



ENVIRONMENTAL
INVESTIGATION
AGENCY



ACTION AGAINST EXTINCTION

มูลนิธิเพื่อนสัตว์ป่า
Wildlife Friends Foundation

Wildlife

On The Butcher's Block: The Mekong Tiger Trade Trail

March, 2020





We would like to thank

EIA would like to thank the following for their support for research and analysis on the tiger trade: Sophie Rhodes Legacy, David Shepherd Wildlife Foundation, The Rufford Foundation, Ernest Kleinwort Charitable Trust, and Save Wild Tigers.

Under a partnership project funded by the UK Government through the Illegal Wildlife Trade Challenge Fund, the EIA, Education for Nature Vietnam (ENV) and Wildlife Friends Foundation Thailand (WFFT) have been mapping and documenting tiger farming and trade and briefing law enforcement agencies.

ABOUT EIA

We investigate and campaign against environmental crime and abuse.

Our undercover investigations expose transnational wildlife crime, with a focus on elephants and tigers, and forest crimes such as illegal logging and deforestation for cash crops like palm oil. We work to safeguard global marine ecosystems by addressing the threats posed by plastic pollution, bycatch and commercial exploitation of whales, dolphins and porpoises. Finally, we reduce the impact of climate change by campaigning to eliminate powerful refrigerant greenhouse gases, exposing related illicit trade and improving energy efficiency in the cooling sector.

EIA UK

62-63 Upper Street,
London N1 0NY UK
T: +44 (0) 20 7354 7960
E: ukinfo@eia-international.org
eia-international.org

Environmental Investigation Agency UK

UK Charity Number: 1182208
Company Number: 07752350
Registered in England and Wales

©tigersintheforest.co.uk



Above: As indicators of the health of the ecosystem they live in, the forests that secure water for millions of people and mitigate climate change, tigers are a symbol of good governance. Of cultural importance and a source of tourist income, they are making a comeback in countries that still value them alive and in the wild.

Front cover: butchered tiger offered for sale by Vietnamese traders on social media

CONTENTS

Introduction	4
Fighting extinction	5
Cultivating demand	7
Lacking leadership	9
Thailand	10
Laos	14
Vietnam	18
China	20
Recommendations	24
Appendix I	25
Appendix II	26
Appendix III	26
References	28

Introduction

There is no escaping the fact that countries from which wild tigers have been wiped out or virtually wiped out in recent years – Cambodia, Laos, Vietnam and China – are countries where the tiger has been valued solely for the sum of its body parts.

Yet no-one's survival is dependent on tiger meat as a source of protein or their body parts for medicine, trinkets and ornamentation. There is no world in which lethal consumption of tigers, whether of wild or captive-bred specimens, is essential to meet sustainable development goals or to combat the biodiversity and climate crisis.

There is no business or industry so critical to the Gross Domestic Product (GDP) of any nation which justifies the keeping and breeding of tigers so their skins can be sold as home décor, their bones used to make non-essential tonics and medicine, their teeth and claws for jewellery and their meat served to satisfy ego.

If the world wants to save the wild tiger, we must learn lessons from countries such as India and Nepal where tiger populations are surviving, breeding and showing signs of recovery; where there are strong laws against possession, trade and use, and where tigers are valued more alive and in the wild. There is knowledge, experience and good practice that can be learned from communities, NGOs, academics and officials. There are challenges across South Asia too, no doubt, but with a culture and philosophy of protection as the foundation, there is hope.

At present, despite repeated calls from the international community for 'tiger-farming' countries to end the practice, licensed businesses and criminal enterprises in China, Laos, Vietnam and Thailand continue to churn out tigers. These animals serve no conservation purpose. Whether they die of natural causes or are slaughtered, their skins, bones, teeth and claws are being traded for profit, perpetuating the desirability and acceptability of tiger and other big cat parts and products. This culture of commodification has pervaded legislation and policy, facilitating the expansion of captive tiger facilities, many of which masquerade as "zoos". Trade in parts of captive tigers stimulates demand instead of eliminating it, undermines enforcement efforts and threatens the survival of wild tigers.

The primary consumers are Chinese, so the Government of China has a chance to bring transformative change. With the spotlight on China as host to the forthcoming 15th meeting of the Conference of Parties to the UN Convention on Biological Diversity (CBD), the Government has an opportunity to send a message that a sustainable future for humanity does not include killing the world's most magnificent cat for luxury use, an act that is the very antithesis of "people and nature" or an "ecological civilisation".



©Kings Roman Group brochure

Background

Fighting extinction

There are about 4,000¹ tigers remaining in the wild and poaching is a primary and immediate threat to their survival². Just in the past 10 years, the wild tiger has been wiped out of Cambodia, Laos and Vietnam, while the population has been decimated by poachers in Malaysia and Myanmar.

This follows a lack of investment, implementation and enforcement by the leaders of Tiger Range Countries (TRCs), despite commitments made at the International Tiger Forum, hosted by Russian President Vladimir Putin in 2010. China's wild tiger population remains perilously close to extinction and in Thailand they are clinging on in parts of their range. Even in the strongholds of south Asia, particularly India, home to more than 60 per cent of the world's wild tigers, there is no room for complacency as analysis of poaching and trafficking data reflects a series of peaks and troughs in detected tiger crime since 2000.^{3,4}

Seizure data provides some insights into the nature and dynamics of the trade, indicating that since 2000 a minimum of 2,359⁵ tigers have been seized in trade. Available seizure data represents just a fraction of the contraband on the move, however. An enriched picture of the trade draws on observations of trade in the physical and digital marketplaces, often indicating an absence of enforcement in persistent trade hubs such as Sanjiang area of Vientiane in Laos, Nghe An Province of Vietnam, Mong La in Myanmar, and Shigatse and Lhasa in the Tibet Autonomous Region of China. A wealth of insights into the nature, dynamics and scale of the trade is also obtained from individuals involved in trading wild and captive-sourced tigers and other illegal wildlife.

Above: Tiger bone wine is made by soaking the skeleton in a tank of wine with other ingredients. Often purchased as a prestigious gift or non-financial bribe.

International trade in tiger parts and products has been prohibited under the Convention on International Trade in Endangered Species (CITES) since 1973 when tigers were added to Appendix I (with the exception of the Siberian tiger, added in 1987). Consecutive iterations of a Resolution on Tigers (and other Asian Big Cats) have called upon Parties to voluntarily prohibit internal trade and eliminate demand, culminating in more direct language to close domestic markets at the 18th Conference of the Parties (CoP) to CITES in 2019.

At the 14th CoP In 2007, Parties recognised the threat posed by tiger farming and adopted Decision 14.69, declaring that tigers should not be bred for trade in their parts and derivatives⁶ and that commercial breeding operations should be phased out. The Parties very specifically voted for this Decision to apply to domestic as well as international trade.

Offending Parties, in particular Thailand, Laos, Vietnam and China have failed to implement the 2007 Decision. On the contrary, the business of farming tigers has grown and there are now more than 8,000 captive tigers in 306 facilities⁷ throughout the four countries. Witnessing how operations in these key tiger farming countries have been able to expand, businesses in South Africa and elsewhere have followed suit, breeding tigers and selling their body parts into trade. In the case of South Africa, this trade is often conducted along with African lion bone which is marketed as tiger to increase profits at the end of the trade chain.

At CITES CoP17 in 2016, Parties decided that a series of missions should be conducted to countries with captive Asian big cat facilities of concern and that the CITES Standing Committee would subsequently consider further time-bound, country-specific measures. Despite the urgent situation facing tigers, these missions did not take place, in part due to funding and the CITES Secretariat's workload. At CITES CoP18 in 2019, the decisions were re-adopted.

At the time of writing, the CITES Secretariat intends, subject to funding, to conclude the Missions in time to report to the 73rd meeting of the CITES Standing Committee in October 2020 (SC73).

The various CITES Resolutions and Decisions since 1994 also call for, inter alia, more effective enforcement cooperation⁸. This includes the sharing of images of seized tiger skins with Parties which have tiger stripe pattern profile databases from camera-trap images of wild tigers and/or captive tigers. The purpose is to facilitate law enforcement investigations and the process involves relevant law enforcement agencies taking high resolution photographs of skins from above. There are no significant costs and no need to share sensitive information. India and Nepal have cooperated over the process, but by all accounts there has been poor cooperation from other countries despite a minimum of 104 skins being seized (outside of India and Nepal) since this recommendation was first adopted in 2016.



Left: Trade in dead tiger cubs is thriving as a result of unregulated breeding, poor husbandry and inbreeding, causing high infant mortality. Cubs are put into jars of liquor or wine and mixed with other ingredients such as snakes, scorpions, pangolins, bear paws and ginseng. Popular among Vietnamese consumers.



©EIAimage

Cultivating demand

The trade in tiger parts and derivatives is fuelled by demand among Chinese and Vietnamese consumers, not just within the borders of China and Vietnam but by resident and visiting consumers who buy and use tiger parts and products in neighbouring countries such as Myanmar and Laos. Domestic markets for local as well as Chinese and Vietnamese consumers have also been documented in Thailand.^{9,10}

This demand is stimulated by the availability of parts and derivatives of tigers kept and bred in captivity in South-East Asia, China and even further afield in South Africa^{11,12} Europe¹³ and Mexico^{14,15} despite the 2007 CITES Decision.

The extinction of tigers in parts of South-East Asia and the continued threat to tigers elsewhere in their range is a stark reminder that the supply of tigers from legal and illegal captive facilities has not relieved pressure on the wild tiger population. Trader testimony¹⁶ and consumer attitude surveys¹⁷ confirm some

end-users still prefer wild specimens over 'farmed', particularly in relation to the use of bone for traditional medicines and for making tiger bone wine.

Rather, trade in parts of captive bred tigers, often readily available online, stimulates demand and maintains pressure on wild tigers by perpetuating the desirability and acceptability of using tigers. Convergence of the trade in wild and captive tiger parts has been documented in both the physical and digital marketplaces, with online brokers having multiple supply chains.

Above: Tiger bone is used in traditional Chinese medicine to treat rheumatism and arthritis

Time and again the lack of transparency, effective regulation and monitoring of these facilities, weak enforcement and corruption have enabled the businesses and individuals involved to operate with impunity, leaking tigers and their parts into domestic and international trade. The government responses to the threat in all four countries have been woefully inadequate; they have wilfully turned a blind eye to a problem their own policies have created, with inadequate registration, inspection and monitoring processes.

