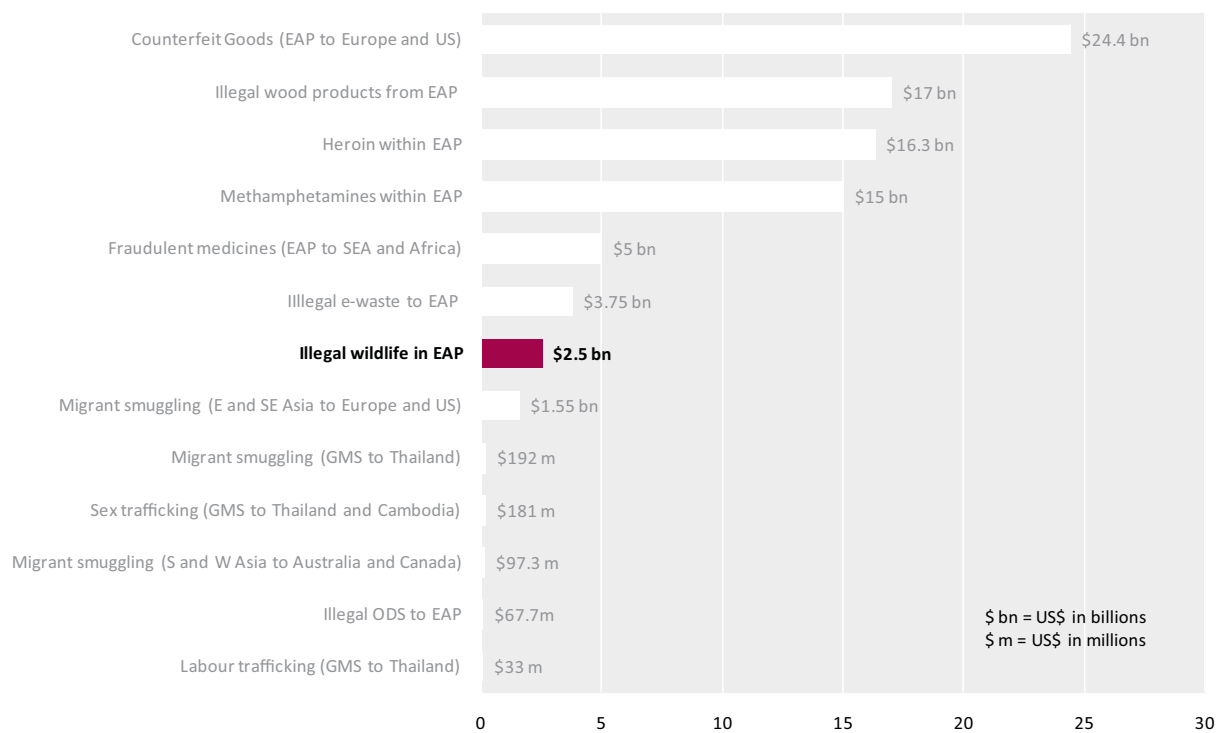


Chapter 7

The illegal wildlife trade in East Asia and the Pacific



NATURE OF THE THREAT

<p>1. Extinction of species: regional extinction of tigers, rhinos and other Asian species, extinction of African species (rhinos and elephants), severe depletion of marine wildlife, disruption of ecological processes.</p>	<p>2. Socio-economic impoverishment: state revenues loss, reduced livelihood options for rural communities, spread of disease and damage to public health.</p>
<p>3. Corruption: undermines rule of law and accountability.</p>	

1. *What is the nature of this market?*

The harvesting of natural resources is basic to every day human life. The global exchange of wild plants and animals provides us with food, pharmaceuticals, building materials, decorative objects, clothing, cultural and religious items, and pets. In 2008, the combined global value of legally traded commodities derived from wild plants and animals was approximately US\$24.5 billion.¹

The supply of wildlife is not infinite and its trade requires tight and rigorous regulation. While the illegal trade in wildlife is a major threat to biodiversity, it provides a significant source of profit for criminals. By distorting and undercutting legitimate commerce, it can cause economic and social disruption.² Governments impacted by illegal wildlife trade are deprived of direct and indirect sales and tax revenues on import and export goods – goods which would normally be state-controlled natural resources. Furthermore, the high level of corruption underpinning this illegal activity poses a serious threat to national governance.

Where the illegal wildlife trade is allowed to continue, it can also undermine sustainable development and poverty alleviation objectives because it depletes the natural assets upon which rural communities depend for their livelihoods. In Cambodia, Indonesia, Lao PDR and Viet Nam, plant and animal products provide subsistence to the rural population with food, energy, materials for housing, medicines and income. Lack of access to this capital erodes vital coping mechanisms for a large part of rural communities in the region.

