investigations where such cases are present, without which organised criminal networks perpetuating this problem will not be eradicated.

2. Resolving loopholes with regulating operations of Tigers held in captive facilities

The rise in unregulated breeding in farms and captive Tiger facilities and its relevance to illegal Tiger trade needs to be more closely monitored and regulated, as called for by CITES CoP Decision 14.69. In an assessment of the Review of Implementation of Resolution Conf. 12.5 (Rev CoP16) (SC65 Doc.38), it was reported that seizures of suspected captive origin Tigers (both live and carcasses) had risen in three Southeast Asian countries – Lao PDR, Thailand and Viet Nam, in parallel with the growing number of captive Tigers in these countries.

Years of requests to Parties regarding the need to regulate and control the leakage of Tigers from captive facilities has not made any meaningful progress on this matter. Reports to the CITES Secretariat with respect to efforts by Parties to regulate and control this problem have also been submitted in a non-standardised manner with varying levels of information that perhaps lacks the level of detail required to understand the full breadth and implications to wild Tigers. The CITES Decision 14.69 on Asian big cats (Felidae spp.) directs “Parties with intensive operations breeding tigers on a commercial scale shall implement measures to restrict the captive population to a level supportive only to conserving wild tigers; tigers should not be bred for trade in their parts and derivatives”. Given the involvement of, and allegations against, captive facilities, the true motives behind such operations and the cloud of uncertainty surrounding the management, regulation and control of such facilities, requires further investigation. This analysis has indeed shown that Tigers from these facilities have leaked into and become part of the illegal trade chain.
Based on this, TRAFFIC recommends that the following be implemented as immediate priorities by the CITES Secretariat, as contained in CITES CoP 17 Doc. 60.1:

- Conduct a review of the number of Tiger breeding facilities maintained by Parties and the number of Tigers kept in these facilities;
- Request Parties with facilities where large numbers of Tigers are bred in captivity to welcome a mission from the Secretariat to visit such facilities with the purpose of gaining a better understanding of the operations and activities undertaken by them.

In addition, and given the involvement of and reported allegations against captive facilities as well as suspicions on the true motives behind such operations, affected countries, particularly TRCs should investigate all breeding centres for involvement in illegal activity, and close such facilities where there have been evidence of such occurrence. Further analysis is also encouraged to better understand the implications of Tiger seizures from captive facilities against its impact on wild Tiger populations.

For Lao PDR, the recommendation from the CITES Secretariat's mission in July 2016 points to some key priorities: “There is an urgent need for the adoption of clear guidelines regarding the operation of Special Free Economic Zones in relation to farming, consumption and trade in CITES-listed species, as well as clear guidance on how to proceed in cases of alleged illicit trafficking occurring in these zones. No standard procedure seems to be in place to act upon such information”. Lao PDR's announcement at the 67th meeting of the CITES Standing Committee (SC67) regarding its intention to discuss ways of phasing out its Tiger farms are relevant in this context, including the development of regulations regarding wildlife trade within its Special Economic Zones.

DNA profiles and other markings (such as photographic evidence) should be taken from all Tigers held in captivity to monitor the numbers of Tigers being bred in captive facilities, and prevent further Tigers being leaked into trade. These samples should be recorded and managed in a centralised database. Samples from seized Tigers can then be taken and cross-referenced with those on the database, to further corroborate or refute claims that Tiger breeding in such facilities is supplying trade. This supports decisions that were made at the 65th and 66th meeting of the CITES Standing Committee (SC65 and SC66).
REFERENCES


TRAFFIC, the wildlife trade monitoring network, is the leading non-governmental organization working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.

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