Demand for tiger is now so out of control, widespread and with diverse parts and derivatives in demand for multiple purposes, that other big cats are supplementing the trade. African lion bone, teeth and claws are entering the market being sold as tiger, likewise jaguar teeth and claws. This is not because tiger parts are hard to get hold of, as evidenced by the availability of tiger parts on social media, but because demand is so high and there is profit to be made from marketing any big cat bones, teeth and claws to end consumers as tiger.^{18,19,20}

Asia's other big cats end up in trade for the same purposes as tigers – with leopard, clouded leopard and snow leopard skins sold as cheaper alternatives for home décor, while bones of all three species are used for “leopard” bone wine and pills. There are more than 24 companies in China apparently licensed²¹ to produce leopard products for legal domestic sale despite a lack of transparency over the source or even species of bone used and in the face of massive declines in populations due to poaching across Asia²².

The impact of continued demand, the failure to stop tiger farming and the increase in recorded incidents of trade in captive-bred tiger parts are among issues highlighted in two detailed and substantive reviews prepared for the CITES Parties by a trade expert in the IUCN Cat Specialist Group in 2014²³ and 2019.²⁴ The reviews documented both shortcomings and good practice across Asian big cat range and consumer states in relation to legislation, enforcement and demand reduction.



Left: Unworked tiger teeth for sale online from Vietnamese trader



Below left: Teeth and claws are fashioned into expensive jewellery worn as a status symbol

Lacking leadership

Tigers and Asia's other big cats have not benefited from the type of high-level commitments and enforcement actions that the illegal wildlife trade crisis facing Africa's elephant, rhino and pangolin populations has prompted.

The global awakening to the renewed African ivory crisis was marked by domestic bans, high-level diplomacy and an increase in financial and technical investment from donors.

The same has not happened for Asia's tigers and other big cats. The seizure of large numbers of tigers in a single consignment is rare. Along some trafficking routes, a butchered tiger will be broken down into separate consignments with teeth and claws dispatched as immediate low-risk/high-profit sales to recover trader costs. Skins and bones may be moved separately and, in some routes, skeletons will be quartered to minimise chances of detection. Seizures of tigers in the single figures doesn't command the same global reaction, despite the fact they are closer to extinction.

The keeping, breeding and slaughter of tigers for their body parts provokes outrage from an ethical and welfare perspective, but the lack of political will to implement international commitments to end tiger farming because of the conservation threat it poses has been allowed to drag on. Despite repeated calls from tiger range states fighting to protect their wild tigers, tiger farming countries continue regardless.

At a January 2019 meeting of tiger range country governments, participants agreed "TRCs should prohibit all trade, including domestic trade, in tiger parts including from captive-bred sources and amend legislation to prohibit captive breeding of tigers for commercial purpose"²⁵.

In the primary tiger consumer country of China, the silence from the highest levels of Government on the matter is deafening in sharp contrast to the leadership on ivory trade. The Government has an opportunity to take China from being a conservation pariah to a conservation champion. With 2022, the next Chinese year of the tiger, looming and the prospects of a second International Tiger Summit being hosted by Putin²⁶, there are milestones along the way that President Xi Jinping could use to signal real change in China. This includes China's hosting this winter of the 15th Conference of the Parties to the Convention on Biological Diversity (CBD).

By using the CBD as a platform for transformative change, Chinese leadership must declare an end to the use of the parts and derivatives of tigers and other big cats, including from captive-bred animals, and initiate actions to implement the recommendations below.

Where China leads, there is a chance that Thailand, Laos and Vietnam will follow.

Top right: tiger skins are sold as luxury home decor

Middle right: Offcuts of skins from tigers butchered for their bones are made into wallets and sold via social media

Bottom right: Tiger tail bones are being sold as good luck charms.





Thailand

IS IT LEGAL?

In Thailand it would be illegal to keep, breed and transport tigers without a license. It appears easy to get a license though regulations are currently under review. It is legal to keep parts of deceased captive tigers with a license. It is illegal to trade parts and products of tigers, wild or captive, but there is no provision to stop trade in parts and products that are labelled as or marketed as containing tiger.

Thailand's wild tiger population is estimated to be between 150-200 tigers, more or less the same since 2010. The captive tiger population has increased over the same period with the Government reporting 786 tigers in 22 facilities in 2010²⁷ and more than 952 tigers in 24 facilities in 2011²⁸. In 2013, the Government rather unhelpfully reported a combined figure of 1,174 captive tigers and leopards in 27 public zoos.

In 2016, the Thai Government said there were an estimated 1,450-2,500 tigers in 44 facilities across the country.²⁹ In 2018, a report prepared for the CITES Secretariat estimated 1,595 captive tigers in 46 facilities in Thailand,³⁰ while in an intervention at CITES CoP18 in 2019, the Thai delegation said there were 31 "zoos" with tigers.

Independent research by WFFT in 2019 has identified 12 Government-owned zoological, rescue and breeding facilities, 51 privately owned facilities licensed as "zoos" and several individuals licensed to privately possess tigers. In total, these account for an estimated minimum of 1,962 tigers.

Thailand's captive tiger scene is characterised by commercial facilities serving no conservation purpose, in many instances providing visitors access for tiger selfies and interactions. Privately owned facilities vary in the number of tigers kept from a few to hundreds, some owners are licensed to keep tigers but not to breed them under an ownership permit, "sor por" system, but inspection and monitoring systems are inadequate to ensure transparency and enforcement. WFFT has evidence of the "sor por" system being abused with licenses issued as long ago as 2003 still being used for tigers today; suggesting an improbably long life and arousing suspicion that they are engaged in breeding tigers without a license.

Some facilities with a "zoo" license are, suspiciously, in a perpetual state of construction and not open to the public, but still allowed to keep and breed tigers. Some are open to the public but located in remote areas far from the tourist trail, often conveniently close to borders, and charging such small entry fees that it is clear their income is being generated through other means.

In a recorded interview in 2001, the well-connected owner of a captive tiger facility in Ubon Ratchatani estimated that breeders across the country were selling at least 100 tiger cubs a year to China, trafficking them via fruit boats up the Mekong river. An assessment of available records suggests there have been seizures of captive-bred tigers and their parts in Thailand dating back to 2003.

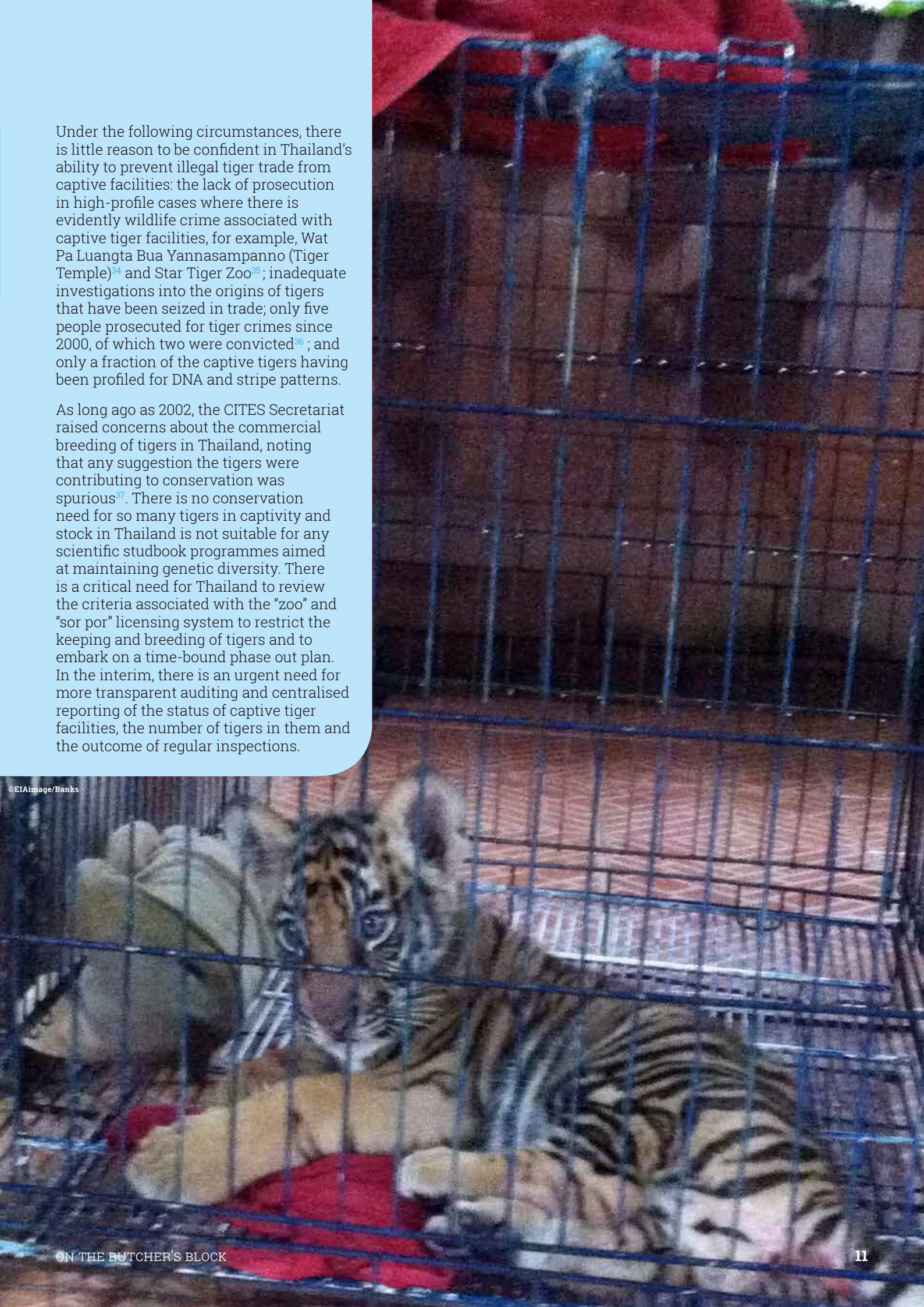
While tigers and tiger parts from captive sources in Thailand continue to enter illegal trade (spiking in 2016 when the infamous Tiger Temple was raided)³¹, wild tigers have also continued to be poached, including by criminal gangs commissioned by Vietnamese traders³². This is despite Vietnamese buyers having easy access to captive-sourced tigers and African lion bone marketed as tiger. Trade in wild and captive-bred tiger parts is inextricably linked, being trafficked out of Thailand by the same criminals and via the same routes as illustrated with the Leuthai network³³.