In East Asia, population growth and burgeoning affluence has led to rising demand for exotic and luxury products, including wildlife products.³ China is the region's largest economy and simultaneously the largest consumer market for wildlife. Most wildlife is consumed as food or as ingredients in traditional medicines.⁴ One study in Guangdong, China found that rising income accounted for

80% of the increase in shark fin consumption in that province.⁵ Another recent survey on Chinese attitudes found that respondents were motivated to consume wildlife for ostentatious reasons, such as displaying social status and respect for guests, as well as for perceived health benefits.⁶

Traditional medicine attracts a wildlife trade driven by often-unverified beliefs about the medicinal properties of rare plants and animals or their parts and derivatives. Examples include: orchids, tiger parts and rhino horn. In Asia, traditional medicine is tied very closely to cultural values and traditions that have been practiced for thousands of years. The World Health Organization estimates that 80% of the population in some Asian and African nations is dependent on traditional medicine for primary health care.⁷ Believed to be expanding at a rate of 10% per annum⁸, the market for traditional medicine is linked to illegal wildlife trade as it involves the consumption of products from endangered animals and their parts and derivatives.⁹

Although the medicinal properties of most traditional medicines using ingredients from endangered wildlife have been scientifically refuted, these medicines continue to be used. This use poses an enormous challenge to both policy makers and enforcement agencies. The most dramatic example of such misconceptions is the use of **rhino horn**, whose demand has recently grown exponentially in Viet Nam, after the spread of uncorroborated claims that rhino horn medicine cured a Vietnamese official of cancer. Today, a kilo of rhino horn is valued at approximately that of a kilo of gold. As a result, the survival of rhinos is under unprecedented pressure.¹⁰

¹ These estimates have been developed by TRAFFIC on the basis of an analysis of data contained in the 2009 UN COMTRADE (UN Comtrade 2009) and in the 2008 FAOSTAT (FAO 2008).

² Liddick 2011: p. 5.

³ TRAFFIC 2008

⁴ The World Bank 2005

⁵ Clarke 2003

⁶ TRAFFIC 2010: p. 9.

⁷ WHO 2008

⁸ Liddick 2011: p. 46.

⁹ Hayman and Brack 2002

¹⁰ Van Strien and others 2008. Two of three species of Asian rhinoceros, which were previously found across Southeast Asia, South Asia and in China, are close to extinction. Sumatran Rhinoceros which were previously found across Southeast Asia and South Asia are now critically endangered with less than 275 in the region. The Javan Rhinoceros is now among the rarest animals in the world. Due to poaching in Viet Nam, Javan rhinoceros have disappeared from mainland Southeast Asia with an estimated 40-50 individuals remaining now only in Indonesia.

Increasing wildlife trade is driving a broad range of wildlife species towards global extinction. The threat to iconic species like tigers, rhinoceros, elephants, and tuna is well-known globally. Yet, there are many more mammals, reptiles, marine species and plants that have declined drastically. Unfortunately, for these species, there is very limited public awareness. Consequently, protection is weak. A description is provided below of the species which account for the bulk of the illegal trade volume of wildlife in Southeast Asia and the Pacific.

Bear bile and gall bladders are used for the purposes of traditional medicine in East Asia and East Asian diaspora communities around the world.¹¹ But while the trade in bear bile is illegal in most parts of the region, the cross-border trade in raw bear bile, live bears and manufactured bile products remains widespread.¹² This is in violation of national laws and CITES regulations.¹³

Pangolins, also known as scaly anteaters, are nocturnal mammals native to Africa and Asia. The demand for pangolins as ‘luxury’ wild meat and for traditional medicine is driven by increasing consumer affluence mainly in China, Hong Kong (China), Taiwan (Province of China) and Viet Nam. The illegal international trade in Asian pangolins and their scales currently constitutes the principal threat

¹¹ Phillips and Wilson 2002

¹² According to recent research, bear bile medicines were found to be available in all the countries of mainland Southeast Asia and most countries in Northeast Asia, including China, Hong Kong (China), Japan, the Republic of Korea and Taiwan (Province of China). Whole gall bladders sold for US\$50 in Myanmar but as much as US\$2,000 in Hong Kong (China). In Thailand, gall bladder was found to be sold for US\$0.1 per gram compared to US\$110 per gram in Japan. Based on seizures of more than 7 kg of bear bile and more than 10,000 bear bile products between 2000 and 2010, the majority of seized products originated in China. Recent research has also indicated that the main producer countries of bear bile products in the region include China, Japan, Malaysia, Myanmar and Viet Nam. In the Republic of Korea, 60% of bear bile products on sale reportedly originate from Russia. In Hong Kong (China), all bear bile products were reported to have originated in Japan. See Phillips and Wilson 2002; Foley and others 2011; UNEP-WCMC 2012.)

¹³ Varying national and international laws and agreements are in place to regulate wildlife trade at sustainable levels. The most encompassing of these – the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) – specifies whether flora and fauna can be (a) traded freely (in which case they are not listed under CITES); (b) traded in volumes that that are not detrimental to the survival of species in the wild (in which case the species are listed on Appendix II of CITES), or (c) are indicated as protected in which case no or extremely limited trade is allowed (Appendix I of CITES). Other than CITES, most national environmental legislation is fairly weak across the region, with low penalties – usually a fine - for violations.

to this CITES-protected species.¹⁴ Recent seizures indicate that since pangolins have become rare in the region, brokers and traffickers are sourcing from Africa in order to meet the growing Asian demand.¹⁵

Reptiles traded as food items account for the majority of illegal wildlife trafficked from Southeast Asia to China. In 2011, Thai officials in Prachuab Khiri Khan seized more than 2,000 monitor lizards from Malaysia en route to China with an estimated retail value of US\$60,000.¹⁶ Freshwater turtles form a large part of the reptile trade¹⁷, and a significant portion of Asia’s freshwater turtles are now endangered.

All wild orchid species are protected by CITES. Worldwide, **orchids** are traded in high volumes. Southeast Asia is a major supplier to the retail trade which is estimated to be worth US\$9 billion per year. In 2000, orchid exports from Thailand alone amounted to more than US\$250 million in total sales, mostly in domestically-propagated cultivars rather than wild-collected plants. However, countries like Lao PDR have a substantial trade which is based on wild collection.

Illegal wildlife trade is by no means restricted to land-based species. Substantial volumes of protected **marine wildlife** are being illegally traded to supply regional and global demand, with extremely high profit margins for traders.

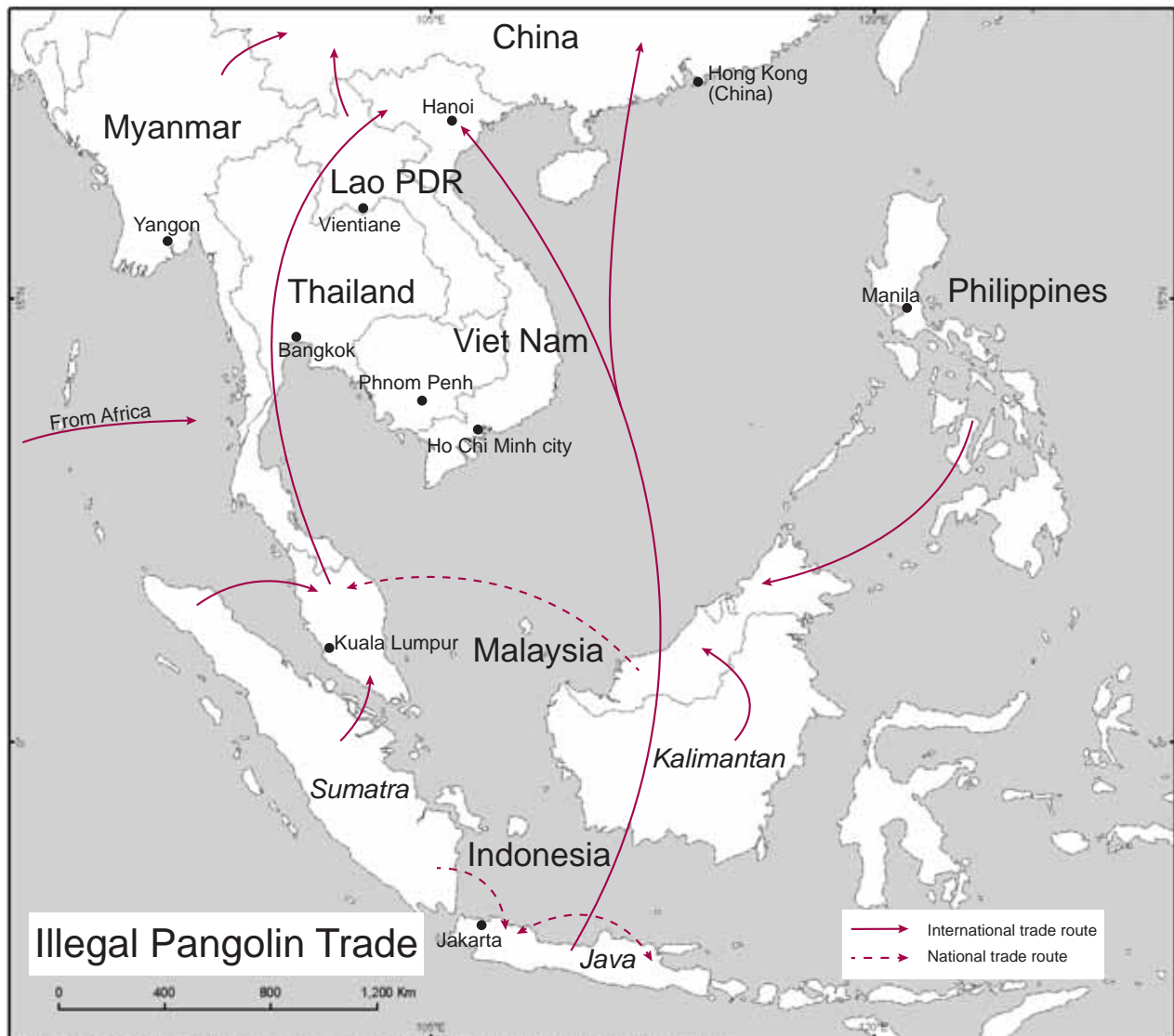
International demand for **shark** meat, fins and medicinal products is the driving force of a lucrative trade that is often illegal and is endangering a growing number of shark species around the world. Trade in CITES-listed shark species mainly consists of parts of Whale Shark, Basking Shark and Great

¹⁴ Duckworth and others 2008; CITES 2000. Since 1975, Asian pangolins have been listed as protected species in all but one of their range states and have been listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). In 2000, Parties to CITES prohibited international trade in Asian pangolins, for primarily commercial purposes, by establishing zero export quotas for each species.

¹⁵ The estimated annual demand for pangolins in China alone is over 150,000 pangolins. Based on the estimated price of around US\$1,550 per pangolin in 2007, the estimated annual market value is more than US\$176 million in China (Pantel and Chin 2009).

¹⁶ The Nation 2011 “2,000 Monitor Lizards Seized”, *The Nation*, 8 April 2011

¹⁷ In 2010, Malaysian Customs officials confiscated 4.3 metric tons of reptiles near the Thai border. Among the specimens were 28 turtles listed as endangered on the IUCN Red List, and 400 other turtles listed as vulnerable (Erickson-Davis 2011).