Boatmen plying the river from Rattanawapi reported in 2019 that wildlife, including tigers, continue to be trafficked via the Mekong, across to Laos and into both Vietnamese and Chinese trade networks from there.

Vietnamese wildlife traders operating from Laos in 2019 also confirm that trade in live and dead tiger cubs from Thailand continues. With a decline in tiger seizures in Thailand since 2016, seizures alone are clearly not a good indicator of the status of trade.

Under the following circumstances, there is little reason to be confident in Thailand's ability to prevent illegal tiger trade from captive facilities: the lack of prosecution in high-profile cases where there is evidently wildlife crime associated with captive tiger facilities, for example, Wat Pa Luangta Bua Yannasampanno (Tiger Temple)³⁴ and Star Tiger Zoo³⁵; inadequate investigations into the origins of tigers that have been seized in trade; only five people prosecuted for tiger crimes since 2000, of which two were convicted³⁶; and only a fraction of the captive tigers having been profiled for DNA and stripe patterns.

As long ago as 2002, the CITES Secretariat raised concerns about the commercial breeding of tigers in Thailand, noting that any suggestion the tigers were contributing to conservation was spurious³⁷. There is no conservation need for so many tigers in captivity and stock in Thailand is not suitable for any scientific studbook programmes aimed at maintaining genetic diversity. There is a critical need for Thailand to review the criteria associated with the "zoo" and "sor por" licensing system to restrict the keeping and breeding of tigers and to embark on a time-bound phase out plan. In the interim, there is an urgent need for more transparent auditing and centralised reporting of the status of captive tiger facilities, the number of tigers in them and the outcome of regular inspections.



©EIAimage/Banks

In 2018, online adverts from a Vietnamese tour operator alerted EIA investigators to the promotion of “Thailand tiger bone glue” (Cao hổ cốt Thái Lan), to Vietnamese tourists.

One advert advised potential tourists and buyers that they can “buy the product while travelling to Thailand or can order a service from Vinthai company to help buy and transport to Vietnam”. Investigators followed the lead and ended up at a retail and restaurant complex on the outskirts of Bangkok.

Visitors were given a presentation in Vietnamese by marketing staff who repeatedly insisted that the product was made from the bones of farmed tigers in Thailand, promoting it as a must-have Thai souvenir.

The authorities in Thailand were informed of the aggressive marketing of the product as containing tiger. CITES Parties are urged to treat products labelled as containing, claiming to contain or are marketed as containing tiger as “readily recognisable derivatives”. Thailand’s legislation does not enable this and reform is required.

According to the packaging seen in the Vinthai adverts, the product is manufactured by a Thai company called Ouay Un. In 2001, EIA documented the open sale of Ouay Un’s tiger bone glue products in Bangkok’s Chinatown, but in different packaging³⁸. The factory manager of Ouay Un at that time told EIA that it used the bones of tigers sourced in Thailand to make their “yao gao”, tiger bone glue. This was reported to authorities at the time.

In 2002, it was reported³⁹ that the company confirmed it had been legally allowed to manufacture tiger bone products under the Thai Food and Drug Administration and had in fact sourced tiger bone from Myanmar, which would have been in contravention of CITES. It went on to say that it would recall all tiger bone products (it was making nine different products at the time) and would replace tiger bone with a herbal alternative in future production.



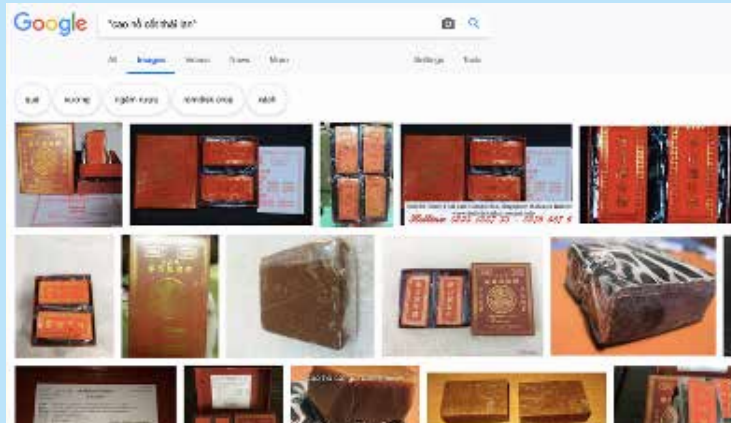
Website vinthai.net advertises “Thailand tiger bone glue”

“Tiger bone glue” on open sale in Thailand





Tourism website touting the availability of tiger bone glue



Google search for Cao hổ cốt Thái Lan generated over 600 results



Below and top right: Facilities that keep tigers in unnatural conditions and large groups, or allow visitors to cuddle cubs and have selfies with tigers, have nothing to do with conservation. They are often masking a more sinister business



©EIAImage/Richardson

Laos

IS IT LEGAL?

Laos' wildlife law has been subject to review and amendment since 2016 and it is unclear what amendments are being made. Under the 2007 law, it has been legal to keep, breed, transport and trade dead tigers and tiger parts for export with a permit (though export was in contravention of the CITES Resolution and Decision on tigers). A Prime Ministerial decree in 2018 has put some restrictions in place regarding trade and new captive tiger facilities and consequently there is a new wildlife farming regulation, but there are still loopholes.

In 2019, scientists reported that the wild tiger was extinct in Laos; meanwhile, there are an estimated 352-399 captive tigers in six facilities across the country.

The Laos Government has been licensing the commercial breeding of tigers for trade in their body parts since 2002, with the establishment of two facilities in Bolikhamxay and Khammouane Provinces. Laos joined CITES in 2004 but the farms were allowed to export their tiger parts to China and Vietnam up until 2015^{40,41} in contravention of the CITES Resolution and Decision. Buyers source dead tigers and live cubs direct from the farms, paying different rates depending on whether or not safe transportation is included.

In 2013, the Hong Kong-registered Kings Romans Group opened a tiger "zoo" at the Golden Triangle Special Economic Zone (GTSEZ) in Bokeo Province. Despite initial exposés of the open trade in tiger parts and products in 2015⁴², the availability of tiger bone wine, teeth, bone bracelets and tiger meat has subsequently been recorded.^{43,44}

By 2016, the Government estimated there were 700 tigers in captivity⁴⁵ and at CITES CoP17 announced its intention to phase out tiger farming. Funding was obtained to conduct a full tiger farm audit at the end of 2016 but is still to be completed and shared with experts to help develop a time-bound phase-out plan. In the meantime, three more captive tiger facilities have been established.^{46,47}

All of the facilities are owned by or affiliated to businesses or individuals that have been implicated in criminal activity, including illegal trade in tigers⁴⁸ and other wildlife. In January 2020, Nguyen Huu Hue, one of the Vietnamese owners of the Say Nam Theun tiger farm in Bolikhamxay, was sentenced to six years in prison in Vietnam for trafficking seven dead tiger cubs seized in Hanoi in

July 2019⁴⁹. Vietnamese police sought the cooperation of Laos authorities as part of their investigation but were unsuccessful.

In January 2018, the US Department of the Treasury sanctioned the Zhao Wei transnational criminal organisation, responsible for the Kings Romans Casino and growing tiger facility in Laos' GTSEZ, for involvement in drug trafficking, human trafficking, money laundering, bribery and wildlife trafficking⁵⁰. The company continues to operate today and the tiger breeding operation has expanded.

In 2017, the company behind two tiger facilities was implicated in a case of illegal ivory trade and money laundering out of Uganda.⁵¹ Between 2016 and 2017, more than 300 tigers disappeared from the Vinasakhone tiger farm⁵²; 100 tigers were believed to have been sent to the GTSEZ, and that should prompt an investigation into the whereabouts of all those tigers now.⁵³ Other sources suggest some of the tigers may have been killed and their body parts entered trade. No formal investigation has been conducted and no-one has ever been held accountable.

Instead of closing down the facilities and penalising the individuals and businesses involved, the Government of Laos issued an order in 2018 pre-empting the outcome of the tiger farm audit, allowing the conversion of existing tiger farms to safaris and zoos for "conservation, tourism and scientific purposes". As predicted, this has just provided a smokescreen for continued unregulated breeding and trade, as exposed by the BBC⁵⁴ and illustrated during Hue's recent conviction in Vietnam. The Say Nam Theun farm was breeding, killing and selling tigers prior to and during the official tiger farm audit⁵⁵.

There are numerous Vietnamese and Chinese wildlife traders based in Laos, catering to demand for tiger parts to be consumed within Laos (among resident and visiting Chinese and Vietnamese

Far right: The number of tigers at the GTSEZ has increased since 2016 despite Government commitment to phase out commercial breeding facilities.

consumers) and for onward distribution. Since 2012, almost one-third of the tigers seized in Vietnam are believed to have been sourced from Laos.

Some Chinese traders have retail outlets selling tiger and other wildlife parts and products in the capital Vientiane, often just under the counter, others run tours restricted to Chinese tourists only, especially in Luang Prabang. EIA provided a briefing to Laos authorities regarding one such operation but no action appears to have been taken.

In a recent BBC documentary, investigators purchase tiger bone glue from the sister of suspected Vietnamese wildlife criminal “Boonchai” Bach, at her restaurant near the Laos-Vietnam border. Boonchai was arrested in Thailand in January 2018 in association with rhino horn trade. His case was dismissed when a key witness reportedly “flipped”.⁵⁶

Chinese social media platform WeChat is used by traders to broker online deals and traders have multiple supply chains from Thailand and Laos catering to multiple dealers from Vietnam and China. Tiger skin, raw and worked tiger bone, teeth and claws, tiger bone glue, tiger bone wine, ivory, elephant skin powder, raw rhino horn, rhino horn medicine, bear bile medicine, pangolin scales and other wildlife are offered by these traders.