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Source: UNODC elaboration based on Challender 2012

White Shark.¹⁸ Similar to the consumption of other illegal wildlife, the consumption of shark fins is driven by wealth, social status and traditional beliefs.¹⁹ The main consumers in the region include China, Hong Kong (China), Taiwan (Province of China), Malaysia, Singapore and Thailand. The EU and the US also import significant quantities to supply demand among the East and Southeast Asian diaspora.²⁰ Despite efforts to properly regulate the

trade, there remains no comprehensive international agreement to protect sharks.²¹

Marine turtles are heavily traded in East Asia and the Pacific in spite of CITES protection. Almost 30,000 illegal items made from critically endangered Hawksbill turtle were found on sale in Viet Nam in 2002.²² This trade also supplies illegal export markets for tortoise-shell (Bekko) items in China and Japan. The depletion of turtle numbers off the coast of Viet Nam means that traders are now going further afield – to places such as the Philippines and the Pacific – in order to obtain turtles for the shell-processing industry.

¹⁸ Large fins of a Basking Shark or a Whale Shark are reported to be up to US\$ 57,000 for a single large fin (Clarke 2004).

¹⁹ Vannuccini 1999

²⁰ In 2004, research based on analysis of major Asian trading centers for shark fin indicated that 50% of the global trade passes through Hong Kong (China). (Clarke 2004). Fins of particularly desirable (and protected) species are amongst the most expensive seafood products in the world, previously retailing for up to USD740/kg in Hong Kong (China) (Clarke 2002: p.88).

²¹ Lack and Sant 2008

²² Van Dijk and Shepherd 2004

The demand for **coral and aquarium fish** in China, Europe and the United States is also being supplied by source countries in the Pacific.²³ Around 2,000 species of coral are listed in Appendix II of CITES. However, the high profits from the illegal trade in coral and fish has led to an increasing involvement of large trading businesses, particularly Asian-based businesses.²⁴ Collecting for the aquarium industry yields high profits compared with other types of near-shore wildlife harvesting.²⁵

Seahorses are mainly used for traditional medicine preparation but are also demanded by the aquarium trade. Since 2004, all seahorse species have been listed under Appendix II of CITES. However, a substantial trade in seahorses continues. Annually an estimated 20 million seahorses are harvested from the South China Sea and the Gulf of Thailand, mostly for export to China.²⁶

2. How is wildlife trafficking conducted?

In East Asia and the Pacific, the illegal wildlife trade encompasses a broad spectrum of commodities. It is best understood as a collection of generally different trade chains, each with its own smuggling methods, trafficking routes and markets. These trade chains may include both domestic and international specialists involved in storage, handling, transport, manufacturing, industrial production, marketing and retailing of wildlife products.

Internet, e-banking and efficient transport systems give dealers and smugglers unprecedented access to new markets.²⁷ Transport infrastructure (such as new roads opening up forested areas) provides better access to previously remote areas. This facilitates extraction and trade of wildlife products. Open borders and better infrastructure have both also permitted inflows of poachers and traders to areas where wildlife can be sourced.²⁸

Wildlife is transported by land, air or sea in different ways. Traffickers often use the same routes as legal importers, but falsify certificates, exploit regulatory loopholes, take advantage of poor capacity in law enforcement agencies or obtain genuine documents corruptly. Concealment methods are limited only by the relative bulk of shipments and the ingenuity of the smugglers. On airlines in the Pacific and Asia, wildlife traffickers have been caught squeezing birds into tubes, packing animals like tiger cubs into hand luggage and hiding eggs in specifically designed clothing. By land, transportation is carried out in special hidden compartments in cars, vans and trucks, and by employing couriers to take larger loads across borders in separate and smaller containers. Bears traded illegally in Viet Nam have even been transported as patients in ambulances and in vehicles carrying fake government plates.²⁹

A common method for smuggling includes fraudulent paperwork or mixing protected species with legal shipments of look-alike species. Wildlife “laundering” also occurs when wild-collected plants and animals are passed off as captive bred.³⁰

Countries in East Asia and the Pacific can play one or more roles (source, transit and destination) in the illegal international wildlife trade. Indonesia remains a key source country because it retains more intact forests than its Southeast Asian neighbours. Its forests are critical to the sustainability of species. As indicated by a staggering number of seizures between 2007 and 2011, New Zealand has become a source for criminal networks trading into Europe, but also as a destination country for endangered species coming from Southeast Asia and the Pacific Islands.

Major trans-shipment countries in Southeast Asia are Malaysia, Singapore, Thailand and Viet Nam. Viet Nam is both a major consumer country and

²³ Olivier 2003

²⁴ Green and Shirley 1999: p. 70.

²⁵ Balboa 2003. Another study has found that live coral exported from Palau for the aquarium trade is sold at around US\$3 per kg compared to coral sold locally for construction material at less than US\$0.02 per kg (Graham 1996: pp. 13-18.)

²⁶ Gray 2004

²⁷ The World Bank 2005: p. 4.

²⁸ TRAFFIC 2008: p. 6.

²⁹ SFNC 2003.

³⁰ For example, in 2004 and 2005, the origins of more than 3,000 wild Malagasy chameleons were intentionally mis-declared by Thai wildlife dealers to obtain CITES import permits in order to enter the chameleons in the pet trade. Thailand is not alone in facing problems with mis-declarations of protected reptiles. Many reptiles are exported from Indonesia to the European Union (EU) under paperwork declaring them to be captive-bred specimens. There are serious discrepancies, however, between the numbers of reptiles exported and the numbers of reptiles that purported breeding facilities in Indonesia are actually producing, or have the capacity to produce. These discrepancies suggest that large numbers of wild-caught reptiles are being mis-declared on CITES permits exported from Indonesia as “captive-bred”. See Nijman and Shepherd 2009.

an important trade conduit to China. In 2000, the estimated revenue generated by the illegal wildlife trade in Viet Nam totaled US\$67 million, more than 12 times the value of the legal wildlife trade in that country.³¹ By some estimates, 3,500 to 4,000 tons of illegal wildlife (foodstuffs and forest products) are trafficked in and out of Viet Nam each year.³²

Thailand is mainly a consumer and trans-shipper of pets and high-value luxury items. The trade is driven by its growing economy with accompanying increased purchasing power. It is facilitated by the country's major international transport hubs. Ivory trade into Thailand is an ongoing problem and the enforcement of the existing regulation has proven to be difficult. Once imported, illegal ivory from Africa is either re-exported or processed and passed off as local and legal products.³³ The increase in sales of illegal wildlife on the internet and the mushrooming of smaller markets in provincial cities in the outskirts of Bangkok poses a challenge to law enforcement efforts.³⁴

In markets across Southeast Asia, illegal wildlife is often openly sold in otherwise legal market contexts. In Indonesia, Pramuka market in Jakarta is one of the region's largest wildlife markets, specializing mostly in exotic birds from Asia and around the world. Pasay City in Manila is the focus of trade in rare and endemic species from the Philippines.

In Myanmar, international border crossings with Thailand and China (such as Three Pagodas Pass, Tachilek, Mong La and Golden Rock) also function as wildlife markets. The trade includes big cats and bear parts. Keng Larb in northeast Shan State, is becoming a new center for transnational wildlife trade, mainly by river to China, Lao PDR and Thailand.

The demand for illegal tiger parts (skins for trophies, penises, meat and bones for medicinal products) is increasing, particularly in China. Buyers of tiger parts are principally mainland business elites, public officials and the military, supplied by dealers in illicit medicinal products.³⁵ While India remains the world's largest supplier of tiger products, Indonesia,

Nepal, Thailand and Viet Nam have emerged as increasingly significant players in the trade over the last decade. Globally, there were 463 recorded seizures of tiger products from 2000 and 2010, including significant seizures in cities across China, Indonesia, Lao PDR, Malaysia, Thailand and Viet Nam.³⁶

Wildlife traffickers will change routes opportunistically to take advantage of new infrastructure, reduce transaction costs or avoid detection by authorities. For example, ivory shipments leaving Africa may take a multitude of different international routes on their way to East Asia. As a consequence, enforcement along any one route may simply serve to divert or displace future shipments.³⁷

The data analyzed in the Elephant Trade Information System (ETIS) show increasing frequencies of large-scale ivory seizures around the world. In recent years, ivory hauls of one metric tonne (mt) or more have occurred with increasing frequency, suggesting the growing involvement of African-based but Asian-run organized crime syndicates in the trade. Within Southeast Asia, large ivory seizures in Malaysia between 2010-2011 indicate that the country was a major trans-shipping hub in this chain. These shipments were likely bound for China, as that country has major ivory processing centers. As noted above, shipments have been made under false pretences, mislabeled as recycled plastics and mixed with scrap plastic materials.

The ability to move huge volumes of ivory at a time (even up to 7 mt) is indicative of the sophisticated criminalization of this trade. The sophistication has been driven by increased requirements for finance, investment in facilities for storage and staging purposes, and the ability to exploit well-organized trading links and networks between source countries and end-use markets. Furthermore, organized crime groups typically employ the tactics of collusion, corruption and protection to subvert the effectiveness of government regulators and law enforcers at important trade transit points such as border crossings, airports or seaports.

³¹ The World Bank 2005: p. 105.

³² Nguyen 2008: p. 109.

³³ Lohanan 2002: pp. 231-238; Stiles 2009.

³⁴ This trend has also been analyzed for specific species, see Todd 2011.

³⁵ EIA 2010

³⁶ Verheij and others 2010

³⁷ ETIS 2011

As outlined above, China is the largest consumer in East Asia and the Pacific of wildlife for food, for traditional medicine and other purposes such as ornaments. In 2010, Chinese Customs made 933 seizures of wildlife.³⁸ An analysis of the seizures suggests that illegal wildlife not only enters mainland China, but is also exported to neighbouring provinces of Hong Kong (China) and Taiwan (Province of China), as well as Japan and the Republic of Korea. According to the official data, Beijing and Guandong accounted for 80% of the total number of seizures in 2010, mainly due to the high level of connectivity of these two towns by air and sea ports. The vast majority of these seizures relate to imports. In particular, the number of seizures increased during national holidays, indicating that the trade correlates with vacation travel. Ivory represented 80-90% of such seizures, equivalent to an average of two ivory seizures a day. In 93% of the cases, the smugglers were Chinese, travelling from East Africa and the Middle East and detected at airports. The official data shows few seizures in the Tibet Autonomous Region and in provinces directly bordering Myanmar, Lao PDR and Viet Nam, although different sources indicate that those areas are exposed to large amounts of illegal wildlife entering China.³⁹ In comparison with other East Asian countries, sentencing for wildlife trafficking in China is severe. Between the years 2000 and 2010, prison sentences for the illegal trafficking of tiger parts ranged from five years to life imprisonment.