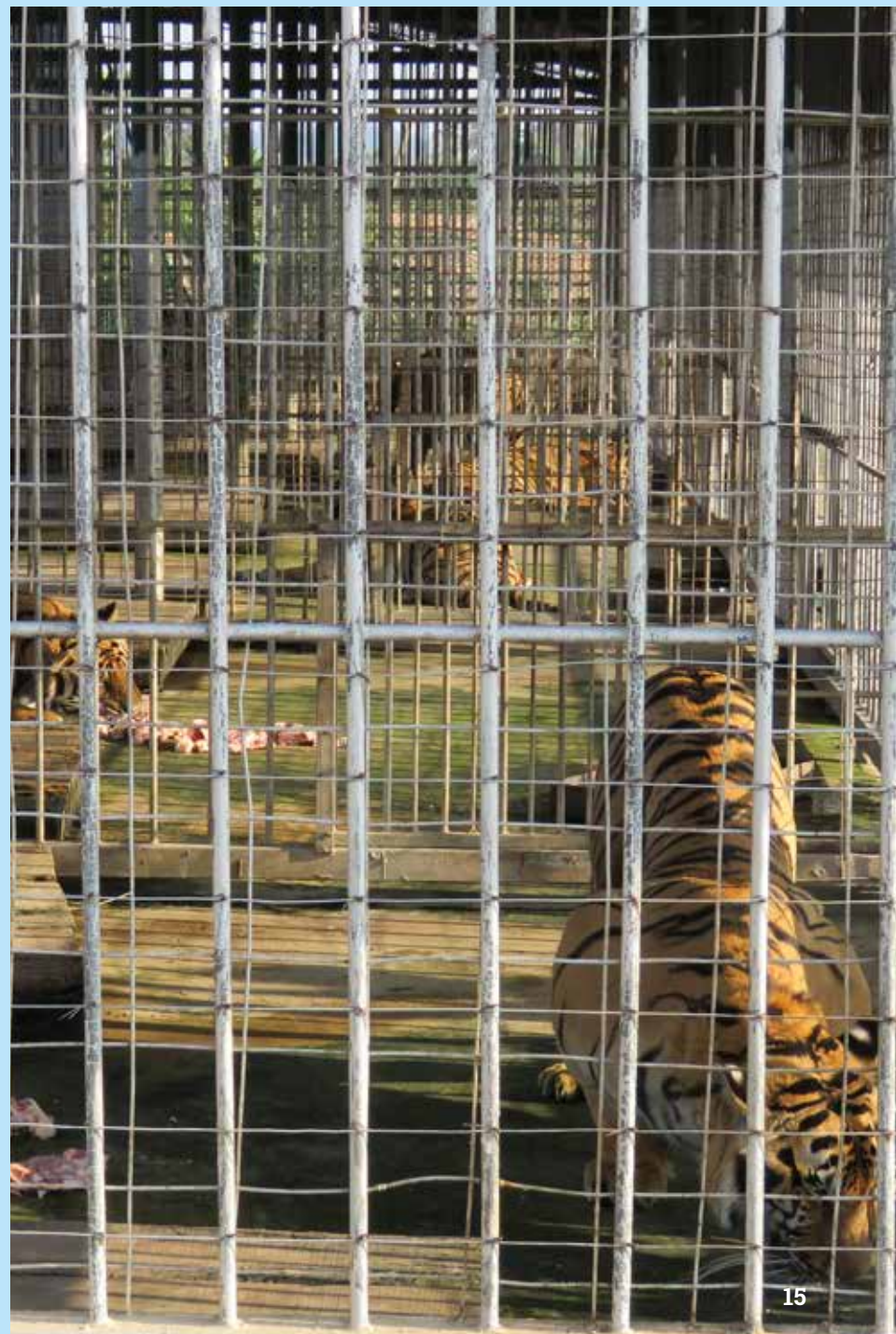
Millions of dollars of aid has gone towards improving Laos’ wildlife and forest law enforcement capacity since 2014.⁵⁷ While there have been seizures of illegal wildlife, none of the persistent traders who are part of transnational criminal networks have been impacted.

Laos is still subject to compliance proceedings under CITES and by October 2020 has to prove implementation of a series of recommendations relating to legislation, effective enforcement and ending trade in captive-bred tigers,⁵⁸ or face CITES trade suspensions. This process has, however, been painfully slow since it started in 2016 and, in the interim, tiger farmers and other organised wildlife crime groups have continued to operate as if untouchable.⁵⁹

As a member of the Financial Action Task Force (FATF), Laos is required to conduct financial investigations associated with predicate offences, including wildlife crime. The financial intelligence unit

was set up in 2007⁶⁰ and at the time of the first assessment of implementation in 2011 there had been no confirmed case of money laundering investigation, prosecution or conviction⁶¹. The next assessment will be conducted in 2020⁶².

Laos is also listed as a “country of concern” under the US Eliminate, Neutralize, and Disrupt Wildlife Trafficking Act of 2016⁶³. All of these initiatives put Laos under increasing scrutiny but also provide for more targeted support to close enforcement and policy gaps that facilitate transnational wildlife crime. The question is whether there is political will at the highest levels of government to take the action necessary.



In 2016, EIA provided Laos authorities with information on a Chinese-owned business confirmed to be using genuine tiger bone to make and sell wine in the capital Vientiane. We were advised in return that the information would contribute to an imminent law enforcement operation and were asked not to publish the information and expose the company in question. Four years on, however, and no action has been taken against the business. We have continued to document ongoing illegal trade at both the retail outlet and on its WeChat account and report it in the interests of facilitating law enforcement.

In the retail outlet, tiger skulls, tiger bone wine, ivory and pangolin scales were openly for sale. The manager – also apparently the principal tiger bone wine brewer – claimed the bones had been trafficked from south Asia and was at great pains to describe how the use of wild tiger and careful methodology made their tiger bone wine a superior product. It was not possible to verify the origin of the bone being sold.

The WeChat account associated with the business documented the process of making tiger bone wine. In 2017 and 2018 they were still selling tiger and other illegal wildlife and was still prolific at the end of 2019.

Tiger bone and tiger bone wine being sold by this company are pictured right.



Tiger bone wine for sale in the Vientiane shop

Tiger bone wine for sale on the company's social media account



户再大，不向我拿货，也等于零，客户再小，经常
我拿货，就是我的VIP。市场没有统一价，您总能
别比我们便宜的，也能找到比我们贵的，市场竞争
热化的大环境下，各行各业都不存在暴利，认准一
靠谱的合作伙伴就可以了。不要比价比一圈，谁都
自信。最后，您永远成为不了谁家的VIP。



©EIAimage

Above and below: tiger bones and skull for sale at retail premises, 2016



©EIAimage



Image of tiger bone wine manufacturing process, shared on social media by company

Tiger bone wine for sale in the Vientiane shop



©EIAimage



Vietnam

IS IT LEGAL?

In Vietnam it is illegal to keep, breed and transport tigers without a license. It is illegal to possess, trade or advertise tigers or products made from tigers.

Wild tigers are believed to be extinct in Vietnam, a tragic decline that has been on the cards since 2010 – even as wildlife criminals in Vietnam were trafficking tiger parts sourced from the Laos farms⁶⁴ further reinforcing the fact that trade in captive-bred tiger parts has not relieved pressure on the wild population.

Also since 2010, the number of registered facilities with captive tigers has steadily increased from seven in 2010 to 21 in 2019, as has the number of captive tigers in the same period, from 98 to an estimated 303. As with Thailand and Laos, these are not specimens that can be reintroduced to the wild and are not part of recognised scientific captive-breeding programmes.

While trade in captive-bred tiger parts is illegal in Vietnam, wildlife criminals have been able to abuse the system and keep breeding tigers. Nguyen Mau Chien had illegally sourced tigers for his facility in 2006, was fined in 2007 but carried on and, in 2012, was granted a permit to keep and breed tigers.⁶⁵ He has since been convicted for his role in tiger, rhino and ivory trade⁶⁶ but, despite being a repeat offender and part of a transnational criminal network, he was only sentenced to 13 months in prison and a further three months on appeal.⁶⁷ Similarly, the wife of twice-convicted tiger trader Pham Van Tuan was given a license in 2016 to import captive-bred tigers from the Czech Republic for a so-called “zoo”.

Below: having a tiger skin rug is considered to be a status symbol

Below right: dead farmed tigers are frozen for transport by road

Far right: framegrabs from videos that traders post on social media to authenticate their goods



The figures for captive tigers in Vietnam do not include the potentially hundreds of tigers kept in squalid backyards and basements in Dien Chau District of Nghe An Province, completely illegal operations operating with impunity since at least 2011.⁶⁸ According to Nghe An tiger keepers and traders encountered by ENV and EIA, cubs from Thailand and Laos may be trafficked into Ha Tinh Province and sold on to Nghe An where they are raised to maturity. They are often pumped full of fluid to increase their weight before being slaughtered on commission by Vietnamese and Chinese buyers.

The means by which tiger parts and products enter the market from Nghe An appears to be diverse and diffuse. Trusted Vietnamese brokers may pull together a group of buyers who spend a weekend on-site, watching the tiger being killed and butchered and waiting while the bones are boiled down with other ingredients into tiger bone glue, which may be for personal use, to give as a gift or to sell on within their own social networks.

Other Vietnamese and Chinese buyers tap into WeChat and Facebook networks and are reeled in with videos and stills of live tigers, scenes of electrocution, butchery and processing into parts and derivatives. Cleaned and processed parts and tiger bone glue are purchased via WeChat pay or bank transfer. Packages for Chinese buyers are boxed and carried to the border, where they are often smuggled across on foot at informal crossings or taken across formal borders when corrupt officials are on duty. Once inside China, they're taken to cities such as Nanning and couriered out to the buyer.

Vietnamese tiger traders are also involved in the lion bone trade. African lions are on Appendix II of CITES, allowing a regulated trade. South Africa has a quota for exporting captive-bred lion bone which has been legally exported to companies in Thailand and Laos (as well as directly into Vietnam). Traders reveal it is then re-exported, without CITES paperwork, from Thailand and Laos into Vietnam and China where it is marketed as tiger at a higher price.

Arrests in 2018⁶⁹ and 2019⁷⁰ confirm that Vietnamese networks with tentacles in South Africa are also involved in sourcing captive-bred tiger parts from a growing number of facilities there⁷¹ which have mushroomed amidst a lack of regulation over the keeping, breeding and trading of a non-native species.