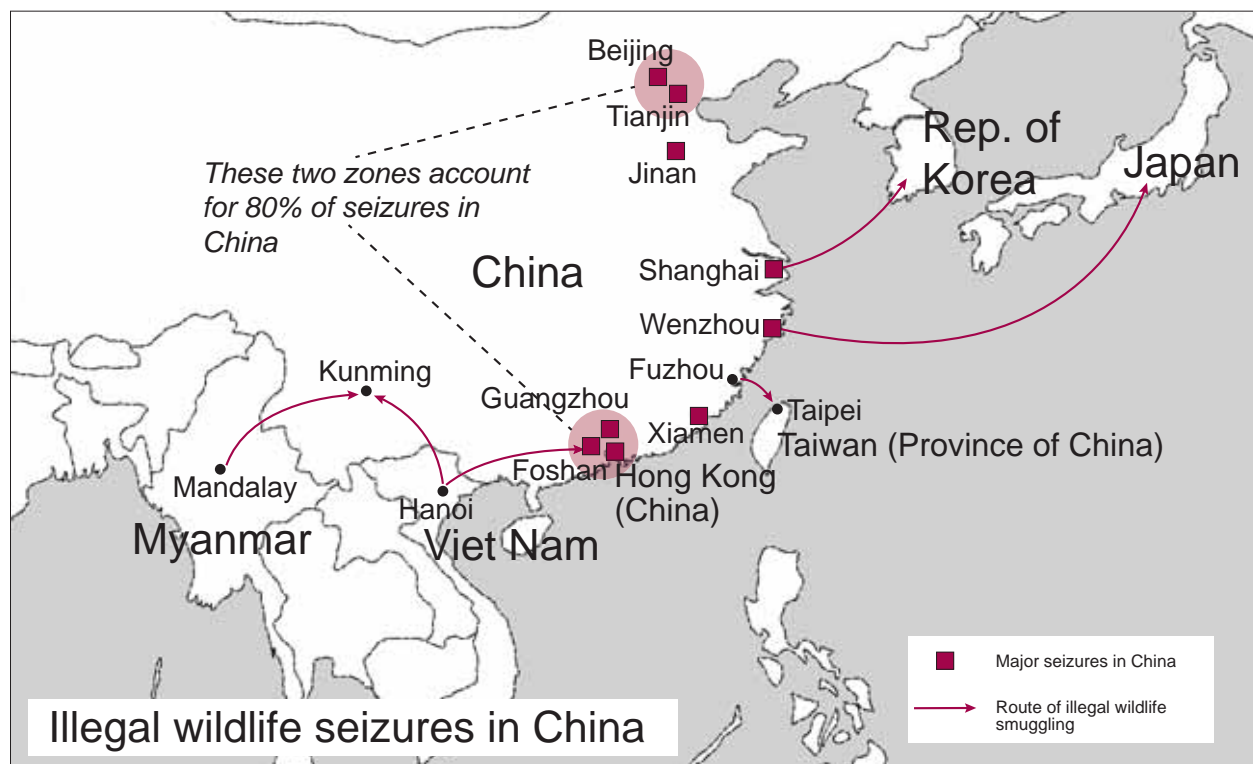
³⁸ China Customs 2011
³⁹ UNODC 2010



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 Source: Oswell 2010: p.7

The growth of internet commerce, including illicit transactions contributed to the growing illegal wildlife trafficking trade in the region. The most commonly traded item is ivory. But the trade also includes many protected animal and plant species including tiger parts, birds and primates. Online traders disguise illegal items by using misnomers or by advertising items as imitations but certify product authenticity in the item description. In some cases, wildlife items, including rhino horn and tiger products, are advertised as historical artifacts, with sellers claiming to have documentation showing their provenance. Over the course of one week, the International Fund for Animal Welfare found over 7,000 CITES-listed specimens and their derivatives available on-line in 11 countries, advertised for a total of US\$3.8 million.⁴⁰

⁴⁰ Todd and Place 2010



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Source: UNODC / China Customs 2011

3. Who are the traffickers?

The illegal wildlife trade is a lucrative business that involves a diverse range of actors, from rural harvesters, professional hunters, intermediate traders, wholesalers and retailers to final consumers and users.⁴¹ Illegal wildlife trade chains may be as simple as individual consumers making direct contact with specialty suppliers or it may involve networks of global scales. Long-distance movements of high-value wildlife require the involvement of a wide range of brokers, middle-men and shippers who are not necessarily wildlife traders but rather experts in the contraband of illegal goods, including drugs. Individuals involved may include domestic and international specialists in storage, handling, transport, processing, packaging, exporting, marketing, security and retailing. Various participants may handle 'official' expenditures (such as purchasing permits and paying fines), and 'unofficial' expenditures (bribes). They may also provide loans against future delivery of wildlife.⁴²

The involvement of organized networks dealing in illegal wildlife in other crimes (e.g., drug trafficking,

human trafficking, etc.) is difficult to ascertain. While there are sporadic reports of convergence of wildlife crime with drug trafficking and alleged human trafficking, such incidence at this stage is considered occasional and largely opportunistic. In fact, the trade in wildlife is very specialized and it requires skills – such as species identification and animal handling – that are not immediately transferrable to other crime areas. Furthermore, many specialized wildlife traffickers tend to engage in this business because it has potential for high profit margins with low-risk involvement. Nevertheless, large scale trafficking operations in high-value wildlife (such as ivory, rhino horn and tiger parts) do require a range of brokers and middle-men who may be involved in other forms of contraband. For them, wildlife trade may not be the primary illicit activity, but rather an additional income at relatively low risk.

The illegal wildlife trade is probably best understood as a collection of specialized sub-disciplines – each one accompanied by its own smuggling methods, trafficking routes and markets. These are not generally centrally controlled by a single leader, but they do involve informal reciprocity. Different types of wildlife crime are structured via myriad arrangements that vary from loosely organized small groups to large networks that control some or all

⁴¹ TRAFFIC 2008

⁴² Nijman 2010

facets of trade.⁴³ The level of violence and force used to commit wildlife crime – especially in the poaching phase – varies significantly according to the market value of the trafficked species.