There is clearly more that authorities in Vietnam can do to investigate the footprint of Vietnamese tiger traders in the region and further afield, including following the money associated with those in the trade that they have already arrested and convicted. Upcoming CITES missions to Vietnam presents an opportunity to address the lack of enforcement in Nghe An Province and the need to further restrict who can keep and breed tigers.



Captive tigers are electrocuted ...



... skinned and butchered ...



... their bones boiled for three days ...



... to make tiger bone glue



China

IS IT LEGAL?

In China it is legal to keep, breed, transport and sell captive tigers and tiger parts with a license. There is a grey area for captive tiger bone with some government statements suggesting it must be securely stored and available for inspection and not destroyed, but a 2005 Notification has allowed limited use under a pilot project. Revisions to the law are currently under consideration.

Far right: captive tigers at one of China's largest speed-breeding farms

China's wild tiger population remains perilously close to extinction at fewer than 50 tigers, following near extinction in the 1980s. The key factors contributing to the decline of wild tigers in China include the declaration (under Chairman Mao) of the tiger as an agricultural pest with a bounty on its head and the killing of tigers for their bones to supply a legal domestic trade in raw bone and mass produced tiger bone pills, wine and plasters.

As China's wild tiger population dwindled, the Government's response was to finance the first tiger farm in 1986, primarily to supply bones for medicinal use. There are now more than 6,000 tigers in captivity in over 200 facilities. The scale of demand and an apparent preference for wild tiger meant there has been enormous pressure on populations in neighbouring countries, with poachers channelling illegally sourced wild tiger into China.

In 1993, under the threat of bilateral trade sanctions from the USA and concern from CITES Parties, China's State Council brought in a ban on domestic trade in tiger bone and rhino horn, but just for medicinal use.⁷² The "ban" initially led to a decline in the availability of the mass-produced packaged patented medicines, but the lack of effective enforcement, cooperation and demand-reduction and renewed demand in China for other tiger parts and products meant that international illegal trade continued.

The increasing number of businesses that had invested in tiger farming and their allies in the traditional Chinese medicine industry and Government have consistently agitated for the repeal of the 1993 "ban"⁷³. There has been a gradual erosion of commitment to eliminating demand, reflected in regulations adopted since 2005 allowing domestic trade in the parts and products of captive-bred tigers. This includes the licensed domestic trade in captive-bred tiger skins prepared as rugs and taxidermy specimens, sourced

from facilities calling themselves "zoos" and "wild animal parks"⁷⁴. Also in 2005, the Government issued a notification announcing "a pilot project to enable the use of captive-bred tiger bone in medicine".⁷⁵

According to manufacturers and distributors of tiger bone wine, the license was reportedly given to only a handful of captive tiger breeding operations.⁷⁶ The Sanhong Biotechnology Company, recently featured in a BBC documentary with a storeroom full of boxes of "real tiger wine", claimed in 2013 that it was one of the companies allowed to use captive-bred tiger bone. When EIA met with the company, it described in detail its process for making tiger bone wine and insisted it had all the necessary permits which was elaborated on in its business feasibility report.^{77,78} The business has not been shut down by authorities. On the contrary, it has expanded and in 2017 had 62 captive tigers and still had plans to raise 500 tigers, hinting at continued Government support.⁷⁹

Mixed messages have continued. In October 2018, China's State Council issued a new order, opening up the use of captive-bred tiger bone and captive-bred rhino horn for medicinal purposes. The 2018 order explicitly repeals the 1993 "ban". Internal and international backlash led to a delay in the development of implementing regulations, but the 1993 State Council order has still not been reinstated, nor has an alternative been adopted.⁸⁰

There is an urgent need for a clear and unambiguous message from the highest levels of Government, a commitment to end all use of tiger parts and derivatives, whatever their source, and for that to be enshrined in law.

In the wake of the 2020 coronavirus outbreak, the Government of China announced a ban on trade of wildlife for consumption as food, which is an encouraging step. It doesn't go far enough,

however, and EIA supports calls from inside China and globally to see a ban extended to all trade, including a ban on the use of tiger and other wildlife in the production of traditional medicines⁸¹ and decorative items, as well as an end to tiger farming.

News around the announcement on the 24 February 2020 suggests there is still scope for further revisions to China's Wildlife Protection Law and other regulations. Our recommendations propose amendments that would lead to an end to the use of captive-bred tigers.⁸²



In addition to skin, bone, teeth and claws, there is a demand for tiger meat from captive-bred tigers among Chinese consumers. In 2007, UK journalists documented the sale of tiger meat in the restaurant of one of the largest tiger farms in China, using forensic DNA analysis to confirm it was tiger.⁸³

In 2012, a taxidermist licensed to process and sell the skins of captive-bred tigers from China's zoos and wild animal parks showed EIA the carcass of a tiger in the freezer, claiming he sometimes receives the entire carcass and then sells the meat and bones on to known contacts.⁸⁴

In 2014, a Chinese businessman was jailed for 13 years for commissioning the electrocution and butchering of tigers to serve their blood and meat at banquets. Police suspected that the gang had killed 10 tigers in recent years.⁸⁵ Given the circumstances and the rarity of wild tigers in China, it is likely these were captive-bred tigers.

Also in 2014, EIA documented sauté tiger meat on the menu at the GTSEZ in Laos and one of the restaurants in the Chinatown area of the GTSEZ had pieces of what it claimed was tiger meat in the freezer.⁸⁶

In September 2019, a tiger head and tiger meat was seized alongside bear paws, porcupines, giant salamander and other wildlife from a freezer at a Zhejiang hotel. The hotel owner had a sideline in selling exotic meats and had sourced the tiger from contacts in zoos; the tiger in question had reportedly died of pneumonia in 2016.⁸⁷



©EIAimage

Tiger meat is consumed as an exotic delicacy

Remains of a tiger carcass in a freezer at a licensed taxidermist in China. They get government permission to buy, process and sell the skin of captive bred tigers and are not supposed to receive the entire carcass but monitoring is weak. The meat and bones are sold illegally.



©EIAimage



©EIAimage

Sanhong's "Real Tiger Wine", made with captive tiger bones, which they claim they have permission to make, China



©EIAimage



©EIAimage

China allows the skins of captive bred tigers to be turned into rugs and taxidermy items. The taxidermist offering this skin to investigators explained how the licensing system could be used to launder illegally sourced skins

There is an obsession with breeding white tigers in captivity accompanied by spurious claims about it being in the interest of the "species" conservation. True white tigers are Bengal tigers (*Panthera tigris*), bred to display a recessive gene. There is no conservation value in breeding them, nor is there any conservation value in breeding them with Siberian tigers.

©EIAimage



Recommendations

While the legal, policy and enforcement situation is different in each of the offending tiger “farming” countries, the following recommendations should be adhered to.

Legislation, regulations and policy should be strengthened and financed to:

- End the domestic trade and use of tiger and other big cat parts and derivatives, including from captive specimens and non-native species
- Treat processed derivatives that are labelled as, marketed as or claim to contain tiger or other Appendix I big cats as “readily recognisable derivatives” to enable confiscation, arrest and prosecution
- Prohibit further growth of commercial captive tiger facilities and close those found to be involved in tiger trade
- Enable the phase-out of existing commercial captive tiger facilities and, in the interim, ensure transparent, rigorous monitoring and inspection of captive tiger facilities, including the centralisation of databases of the captive tiger population, their stripe pattern and individual DNA profiles
- Facilitate action against trade in tiger parts and derivatives online and via social media platforms
- Destroy stocks of tiger and other big cat parts and derivatives held by tiger farming and processing businesses and in Government stockpiles that are not required for forensic and prosecution purposes

Governments and donors should ensure adequate funds to support:

- Investigation and enforcement that results in arrests, prosecution, conviction and seizure of assets of individuals and businesses involved in illegal tiger trade
- The development of forensic tools to profile individual tigers in captivity and determine lineage when tiger parts and cubs are seized to facilitate international enforcement efforts
- Targeted consumer behaviour change programmes to reduce demand for parts and products of tigers and other big cats

Parties to CITES are urged to:

- Support the CITES missions to be conducted under Dec 18.108 with technical expertise and financial assistance
- Propose further time-bound, country-specific actions to ensure implementation of CITES Resolutions and Decisions, with the objective of ending tiger farming, trade and demand
- Evaluate progress against a more robust set of indicators and be prepared to call for CITES trade suspensions

Appendix I

Wild tiger population estimates

Having moved on from using pugmark methods to estimate the number of individual tigers, some tiger range countries have developed more robust survey methods involving camera traps, radio-collaring, presence/absence indicators and prey population estimates.

Nowhere is it an exact science and there are still significant disagreements and challenges over scientific approaches and analysis. Increases in numbers of tigers may in some places be in part due to an increase in the number of tigers counted as opposed to an increase in the number of tigers. There are caveats attached to global population estimates and in national estimates.

There is no disputing the recovery in some instances with presence of breeding females in locations they have not been recorded in before or in recent times. Sadly, there is also little dispute over the absence of tigers or any sign of tigers in now empty forests.