In East Asia and the Pacific, illegal wildlife harvesters are predominantly rural poor people engaged in the trade to supplement otherwise low incomes. Poachers will often operate on an individual or ad hoc basis as a result of specific requests from a trader or a middleman.⁴⁴ Survey data indicates that the majority are adult men (women are involved in 20% of cases and children in less than 10%), working with small networks of family members or associates, who have links to middlemen, markets or distribution centers. In many cases poor rural people are dependent on this income for their subsistence. This fact, coupled with specialization and exclusivity in trade chain relations, renders them particularly at risk of exploitation by unscrupulous traders or middlemen.

Within East Asia, ivory trafficking has been orchestrated by Chinese nationals. In 2008 and 2009, there were 134 seizures (16 mt of ivory) which led to the arrest of several Chinese nationals in Africa. Another 25 mt of ivory originating from Africa (487 seizures) were seized en route to China.⁴⁵

The involvement of Vietnamese and Thai nationals has been reported in cases of rhino horn trafficking from South Africa. Their role ranges from the fraudulent procurement of trophy hunting permits to the smuggling of horns. Organized individuals are reported to take advantages of legal loopholes, such as in the case of ‘trophy hunts’, through which it is possible to obtain valid CITES licenses for the export of a single horn. In such case, individuals with no experience in hunting and firearms use have been reportedly hired as agents to procure special permits and export horns to Viet Nam.⁴⁶

4. *How is the money handled?*

Most interdictions and investigations of wildlife crime in East Asia and the Pacific have not been accompanied by efforts to understand and address associated monetary flows. Consequently, little is known about criminal financing and money handling in the trade.

⁴³ Pires and Moreto 2011

⁴⁴ Hoare 2007

⁴⁵ Milliken and others 2011

⁴⁶ Milliken and others 2009

Typically, harvesters are paid upon sale of the illicit wildlife good. In some cases however, harvesters are paid advances by traders ordering particularly valuable species. It is important to highlight that harvesters are rarely paid a monthly wage to hunt or gather wildlife on behalf of middlemen or traders.⁴⁷ Evidence suggests that harvesters are typically connected with intermediary traders or middlemen. These buying agents may receive wildlife products directly from individual harvesters, or engage with harvesting communities to acquire specific wildlife products.

The value added over the course of the wildlife marketing and processing chain can be substantial. It tends however, to be unequally apportioned among trade chain participants.⁴⁸ The value of animals and wildlife products typically increase by 25-50% as they pass consecutive links in the supply chain. This is particularly true in the case of rare medicinal and luxury items (tiger parts, rhino horn and ivory). An item worth just US\$20 at the time of its capture can be worth up to US\$100 at point of export, US\$600 at import in the destination country, and can be sold to a specialist retailer at US\$1,100.⁴⁹

Internet-based trade is another matter. A proliferation of online chat rooms and forums dedicated to exotic pets, coupled with new bank transfer mechanisms like Paypal, have resulted in a steadily growing illegal mail order trade in live animals. There is potential to trace the perpetrators if appropriate enforcement recourses are dedicated to the problem

5. *How big is the flow?*

From a methodological standpoint, providing precise estimates of the volume and value of the illegal wildlife trade is simply not possible at this point in time. The trade is highly diverse and the available data is very limited. Common sources of information for conducting such an analysis are market surveys and seizure data. However, both of these sources are flawed to some degree. Market surveys provide relevant information on the kind of species that are more commonly traded as well as their related

⁴⁷ TRAFFIC 2008: p. 26.

⁴⁸ Neumann and Hirsch 2000

⁴⁹ Hayman and Brack 2002: p. 11.

Illegal wildlife trafficking in the Pacific

The Pacific is increasingly becoming a source and transit region for illegal wildlife trafficking. Due to the diversity of terrestrial and marine species in the Pacific, depleting wildlife stocks in Southeast Asia and the limitations of law enforcement to address wildlife trafficking in Pacific states, this expanding trend is expected to continue. The trade poses a high threat to biodiversity both in the Pacific and on a global scale. Wild species that exist nowhere else in the world are often made up of small populations. These species are therefore disproportionately sensitive to decreases in population numbers. Due to such rarity, species found exclusively in the Pacific are popular in pet markets, particularly in Europe, Japan, New Zealand and the United States. As an example, in 2010 three traffickers, with alleged links to the illegal trade in iguanas in Fiji, were intercepted in New Zealand with 16 jewelled geckos.

The illegal wildlife trade includes reptiles, birds, marine species and wild orchids.⁵⁰ The Oceania Customs Organisation (OCO) reported 55 seizures of wildlife products in 2010. CITES data for the Pacific Islands report 374 seizures from 2005 to 2009. Most seizures were reported by Fiji with 56 and 76 seizure cases destined for New Zealand and the United States respectively.