Global Tiger Population Estimates 1998 – to date

1998: 5,000-7,000⁸⁸

2009: 3,200 (IUCN)⁸⁹

2010: 2,154-3,948 (IUCN)⁹⁰

2010: 3,643 (Tiger Range Country Governments)⁹¹

2011: 4,240 (Tiger Range Country Governments)⁹²

2014: 3,159 (IUCN)⁹³

2016: 3,900 (WWF)⁹⁴

2020: About 4,000 (In absence of a more up to date IUCN Assessment, based on tiger range country government estimates, recent scientific peer-reviewed reports and allowing for error)

Tiger Range Country (TRC)	2010 (Based on TRC government estimates in National Tiger Recovery Priorities submitted to the Global Tiger Recovery Program / Global Tiger Initiative) ⁹⁵	2015 (IUCN assessment in 2014) ⁹⁶	2020 (Based on TRC presentations to the Global Tiger Forum / Global Tiger Initiative 3rd Stocktaking Conference unless indicated otherwise) ⁹⁷
Bangladesh	440	106	106 – 121 ⁹⁸
Bhutan	75 (67-81)	103	103
Cambodia	10-30	Functionally Extinct	Extinct
China	45 (40-50)	7	<50
India	1,411 (1,165-1,657)	2,226 ⁹⁹	2,461-2,967 ¹⁰⁰
Indonesia	325 (250-400)	371	371
Laos	17 (9-23)	Functionally Extinct	Extinct ¹⁰¹
Malaysia	500	250	<200
Myanmar	85	Unknown	22-30
Nepal	155 (124-229)	198	235
Russia	360 (330-390)	433	490
Thailand	200	189	150-200
Vietnam	Unknown, low numbers, estimated 10s <5 (IUCN)	Functionally Extinct	Extinct ¹⁰²

Appendix II

The increase in the number of tigers in captivity (private and government facilities)

	2014		2016		2017		2019	
	No. captive tiger facilities	No. captive tigers	No. captive tiger facilities	No. captive tigers	No. captive tiger facilities	No. captive tigers	No. captive tiger facilities	No. captive tigers
China	>200 (as of 2010) ¹⁰³	>5,000 ¹⁰⁴	>200 (as of 2010)	5,000-6,000 ¹⁰⁵	>200 (as of 2010)	5,000-6,000	209 ¹⁰⁶	6,057 ¹⁰⁷
Laos	At least 3 ¹⁰⁸	approx. 400 at just one of the licensed facilities ¹⁰⁹	4 ¹¹⁰	537 - 700 ¹¹¹	4 ¹¹²	~380 ¹¹³	6 ¹¹⁴	352-399 ¹¹⁵
Thailand	24 (as of 2011) ¹¹⁶	1,174 tigers and leopards (as of 2013) ¹¹⁷	40 ¹¹⁸	1,450 ¹¹⁹	44 ¹²⁰	1,450-2,500 ¹²¹	71 ¹²²	1,595 - >1,900 ¹²³
Vietnam	9 ¹²⁴	127 ¹²⁵	14 ¹²⁶	189 ¹²⁷	17 ¹²⁸	~199 ¹²⁹	21 ¹³⁰	303

Appendix III

Assessing the prevalence of captive tigers in trade¹³¹

A tiger is regarded as likely/suspected to have derived from a captive source if one or more of the following criteria apply, based on the best available information:

- 1) The tiger is seized at a facility (such as a zoo, tiger farm or circus) or private premises
- 2) Reporting and/or intelligence suggests that the tiger was supplied from a captive facility
- 3) Reporting and/or intelligence suggests the incident was linked to individuals who are in turn connected to a facility known to or strongly suspected to trade in captive tigers
- 4) DNA testing confirms the tiger is derived from a population not indigenous to the location, e.g. Siberian tiger seized in Thailand, Bengal tiger seized in Indonesia
- 5) The number and/or form (e.g. live cubs) of tigers seized is vastly disproportionate to the wild population in the country or region, e.g. eight live tigers seized in Laos, four live tiger cubs seized in China
- 6) The tiger shows atypical coloration that is frequently encountered in captivity, e.g. white tigers, 'golden' tigers
- 7) The specific location of the seizure is a known hub for transport of captive tigers and there is no viable wild population in the region (e.g. Cau Treo on the Laos-Vietnam border)

When one or more of the criteria above are fulfilled, the following criteria further indicate the tiger may derive from captive sources:

- 1) A high number and diversity of species are seized together, such as five tiger carcasses with four leopards and three clouded leopards
- 2) Tiger carcasses are frozen, indicating the carcass was sourced from a facility and frozen for onward transport

In some cases, only certain tigers seized in a given incident will be logged as suspected to derive from captive sources. For example, if three tiger skins are seized together in China, one of which is a white tiger, and no additional circumstances indicate a captive source, only the one white tiger skin would be logged as suspected captive source.

Minimum number of tigers* seized since 2000 (number of tigers suspected to derive from captive sources in parentheses)

NB: tigers not recorded as suspected to derive from captive sources are not necessarily from wild sources, only lack of specific indication of captive source

Year	China		Laos†		Thailand‡		Vietnam	
		Cap.		Cap.		Cap.		Cap.
2000	6	0	0	0	0	0	0	0
2001	24	0	0	0	0	0	0	0
2002	7	0	0	0	0	0	0	0
2003	33	0	0	0	13	10	0	0
2004	3	0	0	0	2	1	0	0
2005	16	0	0	0	4	3	0	0
2006	5	0	0	0	2	2	2	0
2007	15 (i)	6 (i)	0	0	0	0	4	0
2008	5 (i)	1 (i)	0	0	15	15	9	9
2009	13 (i)	1 (i)	0	0	25	25	11	2
2010	2	0	0	0	17	17	7	6
2011	2	1	1 (iii)	1 (iii)	6	6	6	5
2012	8	4	1 (iii)	1 (iii)	51	47	20	15
2013	8	2	9 (iii)	9 (iii)	0	0	3	2
2014	48	31	0	0	12	12	5	5
2015	8	4	2	0	2	0	3	3
2016	7	4	0	0	219	219	9	7
2017	8	4	0	0	4	3	12	12
2018	13	12	11	11	4	0	16	14
2019	10	5	0	0	0	0	28	25
Total	241	75	24	22	376	360	135	105

*Whole tigers represented by seizures of skins, carcasses, stuffed specimens or live tigers. Does not count additional seizures of bones, teeth, claws or other body parts. A zero in the table above does not necessarily indicate no seizures of tiger parts took place in that country that year, but that any seizures did not represent a whole animal

†While few seizures have been reported in Laos, a minimum of 34 tigers seized in 12 incidents in Vietnam 2012-19 were believed to have come from or through Laos

‡A minimum of 53 tigers seized in Thailand in 12 incidents 2004-14 were believed to have been en route to Laos

(i) Includes average of one per year based on undated report of three tigers seized during period 2007-09

(ii) Four additional tigers counted in 2012 relate to reported seizures of live tigers from period 2010-16 (CITES CoP16 Doc 50 Annex 3b), for which specific year was not given, minus live tigers otherwise counted during this period to eliminate possibility of double counting

(iii) Includes average of one per year based on undated report of three tigers seized during period 2010-12 (TRAFFIC Skin and Bones Revisited)

References

1. Compilation of population estimates as reported to the Global Tiger Initiative by national governments, IUCN
2. Goodrich, J., Lynam, A., Miquelle, D., Wibisono, H., Kawanishi, K., Pattanavibool, A., Htun, S., Tempa, T., Karki, J., Jhala, Y. & Karanth, U. 2015. *Panthera tigris*. The IUCN Red List of Threatened Species 2015: T15955A50659951. <https://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T15955A50659951.en>
3. Open source seizure data compiled by EIA including reports from Education for Nature Vietnam, Fauna and Flora International, Freeland, NABU, TRAFFIC, Wildlife Conservation Nepal, Wildlife Conservation Society, Wildlife Friends Foundation Thailand, Wildlife Protection Society of India, Wildlife Trust of India, WildTiger, WildTeam, court records, government agencies and media sources.
4. Wong, R. and Krishnasamy, K. 2019. Skin and Bones Unresolved: An Analysis of Tiger Seizures from 2000–2018. TRAFFIC, Southeast Asia Regional Office, Petaling Jaya, Selangor, Malaysia
5. Ibid
6. CITES. 14.69 and 17.102 Captive-bred and ranched specimens. Available from: <https://www.cites.org/eng/dec/valid17/82204>
7. CITES SC70 Doc. 51 Annex 2 (Rev. 1). Available from: <https://cites.org/sites/default/files/eng/com/sc/70/E-SC70-51-A2-R1.pdf>
8. CITES Res. Conf. 12.5 (Rev. CoP18). Conservation of and trade in tigers and other Appendix-I Asian big cat species. Available from: <https://www.cites.org/sites/default/files/document/E-Res-12-05-R18.pdf>
9. USAID. 2018. Consumer research findings on ivory and tiger products in Thailand. Available from: https://www.usaidwildlifeasia.org/resources/reports/infosheet-thailand-ivory-and-tiger_4june2018_eng_final.pdf/view
10. EIA. 2019. 'Tiger bone' products made in Thailand and sold to Vietnamese and Chinese tourists. Available from: <https://eia-international.org/news/tiger-bone-products-made-in-thailand-and-sold-to-vietnamese-and-chinese-tourists/>
11. Bloch, S. 2019. Voi Lodge has finally been busted by the Hawks – what took them so long? Facebook post to Save the Beasts. Stop the Slaughter. Available from: <https://www.facebook.com/276640799057143/posts/voi-lodge-has-finally-been-busted-by-the-hawks-what-took-them-so-long-by-simon-bl/2614018278652705/>
12. Kempton Express, 2017. Nearly 1,000 donkey skins, 7 tiger skins found on Benoni plot. Available at: <http://kemptonexpress.co.za/149509/nearly-1-000-donkey-skins-7-tiger-skins-found-benoni-plot/>; Bloch, S. 2018. Alleged key player in lion bone syndicate in court after handing himself over the police. News 24, 27 November. Available from: <https://www.news24.com/SouthAfrica/News/alleged-key-player-in-lion-bone-syndicate-in-court-after-handing-himself-over-to-police-20181127>; Changsha Evening News. 2019. . 23 July. Available from: http://m.xinhuanet.com/hn/2019-07/23/c_1124786233.htm
13. CITES SC70 Inf. 24. Illegal tiger trade in the Czech Republic. Available from: <https://cites.org/sites/default/files/eng/com/sc/70/Inf/E-SC70-Inf-24.pdf>; Four Paws International. 2018. European tigers end up on the Asian market. Available from: <https://www.four-paws.org/campaigns-topics/topics/help-for-big-cats/tiger-trade>
14. EIA investigation into totoaba trade. 2018
15. Wong, R. and Krishnasamy, K. 2019. Skin and Bones Unresolved
16. Transcripts of conversations with multiple Chinese traders in Laos
17. World Animal Protection. 2019. Trading cruelty – how captive big cat farming fuels the traditional Asian medicine industry
18. Transcripts of conversations with traders in South-East Asia
19. China Judgments Online. 2018. . Available from: <http://wenshu.court.gov.cn/content/content?DocID=8b685e3a-7edf-4b76-9686-a89500a25b19>
20. China Judgements Online. 2018. . Available from: <http://wenshu.court.gov.cn/content/content?DocID=09d01fa3-c873-44f3-ad3d-a8ac00da4ba6>
21. EIA. 2020. In litt
22. EIA. 2018. Down to the Bone: China's alarming trade in leopard bones. Available from: <https://eia-international.org/report/down-to-the-bone-chinas-alarming-trade-in-leopard-bones/>
23. Nowell, K. and Pervushina, N. 2014. CITES SC65 Doc. 38, Annex 1. Review of implementation of Resolution Conf. 12.5 (Rev. CoP16) on Conservation of and trade in tigers and other Appendix-I Asian big cat species. Available from: https://www.cites.org/sites/default/files/eng/com/sc/65/E-SC65-38-A01_0.pdf
24. CITES CoP18 Doc. 71.1, Annex 4. Review of implementation of Resolution Conf. 12.5 (Rev. CoP17) on Conservation of and trade in tigers and other Appendix-I Asian big cats. Available from: <https://cites.org/sites/default/files/eng/cop/18/doc/E-CoP18-071-01.pdf>
25. National Tiger Conservation Authority, Ministry of Environment, Forest & Climate Change, Government of India. 2019. Report of the 3rd Stocktaking Conference. Available from: http://globaltigerforum.org/wp-content/uploads/2019/03/Report_3rd-Stocktaking-Conference.pdf
26. The Amur Tiger Programme. 2019. Vladivostok to host 2022 tiger conservation forum. Available from: <http://programmes.putin.kremlin.ru/en/tiger/news/25925>
27. CITES Management Authority of Thailand. 2010. CoP15 Inf. 4. Tiger range state report – Thailand. Available from: <https://cites.org/sites/default/files/common/cop/15/inf/E15i-04.pdf>
28. CITES Management Authority of Thailand. 2010. SC61 Doc. 41 Annex 3. Conservation of and trade in tigers and other Appendix-1 Asian big cat species. Available from: <https://www.cites.org/sites/default/files/common/com/sc/61/E61-41-A3.pdf>

29. Presentation of Thailand to 3rd Asia Ministerial Conference on Tiger Conservation, New Delhi, April 2016
30. CITES SC70 Doc. 51 Annex 2 (Rev. 1)
31. See Appendix III
32. Austin, R. 2019. Vietnamese crime syndicates target Thailand's last tigers. *The Guardian*, 24 January. Available from: <https://www.theguardian.com/global-development/2019/jan/24/tiger-poachers-arrested-by-thai-police-were-part-of-vietnamese-gang>
33. EIA, ENV and WFFT. 2017. Cultivating Demand: The growing threat of tiger farms. Available from: <https://eia-international.org/wp-content/uploads/Cultivating-Demand-The-Growing-Threat-of-Tiger-Farms.pdf>
34. Ibid
35. Species Survival Network / Education for Nature Vietnam. 2014. Caged Assets: tiger farming and trade. Available from: <https://eia-international.org/wp-content/uploads/Caged-Assets-Tiger-farming-and-trade-FINAL-v2.pdf>
36. Wong, R. and Krishnasamy, K. 2019. Skin and Bones Unresolved
37. CITES CoP12 Doc. 33 Annex. Report of the CITES Tiger Mission Technical Team, Thailand, 26-30 August 2002. Available from: <https://www.cites.org/sites/default/files/eng/cop/12/doc/E12-33A.pdf>
38. EIA. 2001. Thailand's Tiger Economy. Available from: <https://eia-international.org/report/thailands-tiger-economy/>
39. CITES CoP12 Doc. 33 Annex
40. CITES SC67 Doc. 12.1. Application of Article XIII in the Lao People's Democratic Republic. Available from: <https://cites.org/sites/default/files/eng/com/sc/67/E-SC67-12-01.pdf>
41. Davies, N. and Holmes, O. 2016. Revealed: how senior Laos officials cut deals with animal traffickers. *The Guardian*, 27 September. Available from: <https://www.theguardian.com/environment/2016/sep/27/revealed-how-senior-laos-officials-cut-deals-with-animal-traffickers>
42. EIA. 2015. Sin City: Illegal wildlife trade in Laos' Special Economic Zone. Available from: <https://eia-international.org/report/sin-city-illegal-wildlife-trade-in-laos-special-economic-zone/>
43. EIA investigation, 2017
44. Nuwer, R. 2017. Asia's Illegal Wildlife Trade Makes Tigers a Farm-to-Table Meal. *The New York Times*, 5 June. Available from: <https://www.nytimes.com/2017/06/05/science/animal-farms-southeast-asia-endangered-animals.html?auth=link-dismiss-google1tap>
45. Intervention from the delegation of Lao PDR to CITES CoP17
46. EIA. 2019. Tiger trade in Lao PDR and call for trade suspensions at CITES SC71. Available from: <https://eia-international.org/wp-content/uploads/EIA-document-Tiger-trade-in-Lao-PDR-and-call-for-trade-suspensions-at-CITES-SC71.pdf>
47. EIA. 2019. Captive Tiger Facilities [interactive map]. Available from: <https://eia-international.org/wildlife/wildlife-trade-maps/illegal-trade-seizures-captive-tiger-trade/>
48. EIA, ENV, WFFT (2017), Cultivating Demand
49. Hoang Phong. 2020. Three jailed for trafficking tiger carcasses from Laos. *VN Express*, 16 January. Available from: <https://e.vnexpress.net/news/news/three-jailed-for-trafficking-tiger-carcasses-from-laos-4042953.html>
50. U.S. Department of the Treasury. 2018. Treasury Sanctions the Zhao Wei Transnational Criminal Organization. Available from: <https://home.treasury.gov/news/press-releases/sm0272>.
51. Daily Monitor. 2017. Foreigners sent for trial over ivory. 12 July. Available from: <http://www.monitor.co.ug/News/National/Foreigners-sent-for-trial-over-ivory/688334-4011216-ijtwsnz/index.html>.
52. CITES SC69 Doc. 29.1. Compliance matters: Application of Article XIII in the Lao People's Democratic Republic. Available from: <https://cites.org/sites/default/files/eng/com/sc/69/E-SC69-29-02-01.pdf>
53. Laos Government report, 2016
54. Tigers: Hunting the Traffickers. 2020. BBC Two Television, 4 March
55. McCoy, T. 2019. Tiger farms in Laos fuel demand for tiger parts on black market. *Washington Post*, 9 May. Available from: https://www.washingtonpost.com/gdpr-consent/?next_url=https%3a%2f%2fwww.washingtonpost.com%2fgraphics%2f2019%2finvestigations%2ftiger-farms-poaching-laos%2f
56. AFP. 2019. Case against wildlife trafficking 'kingpin' dismissed. *Bangkok Post*, 30 January. Available from: <https://www.bangkokpost.com/thailand/general/1620570/case-against-wildlife-trafficking-kingpin-dismissed>
57. The World Bank. 2015. Lao PDR extends environmental protection with US\$15 million additional World Bank financing. Available from: <https://www.worldbank.org/en/news/press-release/2015/04/29/lao-pdr-extends-environmental-protection-with-us15-million-additional-world-bank-financing>
58. Summary record of the 71st meeting of the CITES Standing Committee. Available from: <https://cites.org/sites/default/files/eng/com/sc/71/exsum/E-SC71-SR.pdf>
59. EIA. 2019. Tiger trade in Lao PDR and call for trade suspensions at CITES SC71.
60. Lintner, B. 2016. Laos is open for business, but on its own terms. *World Politics Review*, 29 March. Available from: <https://www.worldpoliticsreview.com/articles/18325/laos-is-open-for-business-but-on-its-own-terms>
61. Asia/Pacific Group on Money Laundering. 2011. Mutual Evaluation Report, Anti-Money Laundering and Combating the Financing of Terrorism, Lao PDR. Available from: <http://www.apgml.org/members-and-observers/members/member-documents.aspx?m=a6c4a803-0e15-4a43-b03a-700b2a211d2e>
62. Financial Action Task Force Global Assessment calendar. Available from: https://www.fatf-gafi.org/calendar/assessmentcalendar/?hf=10&b=0&r=%2Bf%2Ffatf_country_