The Solomon Islands is reported to be a wildlife laundering hub for other Pacific countries. Available research data suggests that huge volumes of CITES-listed birds are laundered through the Solomon Islands into the global wildlife trade. Large volumes of birds were found to be exported from the Solomon Islands in the 2000s mostly to

Malaysia and Singapore. The majority of CITES-listed species are native to Indonesia or Papua New Guinea rather than the Solomon Islands, but no documented exports of these species were available. The large quantities of captive-bred birds produced and exported from the Solomon Islands imply that breeding facilities housing thousands of breeding pairs must exist in the Solomon Islands. However, the Solomon Islands State of the Environment report from 2008 does not include captive-breeding of birds.⁵¹

The illegal wildlife trade in the Pacific region is reportedly well organized by opportunistic criminal networks and unscrupulous traders. New Zealand is a source, transit and destination country for the illegal wildlife trade. Between 2007 and 2011, more than 13,000 seizures of prohibited wildlife took place in New Zealand, mainly at airports.⁵² Different enforcement operations in 2011 – during which couriers of German nationality were arrested – suggest the existence of an emerging market in Europe for New Zealand lizards, specifically geckos.

The extent of the illegal trade in flora and fauna in the Pacific region remains largely unknown. Several Pacific countries are not parties to CITES, including the Cook Islands, the Federated States of Micronesia, the Marshall Islands, and Tonga. Also, some Pacific countries which are parties to CITES do not systematically submit data as required by CITES. Without the country data required by CITES, a comprehensive assessment of wildlife trafficking in the Pacific is not possible. Enforcement efforts within the region have been severely hampered by the lack of government endorsement of CITES recommendations and calls for action against the illegal wildlife trade.

⁵⁰ Based on data from the Wildlife Enforcement Group, Agriculture and Forestry Conservation Department, New Zealand Customs Service.

⁵¹ Shepherd and others (in press).

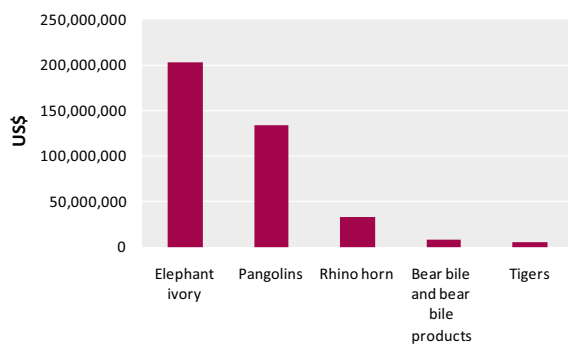
⁵² Information provided to UNODC by New Zealand Customs and the Department of Conservation.

prices. Nonetheless, they do not capture the size of the phenomenon either in terms of aggregate volumes and values or in terms of geographic coverage. On the other hand, seizure data provides useful information on the volumes of the illegal wildlife trade, but the official data often fails to meet requirements of quality, consistency and regularity in the collection and recording phase.

Based on existing literature, and on the selection of the limited data sources in this area, a conservative estimate for the illegal trade in selected mammal species to and within Southeast Asia and the Pacific is close to US\$400 million, with more than half of this trade involving ivory products (see chart below).⁵³ Surprisingly, the value of the black market for relatively unknown species – such as pangolins – dwarfs the value associated with the rarer, emblematic species, like tigers, which nevertheless provide a highly profitable niche for organized crime networks.⁵⁴

Although precise information is not available, it is often reported that traffickers can obtain around US\$50,000 from the sale of one wild tiger or up to US\$60,000 per kilogram of rhino horn. According to analysis conducted within UNODC, the profit margins for this trade have reached values that can

Figure 1: Value of the illegal wildlife trade in East Asia and the Pacific



Source: UNODC

⁵³ These estimates have been developed by UNODC on that basis of limited information collected through existing publications, media and consultations with NGOs. The sample of mammals analyzed is limited to those for which studies and information exist. Incomplete data in relation to seizures and conservative estimates in relation to prices make these estimates only partially reliable and reduced to a bare minimum value.

⁵⁴ Prices for tiger parts, rhino horns and ivory products have spiked in the recent years, as a result of increased demand and a dwindling (and finite) supply.

be compared with other forms of transnational organized crime such as methamphetamine and heroin trafficking.

Contrary to common misconceptions, the largest black market in wildlife products in the region is not related to mammal species or reptiles but rather to marine wildlife, such as live reef fish for food, ornamental reef fish and corals. This market – which does not include off-shore illegal fishing – is estimated to generate an income of approximately US\$850 million for the criminal enterprises involved.⁵⁵

Existing studies by NGOs, as well as recent UNODC surveys among the law enforcement community, reveal that the range of wildlife illegally traded in Southeast Asia and the Pacific is significantly broader than the species mentioned above. This includes snakes, turtles, monkeys, orchids, lizards, slow loris, aloe vera, geckos and many more. Data for this trade remain extremely scattered and susceptible to miscalculations and gross oversights. A review of some of the most credible information (derived mainly from a few market surveys) indicates a market value in these species ranging from US\$500,000 to US\$1 million. Nevertheless, this value is based on isolated market “observations” at given locations (for instance some specific wildlife markets) and at given times (for instance over a period of a few days/weeks). Such observations do not therefore capture the real size of the phenomenon neither in terms of annual revenues nor in terms of regional coverage.

Based on the above analysis and in consideration of the fact that the actual value of the illegal wildlife trade in the region should encompass more species, more countries, and highly volatile prices at retail level, a conservative estimate values the regional illegal wildlife trade at **US\$2.5 billion** a year, excluding illegal timber and off-shore fishing. This amount includes wildlife that it is either traded in a completely clandestine manner as well as wildlife that is concealed, mis-declared and/or disguised within legal shipments.

⁵⁵ These estimates have been developed by UNODC and TRAFFIC on the basis of information gathered through Oka 2011; Wabnitz and others 2003; and Monticini 2010. Final calculations are based on the assumption that 75% of the total amount of global trade in ornamental reef fish and live reef fish for food is illegal at catch or trade stages.