- en%2Flao+people%27s+democratic+republic&s=asc(document_lastmodifieddate)&table=1
63. U.S. Department of State. 2019 END Wildlife Trafficking Report. Available from: <https://www.state.gov/2019-end-wildlife-trafficking-report/>
64. ENV. 2010. Summary of tiger trade investigation findings. Available from: [http://envietnam.org/library/Resource%20and%20Publication/Tiger%20summary%20\(ENfinal,%2013%20March%202010\).pdf](http://envietnam.org/library/Resource%20and%20Publication/Tiger%20summary%20(ENfinal,%2013%20March%202010).pdf)
65. Nguyen Thuy. 2014. Tiger farm located near residential area. DTI News, 7 December. Available from: <http://dtinews.vn/en/news/021/37636/tiger-farm-located-near-residential-area.html>
66. EIA, ENV and WFFT. 2017. Cultivating Demand
67. ENV. 2018. Rhino horn trafficking kingpin in Vietnam sentenced to 13 months in prison. Available from: <http://envietnam.org/index.php/component/content/article/14-sample-data-articles/859-rhino-horn-trafficking-kingpin-in-vietnam-sentenced-to-13-months-in-prison-1>
68. VietnamNet. 2012. Who protects illegal tiger farming? October 31. Available from: <http://english.vietnamnet.vn/fms/special-reports/52737/whoprotects-illegal-tiger-farming-.html>; Bale, R. 2018. Exclusive: Illegal Tiger Trade Fed by 'Tiger Farms,' New Evidence Reveals. National Geographic, 29 July. Available from: <https://www.nationalgeographic.com/animals/2018/07/wildlife-watch-news-captive-tiger-farms-trafficking-investigation-vietnam-laos/>
69. EIA. 2018. Exposure of big cat slaughterhouse shows scrutiny of South Africa's tiger farms is long overdue. Available from: <https://eia-international.org/news/exposure-big-cat-slaughterhouse-shows-scrutiny-south-africas-tiger-farms-long-overdue/>
70. Republic of South Africa Department of Environment, Forestry and Fisheries. 2019. Republic of South Africa Department of Environment, Forestry and Fisheries report back on rhino poaching in South Africa in 2019. 3 February. Available from: https://www.environment.gov.za/mediarelease/reportbackon2019_rhinopoachingstatistics
71. EMS Foundation and Ban Animal Trading. 2018. The Extinction Business: South Africa's 'Lion' Bone Trade. Available from: <https://emsfoundation.org.za/wp-content/uploads/THE-EXTINCTION-BUSINESS-South-Africas-lion-bone-trade.pdf>
72. EIA. 2014. Ongoing review of the existing Pelly certification of China for trade in tiger parts and products. Available from: <https://eia-international.org/report/ongoing-review-of-the-existing-pelly-certification-of-china-for-trade-in-tiger-parts-and-products/>
73. EIA. 2013. Tiger Farming Timeline. Available from: https://eia-international.org/wp-content/uploads/EIA-Tiger-Farming-Timeline-Feb-27-2013_2.pdf
74. EIA. 2013. Hidden in Plain Sight: China's clandestine tiger trade. Available from: <https://eia-international.org/report/hidden-in-plain-sight-chinas-clandestine-tiger-trade/>
75. EIA. 2014. Briefing on the manufacture of tiger bone wine in China. Available from: <https://eia-international.org/report/briefing-on-the-manufacture-of-tiger-bone-wine-in-china/>
76. EIA. 2013. Hidden in Plain Sight
77. Hunan Sanhong Pharmaceutical Company Limited "True Tiger Wine" Project, Feasibility Studies Report. 2005. Available from: https://eia-international.org/wp-content/uploads/Sanhong-Real-Tiger-Wine-Feasibility-Report_Engl.pdf
78. 长沙三鸿生物科技有限公司“全真虎酒”项目，可行性研究报告. Available from: https://eia-international.org/wp-content/uploads/Sanhong-Real-Tiger-Wine-Feasibility-report_Chinese1.pdf
79. EIA, ENV, WFFT (2017), Cultivating Demand
80. EIA. 2018. China's conservation image tarnished by tiger bone decision. Available from: <https://eia-international.org/blog/chinas-conservation-image-tarnished-tiger-bone-decision/>
81. Decisions of the Standing Committee of the National People's Congress relating to a total prohibition on illegal wildlife trade, eliminating the bad habit of excessive eating of wildlife, and effectively safeguarding the lives and health of the public. 2020. [English translation] Available from: <https://eia-international.org/wp-content/uploads/Decisions-of-the-Standing-Committee-of-the-National-People%E2%80%99s-Congress-24-February-2020.pdf>; Xie, E. 2020. China bans trade, eating of wild animals in battle against coronavirus. South China Morning Post, 24 February. Available from: https://www.scmp.com/news/china/article/3052151/china-bans-trade-eating-wild-animals-battle-against-coronavirus?fbclid=IwAR38bhOQ2ienc0cGbSZNe2NblRsrngKNJHvRztEpFM_UfYjUfnsnV20X-y8
82. EIA. 2020. China's Wildlife Protection Law should be changed to outlaw trade in protected species. Available from: <https://eia-international.org/news/chinas-wildlife-protection-law-should-be-changed-to-outlaw-trade-in-protected-species/?fbclid=IwAR09FAioYDvigjEmvftlzHxuEqJdBljchEcNnWlRhyK99TRWYhV8uN82F0>
83. Doyle, A. 2007. China restaurant served banned tiger meat: CITES. Reuters, 12 June. Available from: <https://www.reuters.com/article/us-tigers/china-restaurant-served-banned-tiger-meat-cites-idUSL1236495320070612>
84. EIA. 2013. Hidden in Plain Sight
85. Baker, K. <https://www.dailymail.co.uk/news/article-2891629/Chinese-businessman-jailed-killing-eating-three-tigers.html>.
86. EIA. 2015. Sin City
87. Qianjiang Evening News in Apple Daily. 2020. 2 March. 愛野味 動物園病死老虎\$6.6萬售餐廳. Available from: <https://hk.news.appledaily.com/china/20200302/ABPRTIUGLMTJ5NXIJUP5L2XSTM/>
88. Seidensticker J., Christie S. and Jackson, P. 1999. Preface. In: J. Seidensticker, S. Christie and P. Jackson (eds), Riding the tiger: tiger conservation in human-dominated landscapes, Cambridge University Press, Cambridge, UK
89. Goodrich, J., Lynam, A., Miquelle, D., Wibisono, H., Kawanishi, K., Pattanavibool, A., Htun, S., Tempa, T., Karki, J., Jhala, Y. & Karanth, U. 2015. Panthera tigris . The IUCN Red List of Threatened Species 2015: e.T15955A50659951. <https://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T15955A50659951.en>
90. Supplementary information in Chundawat, R.S., Habib, B., Karanth, U., Kawanishi, K., Ahmad Khan, J., Lynam, T., Miquelle, D., Nyhus, P., Sunarto, S., Tilson, R. & Sonam Wang 2011. Panthera tigris . The IUCN Red List of Threatened Species 2011: e.T15955A5332619.
91. Global Tiger Initiative Secretariat. 2011. Global Tiger Recovery Program 2010-2022. Available from: <http://>

- documents.worldbank.org/curated/en/874191468331048098/pdf/732050WP00Box30110Final0Version0Eng.pdf
92. Taken from Global Tiger Initiative Secretariat. 2011. Global Tiger Recovery Program, 2010-2022. The World Bank, Washington D.C., USA. Available at: http://www.globaltigerinitiative.org/download/St_Petersburg/GTRP_latest.pdf
93. Goodrich, J., Lynam, A., Miquelle, D., Wibisono, H., Kawanishi, K., Pattanavibool, A., Htun, S., Tempa, T., Karki, J., Jhala, Y. & Karanth, U. 2015. *Panthera tigris*. The IUCN Red List of Threatened Species 2015: e.T15955A50659951. <https://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T15955A50659951.en>
94. WWF. 2016. Wild tiger numbers increase to 3,890. Available from: <http://tigers.panda.org/news/wild-tigers-numbers-increase-to-3890/>
95. Global Tiger Initiative Secretariat. 2011. Global Tiger Recovery Program 2010-2022
96. Goodrich, J., Lynam, A., Miquelle, D., Wibisono, H., Kawanishi, K., Pattanavibool, A., Htun, S., Tempa, T., Karki, J., Jhala, Y. & Karanth, U. 2015. *Panthera tigris*. The IUCN Red List of Threatened Species 2015
97. National Tiger Conservation Authority, Ministry of Environment, Forest & Climate Change, Government of India. 2019. Report of the 3rd Stocktaking Conference. Detailed presentations available upon request
98. M. Abdul Aziz, Simon Tollington, Adam Barlow, Christina Greenwood, John M. Goodrich, Olutolani Smith, Mohammad Shamsuddoha, M. Anwarul Islam, Jim J. Groombridge, Using non-invasively collected genetic data to estimate density and population size of tigers in the Bangladesh Sundarbans, *Global Ecology and Conservation*, Volume 12, 2017, Pages 272-282, ISSN 2351-9894, <https://doi.org/10.1016/j.gecco.2017.09.002>.
99. The Indian Express. 2019. The right count (Editorial). 26 December. Available from: <https://indianexpress.com/article/opinion/editorials/tiger-population-india-wildlife-the-right-count-ntca-6184814/>
100. Vaidyanathan, G. 2019. India's tigers seem to be a massive success story – many scientists aren't sure. *Nature*, 30 October. Available from: <https://www.nature.com/articles/d41586-019-03267-z>
101. Akchousanh Rasphone, Marc Kéry, Jan F. Kamler, David W. Macdonald, Documenting the demise of tiger and leopard, and the status of other carnivores and prey, in Lao PDR's most prized protected area: Nam Et - Phou Louey, *Global Ecology and Conservation*, Volume 20, 2019, e00766, ISSN 2351-9894, <https://doi.org/10.1016/j.gecco.2019.e00766>.
102. Hance, J. 2019. How Laos lost its tigers. *Mongabay*, 28 October. Available from: <https://news.mongabay.com/2019/10/how-laos-lost-its-tigers/>
103. CITES Management Authority of China. 2010. Comments on CoP14 Doc. 43.2 (brochure)
104. CITES Management Authority of China. 2014. CITES SC65 Doc 38 Annex 3, Report on the implementation of Resolution Conf. 12.5 (Rev. CoP16). Available from: <https://www.cites.org/sites/default/files/eng/com/sc/65/EF5-SC65-38-A03.pdf>
105. Ibid; China CITES Management Authority. 2010. Tigers Conservation in China (brochure distributed by China's CITES Management Authority at CITES CoP15)
106. CITES SC70 Doc. 51 Annex 2 (Rev 1)
107. Ibid
108. Species Survival Network / Education for Nature Vietnam. 2014. Caged Assets
109. Ammann, K. 2014. Inside Tiger Farming: A Long Chain of Profiteers. Available from: <https://greatcatsoftheworld.wordpress.com/2014/04/20/inside-tiger-farming-a-long-chain-of-profiteers/>
110. EIA, ENV and WFFT. 2017. Cultivating Demand
111. Ibid; Laos Government intervention to CITES CoP16
112. EIA, ENV and WFFT. 2017. Cultivating Demand
113. Ibid
114. EIA. 2019. Tiger trade in Lao PDR and call for trade suspensions at CITES SC71
115. Ibid
116. CITES Management Authority of Thailand. 2010. SC61 Doc. 41 Annex 3
117. CITES Management Authority of Thailand. 2012. CoP16 Doc. 50 (Rev. 1) Annex 3 a. Available from: <https://www.cites.org/sites/default/files/eng/cop/16/doc/E-CoP16-50.pdf>
118. EIA. 2016. Where Are the Tigers – interactive map of captive tiger facilities
119. EIA. 2016. EIA Briefing for CITES CoP17: Asian big cats. Available from: https://eia-international.org/wp-content/uploads/Part-I_EIA-Briefing-on-Asian-Big-Cats-for-CITES-COP17_Jul-29-2016-2.pdf
120. EIA, ENV and WFFT. 2017. Cultivating Demand
121. Ibid
122. WFFT. 2019. Pers comms
123. CITES SC70 Doc. 51 Annex 2 (Rev 1); WFFT. 2019. Pers comms
124. EIA, ENV and WFFT. 2017. Cultivating Demand
125. Education for Nature - Vietnam (ENV) Wildlife Crime Incident Database
126. EIA, ENV and WFFT. 2017. Cultivating Demand
127. Ibid
128. Ibid
129. Ibid
130. ENV. 2020. Pers comms
131. Dataset compiled by EIA from multiple sources as described here at: EIA. 2019. Illegal trade seizures: Asian big cats. Available from: <https://eia-international.org/wildlife/wildlife-trade-maps/illegal-trade-seizures-asian-big-cats/>

